

Monte Cristo Mining Area
Remedial Investigation Phase 2
Summary Report

Prepared for
Washington State
Department of Ecology

May 31, 2012
17800-06

HARTCROWSER

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Prepared by
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1.0 EXECUTIVE SUMMARY

Hart Crowser conducted four field sampling trips in the Monte Cristo Mining Area (MCMA) between July 8 and September 30, 2011. Each sampling trip was 5 to 6 days duration. The purpose of these trips was to:

- Locate selected representative mines and prospects that were identified in the Phase I literature review (see Tables 1 and 2, Hart Crowser 2011a);
- Sample potentially impacted soil and waste rock from the mine features we located; and
- Collect background soil samples to enable statistically valid comparisons.

The sampling trips characterized abandoned mine workings located in the three watersheds that form the headwaters of the upper South Fork Sauk River: Weden Creek, Glacier Creek, and Seventysix Gulch.

Sample analytical results are presented in this report along with a Terrestrial Ecological Evaluation (TEE, in Appendix C) that was developed in accordance with WAC 173-340-7493.

We completed a problem formulation screening analysis and literature review to assess risks to terrestrial ecological receptors. The three watersheds were subdivided into five ecological exposure areas based on terrain features and site use.

Seventeen constituents of potential ecological concern (COPECs) were identified based on the TEE, within one or more of the ecological exposure areas. The COPECs include aluminum, antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc.

Ecological Exposure Area 1 (Process Area) had the highest number of COPECs (13), while Area 5 (Weden Creek Watershed) had the fewest COPECs (7). Copper, iron, and zinc were COPECs at all five areas; beryllium and vanadium were not COPECs at any area.

Risk-based criteria (RBCs) for protection of human health and terrestrial receptors are the lowest of:

- Applicable or relevant and appropriate requirements (ARARs);

- Ecological indicator soil concentrations (EISCs); and
- Ecological soil screening levels (EcoSSLs).

Field Work and Findings

The first field trip was a reconnaissance to obtain samples and to identify the most effective approach and logistical constraints for the subsequent sampling efforts. The first trip was described in our reconnaissance report (Hart Crowser 2011d).

During the four sampling trips in 2011, we attempted to locate 18 abandoned mine sites that had not previously been characterized. Twelve mines and/or prospects (collectively referred to as mine features) were located and observed for the presence or absence of vegetation, wildlife, water bodies, and other relevant conditions. Waste rock samples were collected where possible.

We collected 50 background soil samples and 43 samples from waste rock at twelve mine sites in the three watersheds. Discrete samples were collected at an upper depth (0 to 6 inches) and, where possible, a lower depth (6 to 12 inches) at two to three locations on the waste rock pile associated with each adit. In addition, we collected a 30-point, multi-increment sample (MIS) from the Potomac Silver waste rock pile. A summary of conditions at these sites is presented below.

- We found four mine tunnel openings (adits) in the Glacier Creek Watershed that appear to be the mine workings identified as Potomac Silver, IXL Mine, Pusher Lode, and Portland No. 2. At these locations we sampled waste rock piles that had the following approximate volumes:

Table ES-1 – Glacier Creek Watershed Waste Rock Volumes

Mine Adit Name	Estimated Waste Rock Volume (in cubic yards)
Potomac Silver	95
IXL Mine	20
Pusher Lode	3,500
Portland No. 2	100

Antimony, arsenic, copper, mercury, and silver exceeded both the RBC and site-specific background for the discrete samples at all four waste rock piles and the MIS at Potomac Silver (see Table 21). One interesting result was

that for some constituents, the MIS sample had 4 to 50 times greater concentrations than the discrete samples collected from the same waste rock pile.

- We found six mine adits in the Seventysix Gulch Watershed that appear to be the mine workings identified as the Independence of 1776 Mine, Emma Moore No. 1, 74 Mine, Ibex No. 1, O&B Mine, and Congress Mine. At these locations we sampled waste rock piles that had the following approximate volumes:

Table ES-2 – Seventysix Gulch Watershed Waste Rock Volumes

Mine Adit Name	Estimated Waste Rock Volume (in cubic yards)
Independence of 1776 Mine	260
Emma Moore No. 1	90
74 Mine	27
Ibex No. 1	1,250
O&B Mine	3,000 + 1,500
Congress Mine	--

We collected two to six samples from the waste rock pile(s) associated with each adit. The coarse substrate at a number of the locations prevented collecting a lower-depth (6 to 12 inches) sample.

Antimony, arsenic, cadmium, cobalt, copper, iron, lead, manganese, mercury, silver and zinc concentrations for at least five of the six waste rock piles exceeded both the RBC and background (see Table 21).

- We found two mine adits in the Weden Creek Watershed that appeared to be the mine workings identified as Mackinaw Tunnel No. 1 and Mackinaw Tunnel No. 2. At these locations we sampled waste rock piles that had the following approximate volumes:

Table ES-3 – Weden Creek Watershed Waste Rock Volumes

Mine Adit Name	Estimated Waste Rock Volume (in cubic yards)
Mackinaw Tunnel No. 1	46
Mackinaw Tunnel No. 2	35

Waste rock at Mackinaw Tunnel No. 1 exceeded RBC and background for barium, chromium, and nickel. Antimony, arsenic, cadmium, copper, iron, lead, and zinc exceeded both criteria at Mackinaw Tunnel No. 2 (see Table 21).

Documentation on the mine features we visited is available from a variety of sources as noted in our April 20, 2011, report. Some of the mine features had relatively extensive mine workings, whereas other sites were prospects with only limited mine development. Mine claim records exist for all but two of the sites (O&B Mine and Comet Mine) that we visited or attempted to locate for this study, and many of these are patented claims located within the boundaries of National Forest System Lands.

Human and Terrestrial Ecological Receptor Risks

Human health risks are limited to recreational users of the site. Although several of the mine workings are within a quarter mile of Forest Service campgrounds or hiking trails, a significant amount of effort was required to locate and access most of the mine sites we sampled. The location of these mine features relative to existing trails and/or campgrounds is shown on Figures 8A through 8D. Washington's Model Toxics Control Act (MTCA) Method B screening levels likely overestimate risk to recreational users since their exposure duration is much less than the duration for a residential scenario. As shown in the table below, MTCA Method B values are based on a 365-day residential scenario and subsequently have much more conservative cleanup levels than a typical recreational user for this area (e.g., a hiker or camper that spends only a few days to a few weeks each year).

Table ES-4 – Recreational User Scenario Cleanup Levels

Cleanup Level (mg/kg)	MTCA Method B 365 days	Minimum 3 days	Maximum 30 days
Aluminum	--	--	--
Antimony	32	3900	390
Arsenic	0.67	82	8.2
Barium	16000	1900000	190000
Beryllium	160	19000	1900
Cadmium	80	10000	1000
Calcium	--	--	--
Chromium	240	29000	2900
Cobalt	--	--	--
Copper	2960	360000	36000
Iron	24000	2900000	290000
Lead	--	--	--
Magnesium	--	--	--
Manganese	11200	1360000	136000
Mercury	24	2900	290
Nickel	1600	190000	19000
Potassium	--	--	--
Selenium	400	50000	5000
Silver	400	50000	5000
Sodium	--	--	--
Thallium	5.6	680	68
Vanadium	560	68000	6800
Zinc	24000	2900000	290000

Note: Based on the MTCA Equation 740-1.
MTCA default equations are based on a child exposure (16 kg average body weight)

For all three watersheds, we documented mine site-specific observations of terrestrial ecological receptors. Limited vegetation, wildlife or signs of wildlife, and/or macroinvertebrates were observed at all of the mine locations.

Vegetation did not appear to be distressed. Distressed vegetation may be dead, discolored (i.e., yellowing), or withered, or, there may be bare ground in a vegetated area or an area that differs from the surrounding vegetation for no apparent reason. Distressed vegetation can typically be identified during regular site observations.

Additional Observations

Drainage through the waste rock piles and/or mine adit drainage was observed at several sites during sample collection; therefore, we recommend shallow groundwater sampling be considered and as applicable, surface water sampling, as part of future characterization work.

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ACRONYMS

AML	abandoned mine lands
ARAR	applicable or relevant and appropriate requirements
BLM	Bureau of Land Management
COC	constituent of concern
COPEC	constituent of potential ecological concern
DNR	Department of National Resources
Ecology	Washington State Department of Ecology
EcoSSL	ecological soil screening level
EEA	ecological exposure area
EISC	ecological indicator soil concentration
EPA	US Environmental Protection Agency
EPC	exposure point concentration
MCMA	Monte Cristo Mining Area
MCPA	Monte Cristo Preservation Association
MIS	multi-increment sample
MTCA	Model Toxics Control Act
ND	non-detect
RBC	risk-based criteria
SFSR	South Fork Sauk River
SOW	Statement of Work
TEE	terrestrial ecological evaluation
UCL	upper confidence limit
USFS	US Forest Service
USGS	US Geological Survey
WAC	Washington Administrative Code
XRF	x-ray fluorescence

MONTE CRISTO MINING AREA
REMEDIAL INVESTIGATION PHASE 2
SUMMARY REPORT

2.0 INTRODUCTION

This report summarizes our observations and the analytical results of soil samples from selected mine sites in the Monte Cristo Mining Area (MCMA) near Granite Falls, Washington (Figure 1). These mine sites were chosen because they have not been sampled before. Hart Crowser performed this investigation for the Washington State Department of Ecology (Ecology) under Contract No. C1100144F. Work was conducted in general accordance with the Ecology Statement of Work (SOW) and our project Sampling and Analysis Plan (Hart Crowser 2011c).

The objectives of this initial investigation were to:

- Locate selected representative mines and prospects that were identified in the Phase I literature review (see Tables 1 and 2, Hart Crowser 2011a);
- Record observations of the site conditions and document the plants, macroinvertebrates, and animals present at and near each mine feature visited;
- Sample potentially impacted soil and waste rock from the mine features located; and
- Collect background soil samples to enable statistically valid comparisons.

At the mine feature locations, samples were collected from the soil-like fraction of waste rock and/or natural soil near the waste rock that was potentially affected by mining activities. Analytical results were compared to the background soil sample concentrations and Washington's Model Toxics Control Act (MTCA) Method B criteria for protection of human health and soil screening criteria for protection of terrestrial receptors. For purposes of this report, the use of terms such as "tailings" or "waste rock" are for convenience only and are considered to be a soil, consistent with WAC 173-340-200.

Subsurface openings observed for this study may include shafts, adits, prospect pits or trenches, collapsed stopes, tunnels, and/or excavations completed for other purposes. The terms used in this report are based on visual interpretation in the field and may not fully characterize historical site use.

Before we began the field sampling, we performed a Phase I Environmental Site Assessment (Hart Crowser 2011a), which included a review of historical maps and documentation; evaluation of aerial photographs and US Forest Service and US Geological Survey (USGS) maps; and a review of the county tax assessor records. The purpose of this review was to:

- Identify the approximate location of mines and associated features/structures;
- Identify the location of mine claims; and
- Identify potential routes and/or restrictions to access each mine site.

A site reconnaissance was conducted from July 8 through July 13, 2011, and three additional sampling trips were conducted on August 22 through 27, and September 12 through 16 and 26 through 30, 2011. Table 13 summarizes activities completed during these field events in chronological order. Table 14 presents the project team members and their roles and responsibilities for this investigation. Some tables are presented in the text of this report, and others are separate, following the main text.

The presumptive locations of the mine features were determined by using historical mine records to estimate global positioning system (GPS) coordinates. We located and sampled four abandoned mine entries in Glacier Creek Watershed, six in Seventysix Gulch Watershed, and two in Weden Creek Watershed. We also attempted to locate three additional mine features in the Glacier Creek Watershed, four in Seventysix Gulch Watershed, and one in the Weden Creek Watershed, but did not observe any mine workings at these locations. At each location where mine features were not observed, we extended our reconnaissance by 100 to 200 feet around each location, depending on terrain.

3.0 SITE DESCRIPTION AND OPERATIONAL HISTORY

The Monte Cristo Mining Area (MCMA) is located at the headwaters of the South Fork Sauk River (Figure 1). Three smaller watersheds (Glacier Creek, Seventysix Gulch, and Weden Creek) form the headwaters of the South Fork Sauk River approximately 6 miles upstream of Monte Cristo Lake. The MCMA comprises a number of abandoned mines and prospects scattered throughout the three watersheds. Select information on the areas, habitats, mines, prospects, and facilities discussed in this report can be found in Table 15.

The area is a popular destination and is accessible to hikers by a washed-out dirt road which runs south from Barlow Pass on the Mountain Loop Highway. The

road crosses over and follows along the South Fork Sauk River to the Monte Cristo Townsite (Townsite). There is currently no vehicular access to the area.

Historical mine claim survey plats are available through the Bureau of Land Management Land Status and Cadastral Survey Records (provided in Appendix A of the 2011 Phase 1 Spatial Analysis Report, Hart Crowser 2011a). Each watershed is described in further detail below.

Mine entries are notoriously referred to in prohibited sources for this area as "adits" or "tunnels." Since the reason for using one term or another is not always clean, this report follows the same terminology.

3.1 Glacier Creek Watershed

The Glacier Creek Watershed is characterized by rock, snow, and ice. The low-elevation portions of the watershed contain forested areas with a shrub-dominated understory. Forested vegetation is dominated by grand fir, subalpine fir (*Abies lasiocarpa*), and cedar with understory vegetation consisting of blueberry (*Vaccinium* sp.) and huckleberry (*Vaccinium* sp.) with devil's club (*Oplopanax horridus)*, vine maple (*Acer circinatum*), and salmonberry (*Rubus spectabilis*) common near drainages and seeps. High-elevation areas are dominated by rock and seasonal snow and ice which support small forested stands, low-growing shrubs such as mountain-heather (*Phyllodoce* sp. and *Cassiope* sp.), lichen, and moss. Talus slopes and rocky outcrops are common features in this watershed.

Glacier Creek flows in a northerly and westerly direction into the South Fork Sauk River from its headwaters (Figure 1). Snowmelt serves as the primary water source for Glacier Creek. Snowmelt likely enters the creek as surface runoff, groundwater base flow, and seasonal seeps. The following mines/prospects were observed in the field and are shown on Figures 2A through 2C. Additional information on the individual mine features is presented in Tables 1 and 2 of Hart Crowser (2011a).

3.1.1 Potomac Silver

The Potomac Silver Mine claim was located on September 29, 1891, and is identified as Mineral Survey No. 301 on the survey. The claim was surveyed on August 16, 1892, by Alex M. Reynolds.

One 32-foot long adit and one trench are shown on the survey plat (BLM 2011). This survey plat is reproduced as Figure A-8 in Appendix A of the Hart Crowser 2011a. According to the Mineral Resources of the Glacier Peak Rare II Area

Summary Report (Johnson et al. 1983), the Potomac Silver Mine produced gold, silver, copper, lead, and zinc.

The Potomac Silver Mine is located approximately 2 miles up the Glacier Basin Trail from the Townsite and about 100 yards southwest of the trail (see Table 15 for coordinates). The adit's waste rock pile is visible from the trail. The dimensions of the waste rock pile are approximately 51 by 25 by 2 feet (approximately 95 cubic yards [cy]) and followed the slope of the underlying terrain (about 33 degrees). A sketch is presented on the abandoned mine lands (AML) datasheet in Appendix A, along with site photographs.

Seepage and still water were present in the adit at the time of our observations in August 2011. The soil between the tunnel entrance and the waste rock pile was saturated. Based on this observation, it is likely that the water within the adit would flow from the tunnel on a seasonal basis.

A 1-inch steel cable was found northwest of the pile. The cable ran upslope and may have extended to other mine workings. The field team followed the cable up the mountainside for several hundred yards. Additional smaller debris was found on the mountainside. The end of the cable was not located because of time limitations.

3.1.2 IXL Mine

The IXL Mine claim was located on June 26, 1890, and is identified as Mineral Survey No. 157 on the survey. The claim was surveyed from September 14 through 19, 1891, by Richard H. Stretch (BLM 2011).

A tunnel and waste rock dump are identified on the survey plat. According to the Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983), the IXL tunnel was 24 feet long. The mine produced gold and silver.

The IXL mine is located approximately 2.25 miles up the Glacier Basin Trail from the Townsite, south of the Potomac Silver mine. The IXL tunnel is located about 100 yards southwest of the trail (see Table 15 for coordinates). There is a large boulder field between the trail and the tunnel. The dimensions of the waste rock pile are approximately 28 by 6 feet (approximately 20 cy) with a slope of 38 degrees. The depth of the waste rock pile could not be accurately assessed by the field team. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

Groundwater seepage was observed in the tunnel at the time of our visit in August 2011. The slope between the tunnel and the waste rock pile was steep and very wet. This tunnel was difficult to access and the waste rock pile was difficult to sample because of the steep slope and wet ground.

Vegetation was present on and around the steep slope and waste rock pile. It appeared the emergent vegetation had been disturbed either by an animal or water flowing down the steep slope because it was crushed and flattened in the area adjacent to and upslope of the opening. Dominant vegetation included subalpine fir, which became patchy downslope.

3.1.3 Pusher Lode

The history of the Pusher Lode is relatively unknown. Mine operations and working information is not available. The Pusher Lode claim was located (along with the Philo and Meridian Lodes) on September 27, 1899, and is listed as Mineral Survey No. 1167. The claim was surveyed from July 15 to August 2, 1921, by Frank H. Copp.

A discovery tunnel and two additional tunnels are shown in the Pusher Lode claim on the survey plat for Pusher Lode. Table 2 of the Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983) lists some information about the Pusher Lode Mine, notably that the Pusher Lode had mine workings and production from three adits that were 32, 47, and 104 feet long.

The tunnel and waste rock pile are located approximately 3/4 mile up the Glacier Basin Trail from the Townsite. The tunnel was located at the top of a boulder field in an opening of the trees located at the base of a cliff face (see Table 15 for coordinates). The orange waste rock pile is partially visible.

The tunnel dimensions are approximately 5 by 5 by 45 feet. Water was present within the tunnel. The waste rock pile is located southwest of the tunnel opening. The pile dimensions are approximately 105 by 226 feet with an estimated depth of 4 feet (approximately 3,500 cy). Samples collected are described below in Section 4.1.1. A sketch is presented on the AML data sheets in Appendix A, along with site photographs.

3.1.4 Portland No. 1

The history of the Portland No. 1 is also relatively unknown. Mine operation and working information is not available. This claim was located on July 14, 1915, and is listed as Mineral Survey No. 1165. It was surveyed from July 15 to August

2, 1921, by Frank H. Copp. A discovery tunnel and one additional tunnel are shown on the survey plat (Appendix A).

Table 2 of the Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983) provides some information about the Portland No. 1 mine. Johnson et al. reports that the area has two adits that were 51 and 65 feet long, which produced silver, gold, copper, lead, and zinc ore.

From the Pusher Lode tunnel, the field team continued southeast across the base of the cliff face to the expected location of Portland No. 1. Progress was difficult because of steep terrain, overgrown vegetation, and time limitations. No mine features were observed at the presumed location of the Portland No. 1 mine or in the immediate area. There was a drainage channel further southeast, and it is possible that the Portland No. 1 mine is located there. This area could be investigated further in a future sampling event.

3.1.5 Portland No. 2

The history of the Portland No. 2 is relatively unknown. Mine operation and working information is not available. This claim was located on July 14, 1915, and is listed as Mineral Survey No. 1165. It was surveyed from July 15 to August 2, 1921, by Frank H. Copp. A discovery tunnel and one additional tunnel are shown on the survey plat (Appendix A).

The Portland No. 2 tunnel is located approximately 2 miles up the Glacier Basin Trail from the Monte Cristo Townsite on the eastern slope of the basin (see Table 15 for coordinates). From this tunnel opening, the field team had a clear view into the Potomac Silver adit across the valley to the west. According to the Portland No. 2 survey plat, there is an additional tunnel on the claim. It appeared there could potentially be another tunnel located further upslope and south of the opening we found; however, due to very steep terrain, we could not explore this further.

The tunnel opening is mostly collapsed, so it was not possible to estimate its depth. Water was dripping from within the opening at the time of our observations in late September 2011. The associated waste rock pile was approximately 63 by 21 by 2 feet (approximately 100 cy) with a 38 degree slope. The waste rock pile had small debris (broken glass, steel cable, and rusted pipe) on it. Samples collected are described below in Section 4.1.1. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

3.1.6 Meridian and Philo Lodes

The history of the Meridian and Philo Lodes are relatively unknown. Mine operations and working information are not available. Both the Meridian and Philo Lode claims were located (along with the Pusher Lode) on September 27, 1899, and is listed as Mineral Survey No. 1167. The claim was surveyed from July 15 to August 2, 1921, by Frank H. Copp.

These locations were considered a lower priority because of the limited information available on their operational history. The field team did not attempt to hike to these mines. While hiking to other, higher priority locations, the field team did try to spot any areas that looked like tunnel openings or waste rock piles using binoculars from the Glacier Basin Trail, but we did not see any areas that looked promising.

3.2 Seventysix Gulch Watershed

The Seventysix Gulch Watershed is characterized by a predominantly forested landscape interspersed with rock and seasonal snow and ice. Dominant vegetation is similar to the Weden Creek and Glacier Creek Watersheds, and consists of an overstory of Douglas-fir, true firs, hemlock, and cedar with an understory of shrubs. Evidence of historical timber harvest can be observed near established trails. High elevation areas contain a combination of forest stands, talus slopes, and rocky outcrops.

Seventysix Gulch generally flows in a northerly direction into the South Fork Sauk River (Figure 1). Snowmelt serves as the primary water source for Seventysix Gulch, which is reported to go dry during the late summer months (personal communication with Trey, US Forest Service volunteer, July 2011). Groundwater base flow and seasonal seepage likely contribute to surface water flows during the spring and early summer. Silver Lake is located near Poodle Dog Pass on the southwestern ridge of the Seventysix Gulch Watershed, and is a popular destination for recreational users.

3.2.1 Independence of 1776 Mine

This claim was located on July 4, 1889, and is listed as Mineral Survey No. 175. The claim was surveyed from August 27 through September 3, 1891, by Richard H. Stretch.

A tunnel is identified by the Independence of 1776 Mine (hereafter referred to as 76 Mine) survey plat. The 76 Mine produced gold, silver, zinc, and possibly copper. According to the Mineral Resources of the Glacier Peak Rare II Area

Summary Report (Johnson, et al. 1983), the 76 Mine workings and production include three adits that were 19, 151, and 681 feet long. The longer adit is partially caved (Johnson, et al. 1983). Based on a historical letter (Sauers 1971) provided by the Department of Natural Resources (DNR), the 76 Mine is a patented claim.

The 76 Mine is situated between two obvious drainages. The first drainage (north) appears to run toward Comet Mine and contains 12- to 14-foot-high walls starting at the bottom. The southern drainage is less obvious and is expected to meet with the Ranger Claim at higher elevations. The 76 Mine adit is located at the base of the cliffs between these two drainages within thick vegetation (see Table 15 for coordinates). There is a rusty pipe that runs up the hillside from the 76 Mine toward another waste rock pile that we did not visit. We also observed another waste rock pile downslope (to the west) of the 76 Mine adit that we did not visit.

The 76 Mine opening is approximately 5 by 4 feet and had water flowing from the entrance at the time of our observations in mid-September 2011. The entrance runs approximately 15 feet directly into the cliff before curving to the right for about 30 feet. Water was encountered flowing from the mine opening and through a defined channel that bisected the waste rock pile. The water from the mine infiltrates about 20 to 30 feet from the opening. The terrain slopes steeply at approximately 50 degrees. The waste rock pile is approximately 40 by 60 by 3 feet (approximately 260 cy) with some vegetation cover (alder and cedar saplings).

We observed an apparent waste rock pile upslope from the 76 Mine and potentially another adit, but we were not able to access this area due to the steepness and difficulty of the terrain. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

3.2.2 Emma Moore Mine

This claim was located on August 31, 1889, and is listed as Mineral Survey No. 171. The claim was surveyed from August 25 through September 8, 1891, by Richard H. Stretch.

The Emma Moore Mine survey plat does not identify any tunnels within the claim. Based on a map provided by the Department of Natural Resources (DNR, Wolff 2010), the Emma Moore Mine is a patented claim involved in a land swap to USFS around 1996. The Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983) indicates the Emma Moore Mine workings included one 41-foot adit. However, the Monte Cristo

Preservation Association (MCPA 2011) provided a map which identifies two Emma Moore tunnels, designated as No. 1 and No. 2. From the GPS coordinates of the sampling locations, it appears that the field team located and sampled Emma Moore No. 1 but mistakenly identified it as Emma Moore No. 2 on the AML and TEE data forms. Emma Moore No. 2 was not located or sampled by Hart Crowser.

The Emma Moore No. 1 adit is on the western slope of the Seventysix Gulch Watershed at an elevation of approximately 4,200 feet above mean sea level (see Table 15 for coordinates)[1]. No surface water was encountered in the drainage. The waste rock pile is downslope of the adit.

The adit opening is approximately 5 by 4 feet. The terrain slope is steep at approximately 40 to 45 degrees. The waste rock pile is approximately 60 by 20 by 2 feet high (approximately 90 cy). Cedars, firs, and grass are established along the walls of the drainage.

Field observations noted that an attempted mine entry appears to be about 40 feet south of Emma Moore No. 1 on the opposite side of the drainage. This opening may be Emma Moore No. 2 and is approximately 10 feet tall by 12 feet wide. Talus slopes from the cliffs above are between the attempted mine entry and the Emma Moore No. 1. A small amount of standing water was observed at the mine opening. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

3.2.3 74 Mine

This claim was located on August 31, 1889, and is listed as Mineral Survey No. 170. The claim was surveyed from August 24 through September 8, 1891, by Richard H. Stretch.

A tunnel is identified on the 74 Mine survey plat. According to the Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983), the 74 Mine workings included one 118-foot-long adit. Based on a historical letter (Sauers 1971) the 74 Mine is a patented claim. According to the map provided by the DNR (Wolff 2010), the 74 Mine was a patented claim involved in a land swap to USFS around 1996.

The 74 Mine adit is located on the south side of a narrow drainage channel at an elevation of about 4,150 feet (see Table 15 for coordinates). The slope leading

[1] All elevations in this report are above mean sea level unless noted otherwise.

up to the adit is extremely steep and slippery due to seepage and water in the drainage channel.

The adit opening is approximately 6 by 4 feet, but length could not be determined. The terrain slope is approximately 43 degrees. A waste rock pile is located downslope of the adit opening, and has dimensions of approximately 20 by 12 by 3 feet (approximately 27 cy). There was limited vegetation on the waste rock. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

3.2.4 IBEX No. 1

This claim was located on May 12, 1890, and is listed as Mineral Survey No. 158. The claim was surveyed from August 27 through September 3, 1891, by Richard H. Stretch.

The IBEX No. 1 mine survey plat identifies a 40-foot-long tunnel, but the extent of any other mine workings is relatively unknown. According to the Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983), the mine workings include one 86-foot-long adit. Based on the map (Wolff 2010) provided by the Department of Natural Resources (DNR), the IBEX No. 1 Mine is a patented claim involved in a land swap to the US Forest Service around 1996.

The IBEX mine is located in the Seventysix Gulch Watershed, approximately 1.4 miles upstream from the confluence of Seventysix Gulch and Glacier Creek. The claim is located approximately 1000 feet east of Seventyxis Creek, up a steep partially vegetated talus slope. The mine adit was found along a cliff band, between two unnamed drainages at approximately 4,200 feet elevation. There is a small, relatively level area at the base of the mine opening, and a small berm that separates the downslope waste rock pile from the mine opening area. The waste rock pile is located below the mine, and is approximately 150 by 75 by 3 feet (approximately 1,250 cy) and is located on a steep (approximately 45 degree) slope. The waste rock pile is bordered by a young to semi-mature stand of trees to the north and a partially vegetated talus slope to the south.

The adit appears to follow a nearly vertical weathered ore vein that is visible above the mine opening. The mine opening is approximately 5 by 5 feet and approximately 93 feet long. A rusted wheelbarrow and a few tin cans were the only visible mining debris. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

3.2.5 O&B Mine

The upper and lower tunnels of the O&B Mine were located using directions provided by Woodhouse (1997). The mine is located above the Townsite to the southwest. According to Woodhouse (1997), the mine was recorded with the county auditor on August 11, 1891. Woodhouse (1997) reports that the mine had tunnels on three levels, with one caved-in level. An incomplete Mine Power Survey form indicates that there were four levels. The Mine Power Survey also states that there were no patented claims and 13 unpatented claims in this area (A.H. Reiser, 1940). Historical mine claim survey plats are not available.

The O&B tunnels are located northeast of Silver Lake, immediately north of the Seventysix Gulch Watershed (see Table 15 for coordinates). They are included in this section for convenience.

The field team was able to reach the upper and lower tunnels of the mine. There were at least three distinct waste rock piles in the area: two below the upper tunnel, and one below the lower tunnel.

At the upper tunnel, it appeared that one pile is from the upper tunnel and the second pile (downslope) is from a collapsed tunnel. The upper tunnel waste rock pile was roughly estimated to be 168 by 80 by 6 feet (approximately 3,000 cy) with a slope of 43 degrees. Water was seen flowing downslope along the side of the pile at approximately 0.5 liters per minute (L/min) at the time of our observations in late September 2011. Based on our observations, the water likely infiltrates the subsurface near the toe of the slope of the hillside. Mine feature and waste rock samples collected at the upper tunnel and the associated waste rock pile are discussed below in Section 4.2.1.

Due to time constraints we did not sample the waste rock pile of the collapsed tunnel.

The lower tunnel also had a large waste rock pile that was approximately 200 by 25 by 8 feet (approximately 1,500 cy) with a 30-degree slope. The lower tunnel had water flowing out of the tunnel directly onto and through the waste rock pile at roughly 2 L/min. The water discharging from the tunnel has caused erosion of the waste rock and flows into two separate paths that reconnect toward the bottom of the pile where a small trench has eroded. This waste rock pile and discharging water were observed on September 28, two days after heavy rainfall. Based on the prominent erosion channels, the flow is likely a consistent discharge from the tunnel, and may not be a seasonal flow. Mine feature and waste rock pile samples collected from the lower tunnel pile are

discussed below in Section 4.2.1. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

3.2.6 Congress Mine

This claim was located on July 24, 1890, and is listed as Mineral Survey No. 161. The claim was surveyed from August 24 through September 8, 1891, by Richard H. Stretch.

According to the Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983), the Congress Mine workings and production included one 67-foot-long adit. Based on the DNR map (Wolff 2010), the Congress Mine is a patented claim that was involved in a land swap to the US Forest Service around 1996.

The Congress mine claim is located in the Seventysix Gulch drainage, approximately 1.25 miles upstream from the confluence of Seventysix Gulch and Glacier Creek. The claim is located 800 feet west of Seventysix Gulch at approximately 4,360 foot elevation. One mine adit was found immediately adjacent to an unnamed drainage that runs through the claim. The drainage consists of a canyon (approximately 60 feet wide) that cuts into a steep band of cliffs, terminating at a steep, partially vegetated talus slope uphill from Seventysix Gulch.

The adit was approximately 5 by 5 feet and approximately 60 feet long. The adit appears to follow a vertical weathered ore vein that is visible at the surface. Due to the abundant water adjacent to the mine, it appeared that waste rock was dumped into the drainage and has likely been eroded downslope into Seventysix Gulch. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

3.2.7 Fontenoy Lode

This claim was located on January 2, 1902, and is listed as Mineral Survey No. 755 A&B. The claim was surveyed from December 30, 1903, to November 23, 1904, by FH Whitworth. Surface stripping and five tunnels are identified on the survey plat, but the extent of the Fontenoy Lode mine workings are otherwise unknown. Based on the DNR map (Wolff 2010) the Fontenoy Lode is a patented claim that was involved in a land swap to the US Forest Service around 1996.

Snow cover in the valley prevented access to locate the mine at the time of the reconnaissance in July 2011. The area had between one and five feet of snow

cover on a slope with scattered large boulders and fallen trees. The team attempted to visually locate the tunnel with binoculars, but could not cross the snow to reach a suitable vantage point.

3.2.8 Glacier Mine

This claim was located on July 5, 1889, and is listed as Mineral Survey No. 262 A&B. The claim was surveyed from August 10 through September 30, 1892, by Richard H. Stretch.

Two open cuts and a tunnel are identified by the Glacier Mine and Mill Site survey plat. The extent of the Glacier Mine workings is largely unknown. According to the Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983), the Glacier Mine workings include one 57-foot-long adit.

The field team attempted to locate a mine opening associated with the Glacier Claim, located in the Seventysix Gulch drainage. No definitive opening could be located within the claim, but a small cave was located south of Glacier Claim in the presumptive location of the Hopeful Mine. The field crew attempted to explore the cave, but the proximity to the waterfall and the steep grade made the ascent very treacherous.

The waterfall is located on the south side of the drainage and extends south and then west up the ridge. The cave can be easily seen from the drainage and is located on the north side of the waterfall.

3.2.9 Comet Mine

According to Woodhouse (1997), the mine was recorded with the county auditor on July 20, 1891, and was active in the late 1890s. Historical mine claim survey plats are not available for the Comet Mine.

According to the Mineral Resources of the Glacier Peak Rare II Area Summary Report (Johnson et al. 1983), the Comet Mine workings and production includes two adits containing 1,038 feet of drifts and crosscuts. Both adits are reported to be partially caved. Although an unknown amount of ore was produced, Woodhouse (1997) states that the ore taken from Comet was mostly arsenopyrite and galena.

Hart Crowser attempted to locate the Comet Mine by ascending the Glacier Claim drainage to reach the mine. The drainage was extremely steep and had very loose rock. The ascent was called off at approximately 4,950 feet elevation

after conditions became too treacherous to continue at about 450 feet below the mine's reported elevation of 5400 feet (Woodhouse 1997). Mining activity was evident on the north side of the gully; cables could be seen running along the canyon walls to a point that may have at one time been occupied by a tram (cable car) support that ran from below the mine to the Townsite.

3.2.10 Sauk Lode

This claim was located on May 19, 1891, and is listed as Mineral Survey No. 322. The claim was surveyed from April 25 through 27, 1893, by Richard H. Stretch.

Upper and lower tunnels are identified by the Sauk Lode survey plat. The extent of the Sauk Lode mine workings is unknown. The survey plat shows a trail that leads to both tunnels, but this trail could not be located; it has likely been overgrown and no longer exists. The field team was able to locate one tunnel (tentatively identified as the lower tunnel) within the Sauk Lode claim.

The Sauk Lode tunnels are located in a drainage channel of the South Fork Sauk River, approximately 1/4 mile southwest of the Monte Cristo Townsite. The lower mine opening is located in a drainage channel at an elevation of approximately 2,800 feet (see Table 15 for coordinates). The opening is about 4 by 4 by 40 feet and curves left.

Due to the tree canopy cover in this area, we were unable to get a GPS signal to pinpoint the location of the Sauk Lode tunnels. The elevation readings varied between 2872 feet and 3081 feet. The team attempted to locate the second Sauk Lode tunnel. We scoured the surrounding area for several hundred yards, both above and below the tunnel, and could not locate the second tunnel. Much of this area has fallen trees and rocks and the lower tunnel may be collapsed and not visible.

The tunnel we observed is located in a drainage channel that had flowing water at the time of our observations in September 2011. There were at least 6 inches to 1 foot of water in the tunnel. Water was flowing from above the tunnel, ponding in front of and inside the opening, and flowing downslope in the drainage channel. The channel discharges to the South Fork Sauk River. Estimated flow at the time of observations was approximately 2 L/min.

Waste rock associated with the Sauk Lode tunnel has apparently been eroded away. There was no clear delineation of a waste rock pile. Some stained rock was present in the drainage channel. What appeared to be rock debris from the

tunnel was present with some vegetation cover, but it was not a well-defined pile. The vegetation did not appear distressed.

3.3 Weden Creek Watershed

The low-elevation portions of the Weden Creek Watershed are characterized by a predominately forested landscape dominated by Western hemlock (*Tsuga heterophylla*), Western redcedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii*), grand fir (*Abies grandis*), and other true firs. Understory species consist of salmonberry (*Rubus spectabilis*), red alder (*Alnus rubra*), vine maple (*Acer circinatum*), red elderberry (*Sambucus racemosa*), ferns, and grasses, among others. Devil's club (*Oplopanax horridus*) is common, particularly near drainages, seeps, or areas with moist to wet soil conditions. Higher elevation areas are dominated by rock and snow with patchier forest stands.

Weden Creek and its associated tributaries generally flow in a northerly direction into the South Fork Sauk River (Figure 1). Numerous small streams, seeps, and seasonal drainages are present along the basin's ridges and feed into Weden Creek as either surface flows or as groundwater.

3.3.1 Mackinaw Mining Area

The Mackinaw mines consist of sixteen claims located in Section 19, Township 29N, Range 11E, Snohomish County, Washington. The field team attempted to locate three tunnels identified within the Mackinaw mining area: Mackinaw Mine Tunnel No. 1, No. 2, and No. 3.

Historical survey plats are not available for this area. However, there were 16 claims in this area based on the War Minerals Report 156 (DOI 1944). The layout of 12 of these claims in the Mackinaw Mining area is shown on Figure A-21 in Appendix A of the Spatial Analysis report by Hart Crowser (2011a).

The Mackinaw tunnels sites were accessed by a former road that extends up the east side of Weden Creek Valley for approximately 3,000 feet. After about 3,000 feet, the road ends and a trail connects this road with the mine workings about 2,000 feet further up the valley (DMM 1941). There is some variation in the exact location and elevation of the Mackinaw tunnels based on different reports, which were summarized in Hart Crowser (2011d).

The mines are located in a region of extremely rugged terrain. Mackinaw Tunnel No. 1 (Weden 1 samples) is located approximately 1 mile down the former road/trail from the South Fork Sauk River at an elevation of about 2,700 feet (see Table 15 for coordinates).

The opening is 20 by 15 feet and the length could not be measured beyond 6 feet because the tunnel sloped downward. The terrain slope is approximately 35 degrees. A waste rock pile is located immediately downslope of the opening, and has dimensions of 25 by 25 by 2 feet (approximately 46 cy). There was very little water present in the tunnel with no flow at the time of sampling in July 2011. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

Mackinaw Tunnel No. 2 (Weden 2 samples) is located at the southernmost end of the abandoned road/trail adjacent to a drainage channel that discharges into Weden Creek (see Table 15 for coordinates).

The tunnel is approximately 23 by 10 feet, and it appeared the tunnel has collapsed about 10 feet from the entrance. The terrain slope is 35 to 40 degrees. A waste rock pile is located downslope of the opening and appears to be eroding into the drainage channel. The pile dimensions are approximately 35 by 9 by 3 feet (approximately 35 cy). The drainage channel was flowing at the time of sampling and is likely ephemeral during a typical summer. Water was encountered flowing through the waste rock at the time of sampling. Estimated flow through the waste rock at the time of observations (July 2011) was approximately 2 L/min. A sketch is presented on the AML datasheet in Appendix A, along with site photographs.

Due to the terrain and loose, unstable footing, the field team attempted to visually locate Mackinaw Tunnel No. 3 with binoculars. However, we were unable to positively locate it. Ecology's representative Jason Shira was able to locate Tunnel No. 3 during the second sampling trip, but noted that there was very little waste rock material left to sample, likely due to erosion over time.

Based on the locations and elevations of mines observed during the site reconnaissance, it appears that Edward Daily's 1941 report accurately described the Mackinaw Tunnels. Daily's descriptions approximately match the locations and elevations of the mine openings where Weden 1 and Weden 2 samples were collected.

3.4 Ecological Exposure Areas

The overall MCMA was divided into five ecological exposure areas based on terrain features and site use, as part of the Terrestrial Ecological Evaluation (TEE) included as Appendix C of this report. For each ecological exposure area, the TEE identified ecological exposure pathways, and calculated the reasonable maximum soil exposure point concentrations (EPCs) where complete and significant pathways were identified.

The MCMA Site covers approximately 5,800 acres in the three watersheds (Glacier Creek, Seventysix Gulch, and Weden Creek) that comprise the headwaters of the South Fork Sauk River. Delineation of ecological exposure areas (EEAs) was based on wildlife use of the site topography and historical use of the area. For example, the talus slopes forming the ridge separating the Glacier Creek and Seventysix Gulch watersheds may act as a physical barrier to wildlife with a limited home range. In contrast, the lower portions of these watersheds are interconnected and lack the same physical barrier. Different sources of contamination (e.g., tailings versus waste rock) may also affect ecological exposures. For example, the fine-grained texture of tailings—in contrast to the coarse-grained texture of waste rock—could affect the bioavailability of constituents.[2] Five ecological exposure areas were identified (Figure 3) as follows:

- Area 1: Processing Area
- Area 2: Lower Watershed Area
- Area 3: Upper Glacier Creek Watershed
- Area 4: Upper Seventysix Gulch Watershed
- Area 5: Weden Creek Watershed

Area 1 includes the main sources of concentrated ore and processed ore: the Ore Collector, Haulage Ways, and Concentrator. The Ore Collector consists of the collapsed tramway terminal and ore storage facility and contains stockpiled ore (CES 2010). The Haulage Ways are a network of primitive roadways that connected the Ore Collector, Concentrator and Assay Shack. Coarse to fine-grained material spilled during transport along these Haulage Ways and left a thin layer of contaminated soils (CES 2010). The United Companies Concentrator (Concentrator) was a mill that processed approximately 300 tons of ore per day between 1894 and 1912. Tailings, waste rock, and contaminated soil had been identified at the former Concentrator site (CES 2010).

Area 2 comprises the lower elevation portions of the Glacier Creek and Seventysix Gulch watersheds because the available habitats (forested areas with a shrub-dominated understory) are similar and there is no topographic barrier between these portions of the two watersheds.

[2] Gradation of the waste affects potential exposure via incidental ingestion of soil by wildlife, and via potential reactivity that may cause phytotoxicity to plants. Both incidental ingestion during foraging, and incidental ingestion while cleaning of fur or plumage is anticipated to increase as the grain-size of the soil becomes finer. Finer grained particles have more surface area per unit weight compared to coarse-grained particles, which increases reactivity (e.g., oxidation of sulfide minerals that decreases pH and increases solubility and bioavailability of metals).

Areas 3 and 4 are the upper elevations of the Glacier Creek and Seventysix Gulch watersheds, respectively. Both areas had similar topography, vegetation, and relatively unvegetated rocky areas, but geographically are separated by a steep, rocky ridge. Areas 3 and 4 both had open and closed mine entries (typically adits) and waste rock piles as the primary contaminant sources.

Area 5 is the Weden Creek Watershed that is geographically separated from the majority of the historical mining activity near the Townsite. Open and closed adits and waste rock piles are the primary contaminant sources, but mining activity was on a smaller scale and occurred much later into the twentieth century compared to the rest of the MCMA.

4.0 SITE INVESTIGATION ACTIVITIES

Our field activities included the site reconnaissance and three subsequent field sampling trips conducted over the summer and fall of 2011. Details of the sampling trips are discussed below.

We conducted an initial site reconnaissance from July 8 through July 13, 2011. Before the reconnaissance, approximate locations for the mine sites of interest were identified in GIS on a topographic base map using available survey plats and/or sketches along with reported elevations to create a point location. The GPS coordinates for these point locations were loaded onto a handheld GPS and the field team used the coordinates for navigating to the mine sites. The locations are approximate but were deemed sufficient for the intended use as a guide to reach the area of the mine features.

During the site reconnaissance, we took photographs, noted GPS data points, and collected five waste rock samples. Samples were screened with an x-ray fluorescence spectrometer (XRF), and the XRF results were compared to results of total metals analyses (see Hart Crowser 2011d). Due to the relatively poor coefficient correlation (r^2) that ranged from 0.34 to 0.85 depending on constituent, XRF analyses were not used in the subsequent sampling work discussed in this report.

Following the site reconnaissance trip, we conducted three additional field sampling trips. These field sampling trips were conducted on August 22 through 27, and September 12 through 16 and 26 through 30, 2011. Additional mine feature sampling, as well as background soil samples were collected in each watershed. The background and mine feature sample locations are shown on Figures 2A through 2C.

Our objective was to collect 50 background soil samples and as many mine feature samples as possible during the three additional trips. Ten background soil samples were available from prior work by others (CES 2008): eight from Glacier Creek Watershed, two from Seventysix Gulch Watershed, but none from Weden Creek Watershed. We collected 20 background soil samples from the Weden Creek Watershed, 18 from the Seventysix Gulch Watershed, and 12 from the Glacier Creek Watershed.

Based on the surface geology present in each watershed, an equal number of background locations were identified in the four to five surface geology types represented in the watershed (Figure 4). The approximate locations of the background samples were determined based on geology, ecological setting, avoidance of areas with apparent historical disturbance, and accessibility. However, several sample locations had to be modified in the field due to difficulty of accessing the sample location and sometimes difficulty collecting the sample. Locations of the collected background samples are shown on Figures 2A through 2C.

Waste rock at the mine features in this report was predominantly coarse material (gravel, cobble, and boulder size[3]) with varying amounts of soil-like material. Some waste rock was more soil-like than the others and these exceptions are noted in the text. All sample depths in this report refer to the zone below the surficial organic layer (if present), referred to as the O horizon or the duff layer.

During our investigation of the above mine sites, we documented the vegetation, on-site wildlife (reptiles, amphibians, birds, and mammals) or signs of wildlife, and macroinvertebrates in the area around the mine features. We also documented proximity to existing water bodies and wetlands, and looked for readily visible impacts from the existing waste rock pile(s) and areas immediately adjacent to the waste rock pile(s). Details of these observations and findings are discussed in the TEE section of the report (see Appendix C). Photographs were taken at each location to document vegetation, wildlife use, and other relevant site features. Mine feature sketches are presented on the AML datasheets in Appendix A, along with site photographs.

[3] According to the Unified Soil Classification System (ASTM D-2488 and 2487), gravels are defined as 1/6 inch to 3 inches, cobbles are 3 inches to 12 inches, and boulders are the greater than 12-inch size fraction.

4.1 Glacier Creek Watershed

4.1.1 Mine Feature Sampling

We attempted to locate seven mines or prospects within the Glacier Creek Watershed. Samples were collected from four different mines within the watershed. The mine features that were sampled are discussed in the following sections.

Potomac Silver. The Potomac Silver mine is located in the Glacier Creek Watershed and waste rock pile samples are designated Potomac S1, S2, and S3. A multi-increment sample (MIS) was also collected at this location. The MIS was collected because it was reported (Smith et al. 1997 and 2000) that this approach may minimize the effects of sampling variability and subsampling errors. This approach, if applied correctly, may provide a more representative view of mean contaminant concentrations than traditional discrete sampling approaches. The MIS was collected for comparison with discrete samples collected at the same location. Results are compared in Section 6.0 to help determine if future work should include one or both collection methods.

Six discrete samples were collected from three locations of the waste rock pile of the Potomac Silver mine. Analytical results are shown below in Table 1 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 1 – Potomac Silver Analytical Results

Constituent	Risk-based criteria	Background	S-1	S-2 (0-6)	S-2 (6-12)	S-3 (0-6)	S-3 (6-12)
Antimony	5	8	3.6 J	0.94	0.5	0.32	0.43
Arsenic	0.62	262.3	***4900***	*110*	*33*	*30*	*42*
Cadmium	0.69	0.77	0.065 T	0.09 T	0.17 T	0.082 T	0.12 T
Cobalt	13	20	4.3	2	1.3	1.7	1.5
Copper	50	131	***410***	***1100***	***890***	***510***	***630***
Iron	91.2	36136	***61000***	*15000*	*8900*	*12000*	*13000*
Lead	50	71	***380***	***330***	***140***	47	*60*
Manganese	220	1242	110	140	59	44	40
Mercury	0.1	0.393	***0.5***	*0.12*	0.069	0.069	0.086
Selenium	0.3	1.639	***1.8***	*0.58* T	*0.36* T	*0.58* T	*0.79*
Silver	2	1	***28***	***4.2***	1.7	0.84	1.2
Zinc	86	151	34 J	14	23	14	20
pH				4.86	5.02	5.08	4.98

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

At each location, an upper sample was collected from 0 to 6 inches deep, and a lower sample at 6 to 12 inches deep. The first sample location (Potomac S1) was near the top of the waste rock pile. The second sample location (Potomac S2) was in a seep between the waste rock pile and the tunnel opening. Potomac S2 was selected because of the amount of water coming up from the subsurface, which is likely the same water from within the opening. The third location (Potomac S3) was taken from the toe of the waste pile. See Appendix A for the field forms sketch of this area showing the relative location of each sample.

To examine whether discrete samples at the mine features were an accurate representation of constituent concentrations a 30-point MIS was collected in addition to discrete samples at multiple depths at the Potomac Silver Mine.

The Potomac Silver waste rock pile was clearly defined and we arrived at the site early in the day (before noon). With two people collecting the sample, the MIS took approximately two hours to collect.

The MIS was collected from a depth of 0 to 6 inches below the surface of the waste rock pile on a grid across the face of the pile; each point was approximately equidistant from the others. The samples collected at each of the 30 locations were small (about two grams) and were collected by scraping the exposed 6-inch soil profile. The analytical results from the MIS and discrete samples were then compared to determine if the discrete samples were over- or underestimating metal concentrations (Table 21).

IXL Mine. The IXL mine is located in the Glacier Creek Watershed and waste rock pile samples are designated IXL S1 and S2. The historical survey plat identifies a "dump of tunnel" (i.e., waste rock pile) for the IXL Mine claim. The field team was able to locate the IXL Mine and associated waste rock pile.

Samples were collected from two locations on the waste rock pile. The waste rock pile contained a wide range of rock sizes. The waste rock was predominantly soil-like material (less than 1/6 inch) with scattered gravel, cobbles and boulders. Detailed soil descriptions of the waste rock are provided in Table 16.

Four samples were collected from the IXL waste rock pile at two locations. At each location, an upper sample was collected at 0 to 6 inches deep and a lower sample was collected at 6 to 12 inches deep. Analytical results are shown below in Table 2.

Table 2 – IXL Dump of Tunnel Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	S-1 (6-12)	S-2 (0-6)	S-2 (6-12)
Antimony	5	8	***30***	***17***	***58***	***58***
Arsenic	0.62	262.3	***4900***	***2800***	***5400***	***7800***
Cadmium	0.69	0.77	***3.6***	***4.2***	***1.9***	***2.1***
Cobalt	13	20	***23***	***23***	***21***	***24***
Copper	50	131	*120*	*130*	***150***	***170***
Iron	91.2	36136	***54000***	***48000***	***51000***	***51000***
Lead	50	71	***99***	*68*	***170***	***170***
Manganese	220	1242	***5600***	***16000***	***4600***	***6200***
Mercury	0.1	0.393	***0.74***	*0.39*	***0.92***	***0.82***
Selenium	0.3	1.639	*1.4*	*1.3*	*1*	*1.1*
Silver	2	1	0.97	1.2	***2.3***	***2.7***
Zinc	86	151	***460***	***540***	***220***	***230***
pH			5.61	5.76	4.85	4.71

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

A sketch of the waste rock pile and sample locations is provided in Appendix A. The first sample location (IXL 1 0-6 and 6-12) was on the waste rock pile, just downslope of the adit. This sample was near the top of the pile and was selected as an approximate location where water could potentially flow. The second location (IXL 2 0-6 and 6-12) was near the south edge and at the approximate toe of the waste rock pile. Due to vegetation and large boulders, the extent of the pile was difficult to estimate. See Appendix A for the field forms sketch of this area showing the relative locations of each sample.

Pusher Lode. One of the tunnels of the Pusher Lode claim was located in the Glacier Creek Watershed and identified as Pusher Lode (waste rock pile samples designated Pusher S1, S2, and S3). Six samples were collected from three locations on the Pusher Lode waste rock pile. At each location, an upper sample was collected at 0 to 6 inches deep and a lower sample was collected at 6 to 12 inches deep. Analytical results are shown below in Table 3 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 3 – Pusher Lode Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	S-1 (6-12)	S-2 (0-6)	S-2 (6-12)	S-3 (0-6)	S-3 (6-12)
Antimony	5	8	1.3 J	1.4	***20***	***19***	3.2	4.3
Arsenic	0.62	262.3	***710*** J	***990***	***31000***	***20000***	***5100***	***6700***
Cadmium	0.69	0.77	0.11 T	0.092 T	0.35	0.41	0.086 T	0.15 T
Cobalt	13	20	4.2	8	9	***29***	5	7.1
Copper	50	131	***360***	***320***	***590***	***430***	***280***	***700***
Iron	91.2	36136	*33000*	***42000***	***100000***	***83000***	***75000***	***78000***
Lead	50	71	*59*	26	16	34	13	21
Manganese	220	1242	120	190	*290*	*320*	220	220
Mercury	0.1	0.393	*0.28*	*0.18*	***0.88***	***0.7***	0.095	*0.23*
Selenium	0.3	1.639	*1.5*	*1.4*	***25***	***16***	***6.6***	***8.7***
Silver	2	1	0.47	0.58	***5.7***	***4.2***	***2.9***	***2.9***
Zinc	86	151	34	39	68	60	31	31
pH			5.28	4.63	3.53	3.76	3.66	4.04

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

A sketch of the waste rock pile and sample locations is provided in Appendix A. The first sample location (Pusher S1) was approximately 20 feet downslope to the northeast of the mine opening (see sketch for details) within an erosional path from the mine opening. The second sample location (Pusher S2) was approximately 15 feet to the northwest and downslope of the mine opening. This location is in the center of a stained area of waste rock. The third sample location was near the toe of the waste rock pile, approximately 45 feet downslope to the northwest of the mine opening. See Appendix A for the field forms sketch of this area showing the relative locations of each sample location.

Portland No. 2. One of the tunnels of the Portland No. 2 claim was located in the Glacier Creek Watershed and identified as Portland No. 2 (waste rock pile samples designated Portland 2 S1 and S2). Due to problems with the GIS layer for survey claims (see Hart Crowser 2011a), we cannot be sure if we located the Portland No. 2 discovery tunnel or the other tunnel shown on the historical survey plat.

Four samples were collected from Portland No. 2 at two locations on the waste rock pile. At each location an upper sample was collected at a depth of 0 to 6 inches and a lower sample was collected at a depth of 6 to 12 inches. Analytical results are shown below in Table 4 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 4 – Portland No. 2 Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)		S-1 (6-12)	S-2 (0-6)		S-2 (6-12)	
Antimony	5	8	***29***	J	***32***	5		3.6	
Arsenic	0.62	262.3	***1200***		***900***	***590***		***520***	
Cadmium	0.69	0.77	***9.6***	J	***16***	***2.4***		***2.4***	
Cobalt	13	20	***36***		***28***	13		*15*	
Copper	50	131	***230***		***270***	***170***		***180***	
Iron	91.2	36136	***56000***		***63000***	*21000*		*21000*	
Lead	50	71	***430***		***370***	*66*		*68*	
Manganese	220	1242	***9600***		***11000***	*1100*		*810*	
Mercury	0.1	0.393	***1.2***		0.098	*0.14*		*0.15*	
Selenium	0.3	1.639	*0.52*	T	*0.71*	*0.49*	T	*0.56*	T
Silver	2	1	***3.9***		***3.8***	0.66		0.69	
Zinc	86	151	***830***		***940***	***670***		***650***	
pH			3.19		4.79	4.66		6.13	

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

The first sample location (Portland 2 S1) was near the northeast edge of the waste rock pile, near the top of the pile. The second sample location (Portland 2 S2) was near the south edge of the waste rock pile at the toe of the slope of the pile. See Appendix A for the field forms sketch of this area showing the relative locations of each sample.

4.1.2 Background Sampling

Eight background samples from within the Glacier Creek Watershed had previously been collected by others. Therefore, the field team collected 12 samples from this area. As mentioned above, background sample locations were identified based on geology and soil type, ecological setting, avoidance of areas with apparent historical disturbance, and accessibility. Due to the extreme terrain conditions and difficulty accessing and collecting samples, some locations were modified in the field. Figure 2A shows the locations of background soil samples collected within the Glacier Creek Watershed.

Glacier Creek had many signs of bears (scat and tree markings) and birds but limited signs of other wildlife. At sample locations, typical tree cover included cedar, alder, maple, and fir. Brush cover typically included lady fern, goat's beard, and moss.

Background soil samples were typically collected below a surficial duff (or organic) layer between 1 and 5 inches below ground surface (bgs). The predominant soil type observed was a brown to light brown (some reddish brown), slightly gravelly, silty sand or gray, slightly silty fine sand. Twelve background soil samples were collected from different locations within the Glacier Creek Watershed. Analytical results can be found in Table 18.

4.2 Seventysix Gulch Watershed

4.2.1 Mine Feature Sampling

We attempted to locate ten mines or prospects within the Seventysix Gulch Watershed. Samples were collected from six different mines or prospects within the watershed. The following sections describe the mine features that were sampled.

Independence of 1776 Mine. Three samples were collected from the Independence of 1776 Mine (76 Mine) waste rock pile. The 76 Mine waste rock pile contained a mixture of medium-sized gravel to fine sand. Analytical results are shown below in Table 5 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 5 – Independence of 1776 Mine Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	S-2 (0-6)	S-2 (6-12)
Antimony	5	8	***220***	***300***	***160***
Arsenic	0.62	262.3	***11000***	***8600***	***10000***
Cadmium	0.69	0.77	***31***	***10***	***16***
Cobalt	13	20	***21***	*15*	*17*
Copper	50	131	***410***	***160***	***170***
Iron	91.2	36136	***87000***	***70000***	***74000***
Lead	50	71	***1700***	***1000***	***830***
Manganese	220	1242	***2800***	***4800***	***5600***
Mercury	0.1	0.393	***1.2***	***1.2***	***1***
Selenium	0.3	1.639	***2.3***	*0.33* T	*0.58* T
Silver	2	1	***29***	***12***	***8.2***
Zinc	86	151	***4700***	***1800***	***2200***
pH			6.46	7.3	5.68

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

The first sample (76 S1) was collected near the top of the waste rock pile, approximately 9 to 10 feet from the mine opening. The sample was collected from a depth of 0 to 6 inches on the southern side of a drainage channel. A lower sample could not be collected from below 6 inches because of bedrock or large cobbles. The second sample location was at the base of the waste rock pile on the northwest edge near the toe, approximately 50 feet downslope of 76 S1 (See Appendix A for field forms sketch). An upper sample was collected from 0 to 6 inches (76 S2), and a lower sample from 6 to 12 inches (76 S3) on the northern side of the drainage channel.

Emma Moore No. 1. Three waste rock samples were collected from the mine feature Emma Moore No. 1. Analytical results are shown below in Table 6 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 6 – Emma Moore No. 1 Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	S-2 (0-6)	S-2 (6-12)
Antimony	5	8	*5.9*	3.8	3.4
Arsenic	0.62	262.3	***2800***	***2400***	***2200***
Cadmium	0.69	0.77	***17***	***1.5***	***2.8***
Cobalt	13	20	***44***	13	13
Copper	50	131	***290***	***140***	***140***
Iron	91.2	36136	***72000***	***76000***	***75000***
Lead	50	71	***1400***	***860***	***870***
Manganese	220	1242	***5400***	***1900***	***2100***
Mercury	0.1	0.393	***0.49***	***0.51***	***0.56***
Selenium	0.3	1.639	*1.6*	*0.88*	*0.99*
Silver	2	1	***11***	***5.8***	***7.6***
Zinc	86	151	***2100***	***1300***	***1500***
pH			5.62	4.5	4.67

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

Three samples were collected at two locations from Emma Moore No. 1. The first location (Emma 2 S1) was located near the top of the waste rock pile on the northern side of a drainage channel, approximately 10 feet from the mine opening. At the first location an upper sample was collected at a depth of 0 to 6 inches. A lower sample could not be collected at the first location because of bedrock or large cobbles. The second location (Emma 2 S2 and S3) was located at the base of the waste rock pile on the northeast corner of the toe, approximately 50 feet downslope of Emma 2 S1. At the second location, an upper sample was collected at 0 to 6 inches deep and a lower sample was

collected at 6 to 12 inches deep. A sketch of the waste rock pile and sample locations is provided in Appendix A.

74 Mine. The 74 Mine tunnel was located in the Seventysix Gulch Watershed (waste rock pile samples designated 74 S1 and S2).

Samples were collected from two locations on the 74 Mine waste rock pile. Analytical results are shown below in Table 7 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 7 – 74 Mine Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	S-2 (0-6)
Antimony	5	8	*6*	***17***
Arsenic	0.62	262.3	***2600***	***5100***
Cadmium	0.69	0.77	***7.7***	***15***
Cobalt	13	20	***32***	***26***
Copper	50	131	*110*	***170***
Iron	91.2	36136	***57000***	***69000***
Lead	50	71	***1300***	***3600***
Manganese	220	1242	***5900***	***4600***
Mercury	0.1	0.393	*0.3*	*0.33*
Selenium	0.3	1.639	*1.6*	***1.8***
Silver	2	1	***5.1***	***20***
Zinc	86	151	***1200***	***2600***
pH			5.44	5.7

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

Each sample was collected from 0 to 6 inches deep. Samples were not collected below 6 inches because of bedrock or large cobbles.

A sketch of the waste rock pile and sample locations is provided in Appendix A. The first sample location (74 S1) was collected from the middle of the toe of the slope of the waste rock pile, before reaching bedrock. The second sample (74 S2) was located approximately 10 feet downslope of the mine opening and 6 feet from the cliff face. This sample was located within an erosional path from the mine opening. The field forms sketch of this area showing the approximate sample locations.

IBEX No. 1. Two waste rock samples were collected from the waste rock associated with the IBEX No. 1 adit. Analytical results are shown below in Table 8 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 8 – Ibex No. 1 Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	S-2 (0-6)
Antimony	5	8	***110***	3.9
Arsenic	0.62	262.3	***4600***	*89*
Cadmium	0.69	0.77	***5***	0.2
Cobalt	13	20	***26***	1.7
Copper	50	131	*56*	4.1
Iron	91.2	36136	***85000***	*11000*
Lead	50	71	***360***	18
Manganese	220	1242	***10000***	170
Mercury	0.1	0.393	***0.9***	0.054
Selenium	0.3	1.639	*1.1*	0.29 T
Silver	2	1	***9.2***	0.52
Zinc	86	151	***510***	22
pH			5.48	5.64

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

Two samples were collected from the top and bottom of the waste rock pile, samples IBEX-S1-0-6 and IBEX-S2-0-6, respectively. Both samples were collected form 0 to 6 inches bgs. The substrate was not conducive to collecting samples from below 6 inches because of bedrock or large cobbles.

Sample IBEX-S1-0-6 was collected approximately 40 to 45 feet downslope from the mine opening, at the top of the waste rock pile. The second sample, IBEX-S2-0-6, was located at the toe of the waste rock pile, approximately 150 feet downslope from IBEX-S1. The sample was collected from a depth of 0 to 6 inches. A deeper (6-12 inch) sample was not collected due to the extremely coarse material (See Appendix A for field forms sketch).

No water was observed in or immediately adjacent to the mine opening or the waste rock pile. The two drainage channels to the north and south of the mine were both flowing at the time of sampling but may be ephemeral during a typical summer; (this year there was a persistent snowpack in the Cascade Range).

O&B Mine. We located three waste rock piles in the area where we expected to find the "upper" and "lower" tunnels of the O&B Mine. Due to time constraints, we were only able to sample two of the three waste rock piles. We had identified these piles as O&B Upper, Middle (not sampled), and Lower, with the waste rock pile samples designated O&B Upper S1, S2 and S3, and O&B Lower S1 and S2.

Samples were collected from three locations on the upper waste rock pile and two locations on the lower waste rock pile. Analytical results are shown below in Table 9 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 9 – O&B Mine Analytical Results

Constituent	Risk-based criteria	Background	Lower S-1 (0-6)	Lower S-2 (0-6)	Upper S-1 (0-6)	Upper S-2 (0-6)	Upper S-3 (0-6)
Antimony	5	8	2	***24***	***28***	***11***	***12***
Arsenic	0.62	262.3	***4200***	***32000***	***52000***	***32000***	***20000***
Cadmium	0.69	0.77	*0.7*	***0.95***	0.53	***2***	0.54
Cobalt	13	20	6.3	***44***	***78***	***66***	***24***
Copper	50	131	***190***	***340***	***1700***	***910***	***520***
Iron	91.2	36136	***81000***	***96000***	***150000***	***200000***	***130000***
Lead	50	71	***970***	***640***	***1000***	***400***	***1200***
Manganese	220	1242	*1100*	***1400***	*320*	***2100***	*1200*
Mercury	0.1	0.393	***1***	***0.57***	***0.43***	***0.67***	***1***
Selenium	0.3	1.639	*0.55* T	***1.8***	***2.5***	***2***	*0.93*
Silver	2	1	***8.4***	***39***	***70***	***31***	***34***
Zinc	86	151	*150*	*150*	*140*	***420***	*120*
pH			1.74	4.14	3.09	5.71	2.89

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

Samples were collected from O&B Upper at three locations. At each location, a sample was collected at a depth of 0 to 6 inches. Samples below 6 inches could not be collected because of bedrock or large cobbles.

Samples were collected from O&B Lower at two locations. At each location, a sample was collected at a depth of 0 to 6 inches. Samples could not be collected below 6 inches because of bedrock or large cobbles.

The first location (O&B Upper S1) was near the northwest edge of the top of the pile and was selected in the runoff drainage pathway. The second location

(O&B Upper S2) was also located in the drainage pathway of the waste rock pile further downslope of S1. The third sample for O&B Upper (S3) was located in the middle of a stained area with signs of erosion. See Appendix A for the field forms sketch of this area showing the approximate locations of each sample.

The waste rock pile of O&B Lower had water flowing from the tunnel opening over and through the waste rock pile. The water had caused an erosional channel that split into two separate channels and later reconnected at the bottom of the pile. The first sample of this pile (O&B Lower S1) was collected near the top of the pile, within the eroded area of the channel. The second sample (S2) was collected near the base of the pile, slightly northeast of where the two channels merge together. See Appendix A for the field forms sketch of this area showing the approximate locations of each sample.

Congress Mine. Four waste rock samples were collected from the waste rock at the Congress Mine adit. Analytical results are shown below in Table 10 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 10 – Congress Mine Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	S-1 (6-12)	S-2 (0-6)	S-2 (6-12)
Antimony	5	8	***30***	***34***	***28***	***48***
Arsenic	0.62	262.3	***2200***	***2900***	***1400***	***1400***
Cadmium	0.69	0.77	***12***	***9.1***	***4.3***	***4.7***
Cobalt	13	20	***24***	***23***	***23***	***24***
Copper	50	131	***150***	***150***	*93*	*120*
Iron	91.2	36136	***57000***	***57000***	***41000***	***42000***
Lead	50	71	***1100***	***3400***	***1000***	***1200***
Manganese	220	1242	***5400***	***4500***	***3600***	***3600***
Mercury	0.1	0.393	*0.32*	***0.73***	0.028	0.028
Selenium	0.3	1.639	*1.3*	*1.4*	*1.1*	*1.2*
Silver	2	1	***6.9***	***16***	***10***	***6.2***
Zinc	86	151	***1500***	***1500***	***690***	***820***
pH			5.39	5.66	5.76	5.69

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

Four samples were collected from the waste rock pile of Congress Mine at two locations. At each location an upper sample was collected at a depth of 0 to 6 inches and a lower sample was collected at a depth of 6 to 12 inches.

The first sample location is near the top of the waste rock pile, approximately 10 feet downslope from the mine opening and 8 feet north of the south canyon wall (See Appendix A for field forms sketch). This sample location is slightly downslope of the adit because it appeared that rockfall from above the mine opening had buried the waste rock adjacent to the mine opening. The adit was partially buried by approximately 3 feet of material that was presumed to have fallen from the cliffs above.

The second sample location is at the toe of the waste rock piles, approximately 180 feet downslope from Congress-S1, just before the canyon daylights along the cliff band and the talus slope begins. See Appendix A for the field forms sketch of this area showing the approximate locations of each sample.

The waste rock pile appeared to be actively eroding with waste rock observed downslope of the mine opening, apparently carried downslope by the creek. A trickle of water, less than 4 L/min, was observed falling from the cliffs above the mine opening and flowing into the mine. The berm created by the rockfall at the mine opening prevents the water from escaping the mine. The mine adit was filled with 6 to 12 inches of water. The waste rock pile was extremely loose and was easily displaced while traversing to the mine. The slope of the waste rock pile was approximately 35 to 45 degrees.

The unnamed creek that runs through the canyon appears to bound the south side of the waste rock pile. The drainage channel was flowing at the time of sampling and is likely ephemeral during a typical summer.

4.2.2 Background Sampling

Two background samples were collected by others within the Seventysix Gulch Watershed. Therefore, the field team collected 18 samples from this area. As mentioned above, background sample locations were identified based on geology and soil type, ecological setting, avoidance of areas with apparent historical disturbance, and accessibility. Analytical results can be found in Table 18. Due to the extreme terrain and difficulty accessing and collecting samples, some sample locations were modified in the field. Figure 2B shows the locations of background soil samples collected within the Seventysix Gulch Watershed.

Seventysix Gulch had numerous signs of bears, and we observed one bear and many birds, but few signs of other wildlife. At sample locations, typical tree cover included cedar, alder, maple, and fir. Brush cover typically included lady fern, goat's beard, and moss.

Background sample locations typically had a duff (or organic) layer between 1 and 10 inches bgs, overlying a silt or sand layer. The soil samples typically consisted of dark brown to brown to light brown (some reddish brown), slightly clayey, slightly gravelly, slightly sandy silt or dark brown, grayish brown to light brown, slightly gravelly, silty sand.

4.3 Weden Creek Watershed

4.3.1 Mine Feature Sampling

Two abandoned mines were located in the Weden Creek Watershed and identified as the Mackinaw Tunnel No. 1 (waste rock pile samples designated Weden 1) and the Mackinaw Tunnel No. 2 (waste rock sample designated Weden 2).

Mackinaw Tunnel No. 1. Five waste rock samples were collected from the mine features Weden 1 (Mackinaw Tunnel No. 1) and Weden 2 (Mackinaw Tunnel No. 2). Analytical results are shown below in Table 11 and detailed soil descriptions of the waste rock are provided in Table 16.

Table 11 – Mackinaw Tunnel No. 1 Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	S-1 (6-12)	S-2 (0-6)	S-2 (6-12)
Antimony	5	8	0.54	0.33 J	0.3	0.36
Arsenic	0.62	262.3	*8.8*	*12*	*13*	*15*
Cadmium	0.69	0.77	0.26	0.36	0.22	0.25
Cobalt	13	20	***21***	***21***	***33***	***31***
Copper	50	131	*65*	*71*	*86*	*88*
Iron	91.2	36136	***73000***	***82000***	***104000***	***98000***
Lead	50	71	12	11	9.8	11
Manganese	220	1242	***1300***	*1100*	*970*	*970*
Mercury	0.1	0.393	*0.14*	*0.14*	0.09	*0.11*
Selenium	0.3	1.639	*0.71* T	*0.84* T	*0.99*	*1.1*
Silver	2	1	0.087 T	0.14 T	0.084 T	0.1 T
Zinc	86	151	65	73	84	81
pH			4.93	5.12	6.52	6.46

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

Four samples were collected from Weden 1; both an upper depth (0 to 6 inches) and lower depth (6 to 12 inches) sample was collected at two locations.

The first sample location (Weden 1 S1) was near the top of the waste rock pile, approximately 5 feet from the back wall of the mine opening before it slopes downward (See Appendix A for field forms sketch). The second location (Weden 1 S2) was located at the base of the waste rock pile on the southwest corner of the toe, approximately 25 feet downslope of Weden 1 S1 (See Appendix A for field forms sketch).

Mackinaw Tunnel No. 2. A single sample was collected from 0 to 6 inches at Weden 2. Analytical results are shown below in Table 12 and a detailed soil description of the waste rock is provided in Table 16.

Table 12 – Mackinaw Tunnel No. 2 Analytical Results

Constituent	Risk-based criteria	Background	S-1 (0-6)	
Antimony	5	8	0.35	
Arsenic	0.62	262.3	*33*	
Cadmium	0.69	0.77	0.21	
Cobalt	13	20	*18*	
Copper	50	131	*74*	
Iron	91.2	36136	*31000*	
Lead	50	71	14	
Manganese	220	1242	*240*	
Mercury	0.1	0.393	0.064	
Selenium	0.3	1.639	*0.81*	
Silver	2	1	0.08	T
Zinc	86	151	31	
pH			6.97	

	Exceeds the site-specific background listed in Table 19.
Italic	Exceeds the lowest RBC listed in Table 19.
Bold italic	Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC	Constituent of concern

The sample location was in the middle of the waste rock pile, approximately 17 feet downslope of the outer opening near the southern edge of the pile. The waste rock pile was quite narrow, confined by rock walls/ledges on both sides. Additionally, the waste rock pile ended abruptly at the edge of a drainage channel; therefore, sampling the toe of the pile was not feasible. There was no waste rock observed in the channel, but the steep gradient and high flows could potentially move material downstream of the waste rock pile. A sample could not be collected below 6 inches because of water and coarse gravel.

4.3.2 Background Sampling

No background samples had been previously collected within the Weden Creek Watershed. Therefore, the field team collected 20 samples from this area. As mentioned above, background sample locations were identified based on geology and soil type, ecological setting, avoidance of areas with apparent historical disturbance, and accessibility. Analytical results can be found in Table 18. Due to the extreme terrain and difficulty accessing and collecting samples, some sample locations were modified in the field. Figure 2C shows the locations of background soil samples collected within the Weden Creek Watershed.

Other than signs of bears, Weden Creek contained few signs of wildlife. At sample locations, typical tree cover included grand fir, subalpine fir, hemlock, and cedar. Brush cover typically included deer fern and devil's club.

Background soil samples collected on the east side of Weden Creek typically had a large duff (or organic) layer extending to between 5 and 12 inches bgs, underlain by a light reddish-brown, gravelly silty fine sand. Background soil samples collected on the west side of Weden Creek typically had a duff layer between 1 and 12 inches bgs, followed by a brown to light brown, slightly gravelly, fine sandy silt.

5.0 ANALYTICAL RESULTS

Analytical results for the background samples were used to calculate a set of site-specific background concentrations. The background concentrations were evaluated for the site as a whole (all three watersheds) as well as each watershed individually.

Analytical results for the waste rock samples, data from previous investigations, and samples of soils impacted by spilled ore, concentrate, and tailings were analyzed to develop exposure point concentrations (EPCs), i.e., the concentrations that terrestrial ecological receptors (plants, soil biota, and wildlife) would be exposed to. The background data were compared to screening criteria for protection of ecological receptors (EISCs), to identify constituents of potential ecological concern (COPECs). This comparison was accomplished for each of five ecological exposure areas within the MCMA site.

5.1 Background Concentrations

Twenty background soil samples from each of the three watersheds were used to calculate site-specific background concentrations. All background soil sample

locations are shown on Figures 5A through 5C, which includes ten samples collected by CES in 2005 and 50 collected by Hart Crowser in 2011.

Analytical results were compared to assess whether background concentrations should be pooled for all three watersheds or evaluated separately for each watershed. The software and statistical methods recommended in EPA's ProUCL statistical software package were used to determine the background concentrations.[4]

Box plots were created for each constituent in each watershed to determine if the individual watersheds appeared to have different background concentration populations. The box plots were visually examined to determine whether the boxes (which indicate the 25th percentile to the 75th percentile of the data) overlap for the three watersheds; where the boxes do not overlap, it indicates that the natural soil in the watersheds have inherently different concentrations of metals. Most of the box plots did not indicate significant differences in constituent concentrations between the watersheds, and those that did (i.e., thallium) had a high percentage of non-detects.

We also created Q-Q plots for the individual constituents in each watershed to examine the data probability distributions. If the best fit lines were drastically different in shape, this indicates the possibility of multiple background populations. Some of the constituent Q-Q plots showed slight differences in the data distributions, but there was no apparent consistent difference between the watersheds.

Finally, ratios of some constituents: copper, lead, nickel, vanadium, and zinc, were compared for pairs of background areas: Glacier/Seventysix, Glacier/Weden, and Seventysix/Weden. If constituent ratios for two background areas are similar, it suggests that the background areas are similar and can be evaluated as a single, combined background. However, no consistent trends were observed in the ratios of these constituents for the three background areas.

In addition to analyzing each watershed, we also calculated the background concentrations based on different bedrock geology types. There were two obvious bedrock geology groupings: alluvium/glacial drift and igneous volcanics. There was some evidence that these geology types may also be slightly different in the Weden Creek Watershed. However, comparing

[4] ProUCL version 4.00.005 software and supporting documentation are available online at http://www.epa.gov/esd/tsc/software.htm.

background concentrations based on these geology groupings did not reveal consistent differences in constituent concentrations.

Based on the forgoing analyses, we concluded that the three watersheds do not have distinct background concentrations. Because the data do not support calculating separate background concentrations for the purposes of this report, background concentrations were calculated using the pooled data set of 60 background samples[5] across the three watersheds (Table 17). The ProUCL test used was the "Background" using the "With NDs" setting and a confidence level of 0.8. For calculating background, MTCA [WAC 173-340-709(3) states that:

"*For lognormally distributed data sets, background shall be defined as the true upper 90th percentile or four times the true 50th percentile, whichever is lower*" and "*For normally distributed data sets, background shall be defined as the true upper 80th percentile or four times the true 50th percentile, whichever is lower*".

MTCA also allows "Other statistical methods to be used if approved by the department" [of Ecology].[6]

Iron was the only constituent that followed a normal distribution. Antimony, copper, and sodium were non-parametric and aluminum, beryllium, magnesium, selenium, silver, and thallium followed a gamma distribution. The remaining constituents analyzed—arsenic, barium, cadmium, calcium, chromium, cobalt, lead, manganese, mercury, nickel, potassium, vanadium, and zinc—followed a lognormal distribution. A summary of these values for the pooled data set as well as for the individual watersheds are shown in Table 17. ProUCL background concentration output files are provided in Appendix D.

5.2 Ecological Screening Criteria

The site-specific TEE is presented in Appendix C. The TEE consisted of three components including problem formulation where COPECs were initially identified by considering default EISCs and background soil concentrations; evaluation of alternative EISCs; and hazard characterization using the soil concentration data from the mine feature samples.

The calculated background concentrations for most of the constituents exceed MTCA's default ecological indicator screening criteria (i.e., the EISCs presented

[5] Hart Crowser collected 50 samples in 2011, and 10 samples were collected by Cascade Earth Sciences in 2005. See Table 18 for all background analytical results.
[6] For example, Ecology accepted the use of the 90th percentile for gamma and nonparametric distributions for the 2011 Washington State Background Soil Concentration Study (Hart Crowser 2011b).

in Table 749-3, WAC 173-340-900), as shown in Table 18. This is not uncommon in areas that have mineral resources.

Figures 6A through 6C illustrate the background concentrations compared to the EISCs at background sample locations throughout the watersheds (Table 19). A green symbol or green highlighting indicates that a concentration exceeds the lowest EISC, while blue indicates exceedances of the maximum all three EISC (i.e., for plants, soil biota, and wildlife).[7]

For the three watersheds, all of the background sample concentrations for the following constituents exceeded the lowest default EISC:

- Aluminum
- Arsenic
- Mercury
- Selenium
- Vanadium

In addition, chromium, copper, and zinc exceed the lowest EISC for most of the samples.

5.3 Ecological Exposure Areas and Exposure Point Concentrations

We divided the site into five ecological exposure areas (EEAs), considering topographic relief and historical site use (see Section 3.4 and Figure 3). The intended objective of delimiting the EEAs was to improve the soil exposure estimates for particular ecological receptors such as sedentary receptors or receptors that have a home range restricted by topography. Each sample collected from waste rock and potentially impacted soil (e.g., by tailings or concentrate) was assigned to an EEA in the GIS data base. A majority of the mine features did not have a sufficient sample size to run statistical analysis individually, so grouping features into EEAs allowed for statistical analysis to determine exposure point concentrations (EPCs). The reasonable maximum EPCs were then calculated for each of the EEAs using EPA's ProUCL version 4.00.005 statistical software[8] using the upper confidence limit (UCL) option. The UCL option was run using the "with non-detects" mode to accommodate

[7] The issue of whether background exceeds one or more than one of the EISC values may be of significance later in the remedial investigation process, as it may inform development of cleanup alternatives that will be considered in a feasibility study

[8] Available online at http://www.epa.gov/esd/tsc/TSC_form.htm.

data sets containing undetected values.[9] Appendix C contains tables of summary statistics for constituents in each ecological exposure area that were derived using ProUCL. ProUCL output files of general statistics and UCL estimates are provided in Attachment D.

The TEE compared the default EISCs along with background concentrations to the EPCs to identify COPECs for further analysis. Alternative ecological protection screening values obtained from published studies were then evaluated in order to refine the comparison to the default EISCs for each COPEC. These alternative criteria (primarily EPA's EcoSSLs) were, in some cases, identified to replace the default EISCs because they were based on more recent scientific studies, as discussed in Appendix C. The TEE hazard characterization compared the lowest terrestrial ecological screening criterion for each constituent to the EPC in each area of the site to define COPECs.

In most cases, the terrestrial ecological screening criteria were below concentrations that are protective of human health, but not in the case of arsenic and chromium. Table 18 compares the default EISCs, the EcoSSLs and the MTCA Method A and B concentrations that are protective of human health. The lowest of these values in Table 18 (i.e., the lowest of human health ARARs, EISCs and EcoSSLs) are the risk-based criteria (RBCs) for protection of human health and terrestrial ecological receptors.

The lowest RBC values could be considered to be proposed cleanup levels unless the lowest RBC for a particular constituent is less than the background soil concentration, in which case the proposed cleanup level is the background concentration for that constituent. We compared constituents to the lowest RBC to define constituents of concern (COCs). Table 18 indicates that the pooled site-specific background concentration exceeds the lowest RBC value for most constituents of concern: aluminum, antimony, arsenic, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, vanadium, and zinc.

Results from the comparison of the EPCs to the proposed cleanup level (based on comparison of the lowest RBC and background) are shown on Figures 7A through 7C and Table 20. A yellow/orange symbol or highlighting indicates the EPC exceeds the lowest RBC, while red indicates the EPC exceeds both the lowest RBC and background. Antimony, arsenic, cadmium, copper, iron, lead,

[9] ProUCL recommends the data set contain a minimum of 8 to 10 samples to calculate a UCL. However, ProUCL will calculate a UCL with data sets containing at least five samples, but warns the user that too few samples may be available to calculate a reliable UCL. ProUCL will not calculate a UCL when less than five samples are available. All of our data sets had a minimum of five samples.

mercury, silver and zinc are all identified as COCs for EEAs 1, 2, 3, and 4. EEA 5 had fewer COCs: arsenic, chromium, cobalt, iron, lead, nickel and vanadium. In addition, barium, chromium, cobalt, manganese, selenium and thallium were identified as COCs in at least one of the Areas 1 through Area 4. The difference may be due to geologic differences between the Glacier Creek and Seventysix Gulch watersheds compared to the Weden Creek Watershed (Area 5).

Although a number of COCs were identified in each EEA, it should be noted that the EPCs were identified based on samples from discrete mine waste areas, and are not representative of conditions throughout the watersheds. The nature of exceedances for waste rock and impacted soils at specific mine features is discussed in the following section.

5.4 Mine Features

Concentrations of COCs were also compared to preliminary cleanup values for samples from the individual features that were sampled in 2011 and previously. The following analysis includes soil sample data collected from mine features between 2005 and 2011 (Figures 5A through 5C). Because several of the sites do not have the necessary sample size (n=5) to calculate a ProUCL concentration, values represent the maximum concentration for each mine feature (Figures 8A through 8D; Table 21). All samples were collected as discrete samples with the exception of a composite sample from the Ore Collector (COL-09 (6-6.5)) and a 30-point MIS from Potomac Silver (Potomac 1). These composite samples are presented separately and are not included in the maximum value for those mine features.

Total Metals Analysis

Soil and waste rock sample analytical results are compared to site-specific background and the lowest RBC (defined as the lowest value from the applicable MTCA Method A cleanup levels, MTCA Method B cleanup levels for soil ingestion, soil ingestion and dermal contact combined, and the EISC and EcoSSL criteria for ecological protection of plants, soil biota, and wildlife).

Results of the comparison to screening criteria (lowest RBC) and site-specific background are shown on Figures 8A through 8D, Tables 1 through 12, and Table 21. A yellow/orange symbol or highlighting indicates the maximum COC value at a particular mine feature exceeds the lowest RBC but is below the background concentration, while red indicates a COC value exceeds both the RBC and background.

The concentration of the following constituents exceeded preliminary cleanup values that are based on both the lowest RBC and background (Table 21; Figures 8A through 8D) in samples from at least 25 of the 31 mine features that were sampled:

- Antimony
- Arsenic
- Cadmium
- Copper
- Lead
- Mercury
- Silver
- Zinc

Iron, cobalt, manganese and selenium were also constituents of concern at a large number of the mine features:

- Iron concentrations at 19 mine features exceeded the preliminary cleanup level based on the lowest RBC and background.

- Concentrations at more than half of the mine features exceeded the preliminary cleanup level for cobalt, manganese and selenium.

Other contaminants that exceeded preliminary cleanup levels at various mine features are shown in Table 21.

6.0 CONCLUSIONS

The site reconnaissance and three additional sampling trips were successful in locating abandoned mine workings and sampling waste rock at four locations in Glacier Creek watershed, six locations in Seventysix Gulch watershed, and two locations in the Weden Creek Watershed, for a total of 42 discrete samples and one composite sample. Additionally, the field teams collected 50 background soil samples to determine site-specific background concentrations of COPECs. Chemical analyses of these samples were combined with sample results reported by others to provide an initial risk assessment for terrestrial receptors. Outlined below are some of the findings and data gaps that may need to be addressed in future work.

1. The MCMA is a naturally mineralized area. The TEE found that background soil concentrations exceed EISC for terrestrial receptors for all of the

constituents analyzed with the exception of barium, beryllium, cadmium, silver and thallium.[10] Also, the background concentration exceeded the human health RBC for cadmium. Therefore, background concentrations in the MCMA would largely be the driver for establishing preliminary cleanup levels for protection of terrestrial receptors.

2. We used several statistical tests to see if the three watersheds had significantly different background concentrations. In looking at all the constituents of interest, the results did not indicate it would be more appropriate to use a different background data set for each individual watershed, than to pool the background results for two (e.g., Glacier Creek and Seventysix Gulch) or for all three watersheds. For the purposes of this report, we pooled all 60 background samples.

   All of the waste rock piles sampled had contaminant concentrations that exceeded preliminary cleanup levels for three or more contaminants. The selection of different background values to establish the preliminary cleanup levels (i.e., use of a different background data set for each watershed or use of pooled background data) would not eliminate any waste rock pile from exceeding the preliminary cleanup levels for one or more contaminants.

3. All of the waste rock piles sampled exceed preliminary cleanup levels; however, the extent of potential human health or ecological risk in the remainder of the watersheds has not yet been identified. Although human health risk was not a focus of our work to date, it may be appropriate to assess the exposure pathway in a way that is more consistent with actual site use (i.e., recreational, not residential or worker exposure). We recommend additional remedial investigations focused on better defining the potential impacts of the waste rock piles on human health and the environment, as discussed below.[11]

4. The potential extent of impacted soils downslope of the waste rock piles has not been characterized. We recommend characterizing potentially impacted soils by sampling along transects downslope of selected representative waste rock piles.

5. Although waste rock samples exceed preliminary cleanup levels based on published eco-risk parameters, the uncertainty analysis presented in Section

[10] Calcium, magnesium, potassium, and sodium were also detected at levels that do not produce ecological risk, and these essential nutrients were excluded from the risk assessment.
[11] However, it may be appropriate to locate and characterize the Hopeful and Emma Moore No. 2 Mine sites to better understand potential aquatic impacts as discussed later.

4.2 of Appendix C identifies several areas where the hazard analysis may overstate actual risk. Additional evaluation is recommended using plant and soil biota tissue analyses and/or an area-weighted approach as discussed in Section 6 of Appendix C.

6. The 2011 field sampling included one waste rock site where we compared the results of discrete sampling to a 30-point composite sample as recommended by USGS. Table 21 shows that MIS concentrations were significantly higher than the maximum concentration of the discrete samples for some constituents (i.e., arsenic, iron, and silver) and lower for others (i.e., aluminum, cadmium, and copper). Further, sampling and analysis would be needed to determine the number of discrete samples that would produce a 95UCL-derived EPC that is comparably representative to the MIS results. Both the MIS collection method and the effort required to hike to the remote sites were extremely time consuming, so there may be significantly greater benefit in MIS sampling for cleanup decisions, than for initial characterization. Additionally, several of the mine features did not have clearly defined edges of the waste rock pile(s) for evenly spacing the 30-point composite grid across the entire extent of the pile.

7. During this phase of sampling, Hart Crowser was not tasked with collecting surface water or adit drainage water from any of these mine features. However, we observed drainage from the mine or waste rock pile(s) that likely enters surface water downslope of Potomac Silver Mine, Independence of 1776, 74 Mine, Congress Mine, O&B – lower adit, and Mackinaw Tunnel No. 2. The effect of seepage infiltration from other mine features may impact groundwater and surface water quality. Although we did not visit the Hopeful and Emma Moore No. 2 Mines, they appear to be located near and may impact surface water. It may be appropriate to assess the potential impacts of some or all the sites listed above on aquatic receptors using some combination of the following methods:

   - Groundwater sampling;
   - Rapid bioassessment protocol (RBP);
   - Sediment bioassays; and/or
   - Analyses of dissolved/total metals in the surface water column.

7.0 USE OF THIS REPORT

Work for this project was performed, and this report prepared, in accordance with generally accepted professional practices for the nature and conditions of the work completed, in the same or similar localities, at the time the work was performed. It is intended for the exclusive use of the Washington State

Department of Ecology for specific application to the referenced property. This report is not meant to represent a legal opinion. No other warranty, express or implied, is made.

The information in this report is intended to be used to determine whether the site has released or has a potential to release hazardous substances to the environment at concentrations above Model Toxics Control Act (MTCA) human health or ecological screening levels.

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TABLES

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Table 13 – Daily Activities Summary

Day	Activity	Samples Collected
Trip 1	Samplers: Andrew Kaparos, Celina Abercrombie, Michelle Havey	
Day 1 (7/8/11)	Mobilization Travel to Monte Cristo Townsite via helicopter Set up camp	---
Day 2 (7/9/11)	Hiked to Weden Creek Watershed Followed abandoned road on east side of Weden Creek to Mackinaw claims Located Mackinaw Tunnel No. 1 (designated Weden 1)	Weden 1 S1 (0-6 inches) Weden 1 S1 (6-12 inches)
Day 3 (7/10/11)	Hiked to Glacier Creek Watershed Arrived at GPS locations for Pusher Lode and Portland No. 1 Did not locate any mine features	None
Day 4 (7/11/11)	Hiked to Seventysix Gulch Watershed Unable to reach Fontenoy Mine Arrived at GPS locations for Sauk Lode No. 1 and No. 2 Did not locate any mine features	None
Day 5 (7/12/11)	Hiked to Weden Creek Watershed Followed old road on east side of Weden Creek to Mackinaw claims Took additional sample at Weden 1 Found Mackinaw No. 2 further down the abandoned road (designated Weden 2)	Weden 1 S2 (0-6 inches) Weden 1 S2 (6-12 inches) Weden 2 S1 (0-6 inches)
Day 6 (7/13/11)	Picked up from the Townsite Demobilization	---
Day 7 (7/20/11)	XRF readings of air-dried samples Packaged samples for shipment to the lab	---

Table 13 – Daily Activities Summary

Day	Activity	Samples Collected
Trip 2	Samplers: Andrew Kaparos, Michelle Havey, Phil Cordell, Ward McDonald	
Day 1 (8/22/11)	Mobilization Travel to Monte Cristo Townsite via helicopter Set up camp Ran through sample protocol near historic Main Street on the Glacier Basin Trail	---
Day 2 (8/23/11)	Hiked to Weden Creek Watershed for background sample collection; met Jason Shira Followed abandoned road on east side of Weden Creek toward Mackinaw claims One team (MAH/PRC) headed SW from Mackinaw 2 toward Weden Creek Other team (ASK/WDD) headed back toward SFSR along road	W-8;[12] W-16
Day 3 (8/24/11)	Hiked back to Weden Creek Watershed to collect more background samples Both teams collected samples upslope of the abandoned road	W-11; W-12; W-10; W-9; W-13; W-14; W-15
Day 4 (8/25/11)	Hiked up drainage channel directly across the South Fork Sauk River (SFSR) from the Townsite to collect background samples in the Glacier Creek Watershed Both teams traversed across slope heading east into the watershed	G-1; G-2; G-3; G-4; G-5
Day 5 (8/26/11)	Hiked up Glacier Basin Trail past the falls Found the Potomac Silver Mine and collected four discrete and one multi-increment sample Continued further along trail and found the IXL Mine – collected four discrete samples Picked up from the Townsite Demobilization	Potomac 1 (multi-increment sample); Potomac 2 (0-6); Potomac 2 (6-12); Potomac 3 (0-6); Potomac 3 (6-12); IXL 1 (0-6); IXL 1 (6-12); IXL 2 (0-6); IXL 2 (6-12)

[12] Background samples were named with an abbreviation of the watershed name (i.e., “W” for Weden Creek watershed or “76” for Seventysix Gulch Watershed) followed by a unique number.

Table 13 – Daily Activities Summary

Day	Activity	Samples Collected
Trip 3	Samplers: Andrew Kaparos, Celina Abercrombie, Michelle Havey, Ward McDonald	
Day 1 (9/12/11)	Mobilization Travel to Monte Cristo via helicopter – one team (ASK/MAH) dropped off at Barlow Pass to collect more background samples in the Weden Creek Watershed; other team (CAA/WDD) dropped off at Townsite to set up camp Sampling team collected samples upslope of the Weden Creek trail on the west side of Weden Creek	W-19; W-18; W-17; W-21; W-22; W-23; W-1; W-6; W-3; W-7; W-2
Day 2 (9/13/11)	Hiked to Seventysix Gulch Watershed Followed unnamed trail up west side of Seventysix Gulch until streambed went dry, then hiked in dry channel One team (ASK/MAH) collected background in upper watershed Other team (CAA/WDD) found 76 Mine on east side of watershed	76-1; 76-3; 76 S-1 (0-6); 76 S-1 (6-12); 76 S-2 (0-6); 76 S-2 (6-12)
Day 3 (9/14/11)	Hiked to Glacier Creek Watershed to collect more background samples One team (ASK/MAH) collected background on north side of Glacier Creek and downstream of the falls Other team (CAA/WDD) collected background on east side of Glacier Creek in the upper watershed	G-11; G-7; G-8; G-9; G-6; G-10; G-12

Table 13 – Daily Activities Summary

Day	Activity	Samples Collected
Day 4 (9/15/11)	Hiked to Seventysix Gulch Watershed Followed unnamed trail up west side of Seventysix Gulch until streambed went dry, then hiked in dry channel to approximately the prominent private cabin adjacent to the channel Both teams ascended adjacent drainage channels on west side of Seventysix Gulch One team (ASK/MAH) found 74 Mine Other team (CAA/WDD) found Emma Moore No. 1 and collected two background samples on the way back to camp	74 S-1 (0-6); 74 S-2 (0-6); Emma 2 S-1 (0-6); Emma 2 S-2 (0-6); Emma 2 S-2 (6-12); 76-2; 76-11
Day 5 (9/16/11)	Hiked up the Poodle Dog Pass Trail to Seventysix Gulch Watershed Both teams collected background samples upslope of the trail Picked up from the Townsite Demobilization	76-10; 76-18; 76-13; 76-17; 76-12; 76-16; 76-9; 76-6; 76-15; 76-5; 76-14; 76-4

Table 13 – Daily Activities Summary

Day	Activity	Samples Collected
Trip 4	Samplers: Andrew Kaparos, Michelle Havey, Phil Cordell, Ward McDonald	
Day 1 (9/26/11)	Mobilization Travel to Monte Cristo Townsite via helicopter Set up camp Inclement weather prevented sampling in the afternoon	---
Day 2 (9/27/11)	Two teams split up: one went to the Glacier Creek Watershed and the other to Seventysix Gulch Watershed ASK/MAH found Pusher Lode northwest of Mystery Mine off the Glacier Basin Trail; collected six samples PRC/WDD attempted to hike to Comet Mine, but the terrain was too dangerous to ascend	Pusher S-1 (0-6); Pusher S-1 (6-12); Pusher S-2 (0-6); Pusher S-2 (6-12); Pusher S-3 (0-6); Pusher S-3 (6-12)
Day 3 (9/28/11)	Both teams hiked to Seventysix Gulch Watershed One team (ASK/MAH) hiked the Poodle Dog Pass trail and headed north-northwest to O&B Mine; collected five samples Other team (PRC/WDD) hiked to Ibex No. 1; collected two samples	Ibex S-1 (0-6); Ibex S-2 (0-6); O&B Upper S-1 (0-6); O&B Upper S-2 (0-6); O&B Upper S-3 (0-6); O&B Lower S-1 (0-6); O&B Lower S-2 (0-6)
Day 4 (9/29/11)	Two teams split up: one went to the Glacier Creek Watershed and the other to Seventysix Gulch Watershed ASK/MAH found Portland No. 2 northeast and directly across the valley from Potomac Silver Mine off the Glacier Basin Trail; collected three samples PRC/WDD hiked to Congress Mine in Seventysix Gulch; collected two samples	Congress S-1 (0-6); Congress S-1 (6-12); Portland No. 2 S-1 (0-6); Portland No. 2 S-1 (6-12); Portland No. 2 S-2 (0-6)

Table 13 – Daily Activities Summary

Day	Activity	Samples Collected
Day 5 (9/30/11)	Followed the SFSR downstream from the Townsite along the south bank to the first drainage channel; then headed up the slope and traversed across toward the second drainage channel Both teams made a second attempt to find and sample the upper and lower Sauk Lodes slightly downstream from the Townsite on the south side of SFSR Found one opening tentatively identified as the Sauk Lode Lower tunnel, but no sufficient material to sample Picked up from the Townsite Demobilization	---

Table 14 – Project Team Roles and Responsibilities

Project Role	Personnel Assignment	Roles/Responsibilities
Ecology Project Manager	Jason Shira Ecology (509) 454-7834	Client Project Manager
Program Manager	Mike Bailey Hart Crowser (206) 324-9530	Ensures that all work is carried out in accordance with contractual obligations and the Delivery Order statement of work. Assists the Project Manager as needed with technical decisions and in resolving issues. Final reviewer.
Project/Task Manager	Michelle Havey Hart Crowser (206) 324-9530	Overall responsibility for execution of the Work Plan. Coordinate with Client, Field Manager, and Program Manager as necessary to resolve issues.
Corporate Health and Safety Officer (HSO)	Anne Conrad Hart Crowser (206) 324-9530	Overall responsibility for review and answering questions regarding health and safety.
Field Manager and Site Safety Coordinator (SSC)	Michelle Havey Hart Crowser (206) 324-9530	Ensures that explorations are conducted and samples are collected in accordance with project specifications. Coordinates field activities with Project and Program Managers.
Mine Information Research	Andrew Kaparos Hart Crowser (206) 324-9530	Determines location of mine, access route, and ownership.
Project Chemist	Roger McGinnis Hart Crowser (206) 324-9530	Performs laboratory coordination and data quality review to assure analytical methods and data are consistent with project needs and data quality objectives.
Laboratory Services	Kristine Allen TestAmerica (253) 922-2310	Analyzes soil samples.

Table 15 – Information on Areas, Habitats, Mines, Prospects, and Processing Facilities

	Area (acres)	Ecological Exposure Area	Volume cubic yards	Number of samples	Latitude decimal degrees	Longitude decimal degrees
South Fork Sauk River Watershed	12,578					
Glacier Creek Watershed	1,867					
UPLAND HABITATS						
Disturbed	117					
Forested	350					
Talus Slopes	1,400					
FEATURES						
Background				20		
* Comet Terminal		Area 1	900 WR	10	47.9839	-121.3876
* Concentrator		Area 1	8,200 S + T	24	47.98444	-121.38904
* Golden Cord Mine		Area 3	3,500 WR	2	47.98057	-121.37405
* Haulage Way		Area 1	200 S	6	Linear	Linear
IXL Dump of Tunnel		Area 3	20 WR	4	47.9803411	-121.36467
* Justice Mine		Area 2	14,000 WR	6	47.98127	-121.37608
Mill		Area 1	ND	2	47.9863611	-121.3915
* Mystery Mine		Area 3	32,000 WR	9	47.98069	-121.36989
* New Discovery Mine		Area 3	2,400 WR	3	47.98114	-121.36225
* Ore Collector		Area 1	2,500 WR	15	47.98359	-121.38396
Portland No. 2		Area 3	100 WR	4	47.98339	-121.36171
Potomac Silver		Area 3	95 WR	5	47.9827058	-121.36585
* Pride of the Mountains Mine		Area 3	5,000 WR	3	47.98056	-121.35889
* Pride of the Woods Mine		Area 3	2,000 WR	2	47.9813889	-121.365
Pusher Lode		Area 2	3,500 WR	6	47.98491	-121.3711
* Rainy Mine		Area 2	3,300 WR	2	47.9841	-121.38332
Seventysix Gulch Watershed	1,331					
UPLAND HABITATS						
Disturbed	81					
Forested	500					
Talus Slopes	750					
FEATURES						
Background				20		
74 Mine		Area 4	27 WR	2	47.9705265	-121.38612
* Assay Shack		Area 1	200 S	4	47.98335	-121.39072
* Boston-American Mine		Area 2	6,000 WR	2	47.98472	-121.39556
Congress Mine		Area 4	ND	4	47.9687136	-121.38662
Emma Moore No. 1		Area 4	90 WR	3	47.9708	-121.387
Ibex No. 1		Area 4	1,250 WR	2	47.968855	-121.37722
Independence of 1776 Mine		Area 4	260 WR	3	47.9730032	-121.37895
* Lincoln Mine		Area 2	ND	3	47.97953	-121.38722
O&B Mine		Area 2	3,000 + 1,500 WR	5	47.9803188	-121.40442
Sauk Lode - Lower		Area 2	ND	NS	47.986292	-121.39831
* Sheridan Mine		Area 2	650 WR	2	47.97597	-121.38567
* Sidney Mine		Area 2	425 WR	2	47.97742	-121.38587

Table 15 - Information on Areas, Habitats, Mines, Prospects, and Processing Facilities

	Area (acres)	Ecological Exposure Area	Volume cubic yards	Number of samples	Latitude decimal degrees	Longitude decimal degrees
Weden Creek Watershed	2,617					
UPLAND HABITATS						
Disturbed	17					
Forested	2,597					
Talus Slopes	3,218					
FEATURES						
Background				20		
Mackinaw Tunnel No. 1		Area 5	46 WR	4	47.98994	-121.4361
Mackinaw Tunnel No. 2		Area 5	35 WR	1	47.98701	-121.4343
* Weden Siding		Area 5	none	3	48.0036	-121.4385
Ecological Exposure Areas						
Area 1	58			52		
Area 2	747			54		
Area 3	1,530			40		
Area 4	969			29		
Area 5	2,680			28		

* Data acquired from the CES Interim Report - 2010 Data Gap Investigation, January, 2011
Waste Rock (WR), Soil (S), Tailings (T), Not Determined (ND), Not Sampled (NS)

Table 16a – Monte Cristo Mining Area Sample Inventory - Mine Feature Samples

Sample Name	Sample Location	Elevation (feet)	Sample Description
Glacier Creek Watershed			
Potomac 1	Thirty-point composite sample located along the Potomac Silver waste rock pile approximately 15 feet east of the mine opening	~4,400	Loose, moist, light brown, sandy gravel (fine to coarse). USCS descriptor: GW
Potomac 2 (0-6)	Located near the seep of Potomac Silver approximately 4 feet downslope of the mine opening (0-6 inch depth)	~4,420	Loose, wet, dark gray-brown, silty sand (fine to medium). USCS descriptor: SM
Potomac 2 (6-12)	Located near the seep of Potomac Silver approximately 4 feet downslope of the mine opening (6-12 inch depth)	~4,420	Loose, wet, dark gray-brown, silty sand (fine to medium). USCS descriptor: SM
Potomac 3 (0-6)	At the bottom of Potomac Silver wasterock pile approximately 50 east of the mine opening (0-6 inch depth)	~4,400	Loose, wet, red-brown, silty sand (fine). USCS descriptor: SM
Potomac 3 (6-12)	At the bottom of Potomac Silver wasterock pile approximately 50 east of the mine opening (6-12) inch depth)	~4,400	Loose, wet, red-brown, silty sand (fine). USCS descriptor: SM
IXL 1 (0-6)	Located upgradient of the IXL waste rock pile approximately 12 feet northeast of the mine opening (0-6 inch depth)	4,560	Loose, wet, dark brown to red brown, sandy silt with abundant organics. USCS descriptor: ML
IXL 1 (6-12)	Located upgradient of the IXL waste rock pile approximately 12 feet northeast of the mine opening (6-12 inch depth)	4,560	Loose, wet, dark brown to red brown, sandy silt with abundant organics. USCS descriptor: ML
IXL 2 (0-6)	At the toe of the IXL waste rock pile upgradient from the boulder field and approximately 60 feet downgradient of the mine opening (0-6 inch depth)	4,520	Loose, moist, reddish brown, silty sand (fine to coarse). USCS descriptor: SM
IXL 2 (6-12)	At the toe of the IXL waste rock pile upgradient from the boulder field and approximately 60 feet downgradient of the mine opening (6-12 inch depth)	4,520	Loose, moist, reddish brown, silty sand (fine to coarse). USCS descriptor: SM

Table 16a – Monte Cristo Mining Area Sample Inventory - Mine Feature Samples

Sample Name	Sample Location	Elevation (feet)	Sample Description
Pusher S-1 0-6	Located along the northeast edge of the Pusher Lode waste rock pile approximately 100 feet north of the mine opening. (0-6 inch depth)	3,600	Loose to medium dense, damp to moist, brown, gravelly sandy silt with wood debris. USCS descriptor: ML
Pusher S-1 6-12	Located along the northeast edge of the Pusher Lode waste rock pile approximately 100 feet north of the mine opening. (6-12 inch depth)	3,600	Loose to medium dense, damp to moist, brown, gravelly sandy silt with wood debris. USCS descriptor: ML
Pusher S-2 0-6	Located along the western edge of the Pusher Lode waste rock pile approximately 60 feet to the northwest of the mine opening (0-6 inch depth)	3,600	Loose, moist, reddish brown, very gravelly, sandy silt. USCS descriptor: ML
Pusher S-2 6-12	Located along the western edge of the Pusher Lode waste rock pile approximately 60 feet to the northwest of the mine opening (6-12 inch depth)	3,600	Loose, moist, reddish brown, very gravelly, sandy silt. USCS descriptor: ML
Pusher S-3 0-6	Near the toe of the Pusher Lode waste rock pile approximately 260 feet north of the mine opening (0-6 inch depth)	3,600	Loose to medium dense, damp, reddish brown, gravelly sandy silt. USCS descriptor: ML
Pusher S-3 6-12	Near the toe of the Pusher Lode wasterock pile approximately 260 feet north of the mine opening (6-12 inch depth)	3,600	Loose to medium dense, moist to wet, gray brown, slightly sandy silt. USCS descriptor: ML
Portland 2 S1 0-6	Located along the northeast edge of the Portland 2 waste rock pile approximately 50 feet to the south of the mine opening (0-6 inch depth)	~4,620	Loose to medium dense, damp to moist, brown to dark brown, very gravelly sandy silt. USCS descriptor: ML
Portland 2 S1 6-12	Located along the northeast edge of the Portland 2 waste rock pile approximately 50 feet to the south of the mine opening (6-12 inch depth)	~4,620	Loose to medium dense, damp to moist, brown to dark brown, very gravelly sandy silt. USCS descriptor: ML

Table 16a – Monte Cristo Mining Area Sample Inventory - Mine Feature Samples

Sample Name	Sample Location	Elevation (feet)	Sample Description
Portland 2 S2 0-6	Near the southern edge of the Portland 2 wasterock pile approximately 170 feet south of the mine opening (0-6 inch depth)	~4,570	Loose to medium dense, wet, dark brown, very gravelly sandy silt. USCS descriptor: ML
Portland 2 S2 6-12	Near the southern edge of the Portland 2 waste rock pile approximately 170 feet south of the mine opening (6-12 inch depth)	~4,570	Loose to medium dense, wet, dark brown, very gravelly sandy silt. USCS descriptor: ML
Seventysix Gulch Watershed			
76 S-1 0-6	Top of 76 Mine waste rock pile approximately 10 feet west of mine opening (0-6 inch depth)	3,970	Loose, wet, dark brown, silty sandy gravel (fine to coarse). USCS descriptor: GM
76 S-2 0-6	Located below the toe of the 76 Mine waste rock pile approximately 30 feet west of the mine opening (0-6 inch depth)	~3,940	Loose,damp, light brown, silty, very gravelly sand (fine to coarse). USCS descriptor: SM
76 S2 6-12	Located below the toe of the 76 Mine waste rock pile approximately 30 feet west of the mine opening (6-12 inch depth)	~3,940	Loose,damp, light brown, silty, very gravelly sand (fine to coarse). USCS descriptor: SM
Emma 2 S-1 0-6	Located along the north side of the drainage approximately 15 feet downgradient from Emma Moore 2 mine opening within the limited sapling and brush cover (0-6 inch depth)	~4,070	Loose, moist, light brown, silty sand (fine). USCS descriptor: SM
Emma 2 S-2 0-6	At the bottom of the Emma Moore 2 waste rock pile approximately 80 feet below the mine opening and upgradient from the accumulation of boulder sized rocks. (0-6 inch depth)	~4000	Loose, damp, light brown silty sand (fine). USCS descriptor: SM
Emma 2 S-2 6-12	At the bottom of the Emma Moore 2 waste rock pile approximately 80 feet below the mine opening and upgradient from the accumulation of boulder-sized rocks. (6-12 inch depth)	~4000	Loose, damp, light brown silty sand (fine). USCS descriptor: SM

Table 16a – Monte Cristo Mining Area Sample Inventory - Mine Feature Samples

Sample Name	Sample Location	Elevation (feet)	Sample Description
74 S-1 0-6	In the middle of the 74 Mine adit drainage near the cliff face, and approximately 40 feet east of the mine opening (0-6 inch depth)	4,140	Medium dense, wet, brown, gravelly, sandy (fine), silt. USCS descriptor: ML
74 S-2 0-6	At the toe of the waste rock pile, adjacent to the bedrock drainage channel (0-6 inch depth)	4,140	Medium dense, wet, brown, gravelly, sandy (fine), silt. USCS descriptor: ML
IBEX S1 0-6	Located approximately 25 feet downgradient to the west of the IBEX mine opening above the waste rock pile. (0-6 inch depth)	4,160	Loose, wet, dark brown, slightly silty, slightly sandy, gravel (fine to coarse) with occasional organics. USCS descriptor: GM
IBEX S2 0-6	At the bottom of the IBEX waste rock pile approximately 80 feet downgradient and to the west of the mine opening (0-6 inch depth)	4,080	Loose, moist, brown, silty sand (fine). USCS descriptor: SM
O+B Upper S1 0-6	Located at the northwest edge of the Upper O&B waste rock pile (0-6 inch depth)	4,530	Medium dense, moist, reddish brown, very gravelly sandy silt. USCS descriptor: ML
O+B Upper S2 0-6	Located along the north edge of the Upper O&B waste rock pile (0-6 inch depth)	~4,500	Loos to medium dense, wet dark reddish brown, very gravelly sandy silt. USCS descriptor: ML
O+B Upper S3 0-6	Located along the O+B Upper waste rock pile southeast of the mine opening (0-6 inch depth)	~4,500	Medium dense, damp to wet, reddish brown, very gravelly sandy silt. USCS descriptor: ML
O+B Lower S1 0-6	Near the top of the O&B Lower waste rock pile south of the mine opening (0-6 inch depth)	4,360	Medium dense, moist to wet, reddish brown, very gravelly, sandy silt. USCS descriptor: ML
O+B Lower S2 0-6	Near the toe of the O&B Lower waste rock pile southeast of the mine opening (0-6 inch depth)	4,360	Medium dense, moist to wet, reddish brown, very gravelly, sandy silt. USCS descriptor: ML

Table 16a – Monte Cristo Mining Area Sample Inventory - Mine Feature Samples

Sample Name	Sample Location	Elevation (feet)	Sample Description
Congress S1 0-6	Near the top of the waste rock pile for Congress Mine approximately 10 feet downslope to the east of the mine opening (0-6 inch depth)	4,310	Loose,moist, dark brown, silty, sandy gravel (fine to coarse). USCS descriptor: GM
Congress S1 6-12	Near the top of the waste rock pile for Congress Mine approximately 10 feet downslope to the east of the mine opening (6-12 inch depth)	4,310	Loose,moist, dark brown, silty, sandy gravel (fine to coarse). USCS descriptor: GM
Congress S2 0-6	Near the bottom of the waste rock pile for Congress Mine approximately 200 feet downslope to the east of the mine opening (0-6 inch depth)	4,190	Loose, moist, dark brown, silty, sandy gravel (fine to coarse) with occassional roots. USCS descriptor: GM
Congress S2 6-12	Near the bottom of the waste rock pile for Congress Mine approximately 200 feet downslope to the east of the mine opening (0-6 inch depth)	4,190	Loose, moist, dark brown, silty, sandy gravel (fine to coarse) with occassional roots. USCS descriptor: GM
Weden Creek Watershed			
Weden 1 S1 (0-6)	Top of the Weden 1 waste rock pile near the southeast end of the opening (0-6 inch depth)	2,740	Loose, moist, brown-dark brown, sandy, gravelly (fine to coase) silt. USCS descriptor: ML
Weden 1 S1 (6-12)	Top of the Weden 1 waste rock pile near the southeast end of the opening (6-12 inch depth)	2,740	Loose, moist-wet, brown, sandy, gravelly (fine to coarse) silt. USCS descriptor: ML
Weden 1 S2 (0-6)	At the bottom of the Weden 1 waste rock pile approximately 25 feet downslope and southwest of the opening (0-6 inch depth)	2,730	Loose, moist, brown, sandy silt, very gravelly (fine to coarse). USCS descriptor: ML
Weden 1 S2 (6-12)	At the bottom of the Weden 1 waste rock pile approximately 25 feet downslope and southwest of the opening (6-12 inch depth)	2,730	Loose, moist, brown, sandy, very gravelly (fine to coarse) silt. USCS descriptor: ML

Table 16a – Monte Cristo Mining Area Sample Inventory - Mine Feature Samples

Sample Name	Sample Location	Elevation (feet)	Sample Description
Weden 2 S1 (0-6)	From the middle of the Weden 2 waste rock pile approximately 17 feet downslope of the opening (0-6 inch depth)	3,000	Loose, wet, black, silty, sandy gravel (fine and coarse). USCS descriptor: GW-GM

Table 16b – Monte Cristo Mining Area Sample Inventory - Background Samples

Sample Name	Sample Location Description (0-6 inch depth)	Elevation (feet)	Slope (degrees)	Duff layer (inches)	Sample Description
Glacier Creek Watershed					
G-1	5% canopy cover dominant maples, yellow cedar, and firs	3,530	25	1	Loose, dry to damp, light reddish-brown, silty, gravelly fine sand. USCS descriptor: SM
G-2	65% canopy cover mature Douglas fir dominant	3,560	42	3	Loose, damp, brown to reddish brown, slightly silty, gravelly sand with abundant organics and tree roots. USCS descriptor: SP
G-3	90% canopy cover Douglas fir	3,560	40	5	Loose, damp, grey, slightly silty fine sand. USCS descriptor: SP
G-4	90% canopy cover subalpine fir, Douglas fir dominant	3,530	30	6	Loose, damp to moist, brown to reddish brown, silty, gravelly sand with abundant roots. USCS descriptor: SM
G-5	95% canopy cover	3,050	13	3	Loose, damp, brown, silty fine sand. USCS descriptor: SM
G-6	65% canopy cover dom. subalpine fir and hemlok	3,760	34	5	Loose, dry, brown, slightly gravelly, fine sandy silt. USCS descriptor: ML
G-7	75% canopy cover mature mountain hemlock	3,660	34	9	Loose, dry to damp, light greyish brown to light reddish brown, slightly gravelly fine sandy silt. USCS descriptor: ML
G-8	10% canopy cover subalpine fir, hemlock and cedar	3,680	32	1	Loose, dry, brown, slightly gravelly, fine sandy silt. USCS descriptor: ML
G-9	0% canopy cover	4,230	40		Loose, damp, light brown, silty sand with trace gravel. USCS descriptor: SM
G-10	0% canopy cover	4,300	45		Loose, damp, light brown, gravelly, silty sand. USCS descriptor: SM
G-11	0% canopy cover	4,250	45		Loose, damp, brown, slightly gravelly silty sand. USCS descriptor: SM
G-12	0% canopy cover	4,220	30		Loose, damp, light brown, gravelly, silty sand. USCS descriptor: SM
Seventysix Gulch Watershed					
76-1	5% canopy cover mountain hemlock (25')	3,660	5	2	Dense, damp, brown, slightly gravelly, slightly sandy silt. USCS descriptor: ML
76-2	0% canopy cover	3,620	25		Loose, damp, light brown, gravelly, silty sand. USCS descriptor: SM
76-3	40% canopy cover 40-50' hemlock and subalpine fir	3,900	23	3	Loose to medium dense, dry, brown, gravelly, fine sandy SILT. USCS descriptor: ML

Table 16b – Monte Cristo Mining Area Sample Inventory - Background Samples

Sample Name	Sample Location Description (0-6 inch depth)	Elevation (feet)	Slope (degrees)	Duff layer (inches)	Sample Description
76-4	45% canopy cover subalpine fir, hemlock	3,670	27	7	Medium dense, damp, reddish brown to brown, slightly gravelly, fine sandy silt. USCS descriptor: ML
76-5	85% canopy cover hemlock	3,540	30	10	medium dense, damp to moist, light greyish brown fine sandy silt with wood debris. USCS descriptor: ML
76-6	60% canopy cover subalpine fir, hemlock	3,520	22		Medium dense, moist, brown, silt. USCS descriptor: ML
76-7	90% brush cover huckleberry; 70% canopy cover grand fir	3,300	25	12	Loose, moist, gray silty sand to sandy silt. USCS descriptor: ML
76-8	80% canopy coverage grand and subalpine fir; 30% shrub coverage huckleberry	3,450	18	6	Loose, moist to wet, dark brown, very sandy silt with abundant organics. USCS descriptor: ML
76-9	10% canopy cover grand fir	3,190	35		Loose, moist, dark brown, slightly gravelly, silty sand. USCS descriptor: SM
76-10	30% canopy cover western hemlock	3,180	35		Loose, damp, greyish brown, silty sand. USCS descriptor: SM
76-11	0% canopy cover	3,350	3		Loose, damp, light brown, silty sand. USCS descriptor: SM
76-12	60% canopy cover hemlock, subalpine fir and cedar	3,710	20	4	Medium dense,moist, reddish brown to brown, silt. USCS descriptor: ML
76-13	15% canopy cover mature hemlock	3,730	23	4	Dense, moist to wet, dark brown, slightly sandy silt. USCS descriptor: ML
76-14	10% canopy cover western hemlock	3,420	35		Loose, wet, dark brown, very silty sand to sandy silt. USCS descriptor: SP to SM
76-15	50% canopy cover western hemlock w/grand fir	3,440	30		Loose, wet, dark brown, very silty sand w/scattered gravels. USCS descriptor: SM
76-16	40% canopy cover hemlock	3,490	24	4	Dense, moist, brown, SILT. USCS descriptor: ML
76-17	35% canopy cover grand fir	3,020	20		Loose, damp, light brown, silty sand. USCS descriptor: SM
76-18	20% canopy cover grand fir	2,960	55		Loose, damp, light grayish brown, silty sand. USCS descriptor: SM
Weden Creek Watershed					
W-1	90% canopy cover dominant subalpine fir and hemlock	2,420	12	1	Loose, damp, brown, slightly gravelly, slightly sandy silt. USCS descriptor: ML

Table 16b – Monte Cristo Mining Area Sample Inventory - Background Samples

Sample Name	Sample Location Description (0-6 inch depth)	Elevation (feet)	Slope (degrees)	Duff layer (inches)	Sample Description
W-2	70% canopy cover dominant subalpine fir, subdominant hemlock	2,420	10		Medium dense, damp, reddish brown, slightly gravelly, slightly sandy silt. USCS descriptor: ML
W-3	85% canopy cover solely mature hemlock	2,450	13	3	Loose to medium dense, moist, brown, slightly gravelly, slightly sandy silt. USCS descriptor: ML
W-6	80% canopy cover large open patch just north, 4 large, mature hemlock	2,430	10	1	Loose to medium dense, damp to moist, brown, slightly gravelly, sandy silt with occassional wood fragments. USCS descriptor: ML
W-7	65% canopy cover dominant subalpine fir, subdominant hemlock	2,430	0	2	Loose to medium dense, damp, light greyish brown, slightly gravelly, slightly silty sand. USCS descriptor: SP
W-8	85% canopy cover mature large conifers, tree dominated	2,440	0	8	Loose, moist, brown, slightly silty, slightly sandy gravel. USCS descriptor: GP
W-9	80% canopy cover grand fir and cedar	2,920	43	5	Loose, damp to moist, light reddish brown, slightly gravelly, silty fine sand with abundant organics. USCS descriptor: SM
W-10	90% canopy cover mature conifers	3,060	42	12	Loose,damp, brown to light brown, slightly gravelly, very silty sand with abundant tree roots. USCS descriptor: SM
W-11	70% canopy cover mostly mature grand fir, cedar	2,980	29	8	Loose,moist to damp, gray, sand with trace silt. USCS descriptor: SP
W-12	80% canopy cover grand fir	2,850	23	8	Loose, damp, light reddish brown, slightly gravelly, silty fine sand with abundant organics. USCS descriptor: SM
W-13	60% canopy cover mature cedar, smallish subalpine fir	3,130	29	1.5	Loose, damp, reddish brown, silty, gravelly sand with scattered roots. USCS descriptor: SM
W-14	85% canopy cover grand fir	2,980	30	7	Loose,damp, grey, fine sand to light reddish brown, silty fine sand. USCS descriptor: SP to SM
W-15	60% canopy cover mature conifers, grand fir, subalpine fir	3,050	33	5	Loose, damp, light reddish brown, silty gravelly sand with scatterd organics. USCS descriptor: SM
W-16	70% canopy cover fir	3,000	37		Loose, damp, light reddish brown, slightly gravelly, silty fine SAND with abundant organics. USCS descriptor: SM

Table 16b – Monte Cristo Mining Area Sample Inventory - Background Samples

Sample Name	Sample Location Description (0-6 inch depth)	Elevation (feet)	Slope (degrees)	Duff layer (inches)	Sample Description
W-17	70% canopy cover dominant hemlock, subdominant subalpine fir, cedar and unknown fir	2,560	9	1	Loose, damp, reddish brown, sandy silt. USCS descriptor: ML
W-18	65% canopy cover dominant subalpine fir, subdominant hemlock	2,590	25	5	Loose, damp, brown to light brown, slightly gravelly, slightly sandy silt with occassional wood fragments. USCS descriptor: ML
W-19	85% canopy cover dominant mature subalpine fir and hemlock	2,600	20	1	Medium dense, brown, slightly sandy silt. USCS descriptor: ML
W-21	85% canopy cover dominant hemlock, subdominant subalpine fir	2,610	18	12	Loose, damp, brown, fine sandy silt. USCS descriptor: ML
W-22	80% canopy cover dominant Pacific silver fir, subdominant mountain hemlock	2,530	9	5	Loose to medium dense, damp, brown, sandy, gravelly silt. USCS descriptor: ML
W-23	40% canopy cover dominant subalpine fir	2,420	0	10	Dense, moist, light brown to brown, sandy silt with scattered wood particles. USCS descriptor: ML

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Table 17 – Comparison of Individual and Pooled Watershed Background Concentrations

Constituent	Lowest ARAR (a)	All Watersheds Pooled			Glacier Creek	Seventysix Creek	Glacier & Seventysix			Weden Creek		
		Alluvium/Glacial Drift and Igneous Volcanics	Alluvium/ Glacial Drift	Igneous Volcanics	Alluvium/Glacial Drift and Igneous Volcanics	Alluvium/Glacial Drift and Igneous Volcanics	Alluvium/Glacial Drift and Igneous Volcanics	Alluvium/ Glacial Drift	Igneous Volcanics	Alluvium/Glacial Drift and Igneous Volcanics	Alluvium/ Glacial Drift	Igneous Volcanics
		ProUCL Calculated Site-Specific Backgound Concentrations (mg/kg)										
Aluminum	50	40000	30000	40000	30000	30000	30000	30000	40000	50000	40000	70000
Antimony	5	8	20	7	10	20	20	30	8	0.6	0.7	0.4
Arsenic	0.62	300	200	300	400	500	400	500	400	50	60	20
Barium	102	82.8	89	78.3	85	49.5	74.9	81.6	70.9	101	93.5	101
Beryllium	10	0.5	0.5	0.6	0.5	0.4	0.4	0.3	0.5	0.9	0.8	0.7
Cadmium	0.69	0.77	0.79	0.59	0.91	0.83	0.89	1.1	0.77	0.38	0.43	0.29
Calcium[c]	--	0	0	0	0	0	0	0	0	0	0	0
Chromium	42	71	70	40	79	34	60	85	21	86	84	89
Cobalt	13	20	17	25	27	16	21	17	27	19	18	23
Copper	50	100	60	200	200	50	100	60	200	90	60	200
Iron	91.2	36100[a]	34000[a]	49900	47300	40600	35300[a]	34900	55000	47500	50400	53800
Lead	50	70	80	70	70	100	100	100	80	20	30	10
Magnesium[c]	--	10000	0	0	10000	10000	10000	0	10000	0	0	0
Manganese	220	1200	1300	1200	1900	1200	1700	1900	1700	570	640	490
Mercury	0.1	0.4	0.6	0.2	0.4	0.6	0.5	0.9	0.2	0.2	0.3	0.2
Nickel	30	53.6	55.3	41	41.2	22.3	33.3	36.2	15.2	106	87.4	147
Potassium[c]	--	0	0	0	0	0	0	0	0	1000	1000	1000
Selenium	0.3	2	1	2	2	2	2	1	2	1	1	1
Silver	2	1.2	1.3	1.1	0.99	1.7	1.4	1.7	1.1	0.47	0.59	0.29
Sodium[c]	--	0	0	0	1000	0	0	0	0	0	0	0
Thallium	1	0.3[b]	0.3[b]	0.3[b]	0.3[b]	0.3[b]	0.3[b]	0.3[b]	0.3[b]	0.3[b]	0.3[b]	0.3[b]
Vanadium	2	90	90	100	80	80	90	90	100	90	90	100
Zinc	86	150	140	140	190	160	180	140	160	98	100	96

All values represent the true upper 90th percentile calculated using EPA's ProUCL version 4.00.005 statistical software unless otherwise noted.

[a] Follows a normal distribution, so value represents the true upper 80th percentile (MTCA 173-340-709[3(d)]).

[b] Because more than 50% of the measurements in the dataset are below the practical quantitation limit, value represents the maximum concentration (MTCA 173-340-740(7[f(iv)]).

[c] Constituent is an essential element, considered non-toxic under a wide-range of environmental concentrations, and is excluded from

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Table 18 – Analytical Results for Background Soil Samples

Sample ID	Sampling Date	Concentrations (mg/kg)																							
		Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium [a]	Chromium	Cobalt	Copper	Iron	Lead	Magnesium [a]	Manganese	Mercury	Nickel	Potassium [a]	Selenium	Silver	Sodium [a]	Thallium	Vanadium	Zinc	pH
	Lowest EISC	50	5	10	102	10	4.00	--	42	20	50	--	50	--	1,100	0.1	30	--	0.3	2	--	1	2	86	
	Maximum EISC	50	5	132	500	10	20.00	--	67	20	217	--	500	--	1,500	6	980	--	70	2	--	1.00	2	360	
Glacier Creek Watershed																									
BKG-03-0.5	9/7/2005	***9440***	2.39 J	*44.7*	84.1	0.33	0.45	1040	*42.8*	9.35	16	27300	11.6	4920	783	*0.72* J	*33*	1540	*0.6* U	0.5 U	137	***1.5*** U	***35.3***	63.6	4.39
BKG-04-0.5	9/7/2005	***14000***	***6.25*** J	*69.9*	65.8	0.21	0.61	4710	*47.4*	10.7	24.2	30400	11	8220	*1500*	*0.773* J	22.9	1290	*0.6* U	0.5 U	605	***1.5*** U	***66.3***	72.7	5.43
BKG-05-0.5	9/7/2005	***14000***	***16.7*** J	*74.8*	40.2	0.2 U	0.59	3640	*48.9*	9.24	22.4	27700	13.9	8310	1010	*0.338* J	22.4	1280	*0.6* U	0.5 U	568	***1.5*** U	***70.4***	75.5	5
BKG-06-0.5	9/9/2005	***14800***	2.51 J	*23.3*	9.74	0.2 U	0.25	797	*49.9*	1.24	8.2	16200	14.6	395	101	0.033 UJ	7.2	250	*0.78*	0.5 U	512	***1.5*** U	***42.5***	14.4	4.21
BKG-07-0.5	9/10/2005	***24900***	***8.23*** J	***700***	58.8	0.28	1.13	3620	39.2	5.29	*53.6*	29700	*52.3*	5030	403	0.0583 J	15.9	1850	*0.7*	0.54	472	***1.5*** U	***50.7***	*110*	3.97
BKG-08-0.5	9/8/2005	***7290***	1.65 J	*81.5*	34.2	0.2 U	0.39	423	*53.2*	2.33	19.7	22800	18.3	1150	323	0.0333 J	14.1	319	*0.6* U	0.5 U	269	***1.5*** U	***67.4***	29.6	3.72
BKG-09-0.5	9/8/2005	***39000***	1.9 J	*78.9*	83.1	0.49	0.73	3930	***93.5***	9.1	40.1	35500	21.5	11600	466	0.0583 J	*38.6*	2750	*6* U	0.5 U	738	***1.5*** U	***89***	*114*	4.81
BKG-10-0.5	9/8/2005	***32000***	2.43 J	*64.5*	12.1	0.2 U	0.54	925	36	1.61	13.3	28100	32	723	291	*0.147* J	10.2	354	*1.53*	0.66	320	***1.5*** U	***77.4***	30.6	4.08
G-1	8/25/2011	***34000***	1.3	*110*	51	0.87	0.33	620	***77***	***31***	***400***	36000	43	8600	470	0.043	*81*	1400	*1.7*	0.49	170	0.27 T	***80***	*120*	5.53
G-10	9/14/2011	***20000***	4.1	***180***	47	0.13 T	0.48	890	11	17	*130*	45000	*53*	5600	980	0.098	5.3	1500	*2.1*	0.69	250	0.33 T	***95***	71	4.67
G-11	9/14/2011	***17000***	***8.2***	***230***	52	0.16 T	0.78	1800 J	11	19	*140*	35000	*88*	5300	*1300*	*0.11*	8.2	1300	*1.2*	1.9	390	0.31 T	***79***	*160*	5.03
G-12	9/14/2011	***20000***	***6.5***	***260***	73	0.29	0.59	1200	11	***34***	*200*	55000	*80*	5000	***1800***	*0.11*	6.6	1400	*2*	0.79	280	0.27 T	***82***	*150*	5.05
G-2	8/25/2011	***23000***	1.4	*60*	66	0.4	0.44	1200	40	8.8	*88*	18000	32	3100	***1700***	*0.17*	*31*	640	*0.92*	0.52	120	0.21 T	***46***	75	5.03
G-3	8/25/2011	***4200***	0.26	6.2	19	0.077 T	0.057 T	380	6.7	2	13	5700	9.3	270	94	0.056	4.1	280	*0.33* T	0.56	110	0.13 U	***24***	15	4.23
G-4	8/25/2011	***11000***	0.37	*19*	66	0.18 T	0.21	540	27	5.9	*73*	27000	15	2000	170	0.081	14	510	*0.66* T	0.23	82 T	0.13 T	***83***	26	4.67
G-5	8/25/2011	***7700***	0.36	9.6	21	0.094 T	0.18 T	480	9.7	3.3 J	12 J	13000	9 J	1000	140	0.064	5.2	350	*0.33* T	0.28	140 J	0.14 U	***43***	19	4.89
G-6	9/14/2011	***23000***	2.7	*100*	23	0.26	0.37	300	25	5	*51*	22000	*59*	2400	180	*0.23*	10	400	*1.1*	0.62	120 T	0.3 T	***50***	61	4.48
G-7	9/14/2011	***13000***	2.9	***150***	19	0.084 T	0.2	560	7.4	3.9	26	24000	20	2200	190	0.037	3.3	350	*0.34* T	0.33	150	0.13 U	***64***	55	4.57
G-8	9/14/2011	***27000***	2.9	***160***	36	0.36	0.28	360	***71***	7.8	*76*	30000	*53*	5200	*1200*	*0.19*	*49*	610	*1.2*	0.4	95 T	0.31 T	***69***	*180*	5.01
G-9	9/14/2011	***22000***	***7.2***	***380***	72	0.37	0.62	1900	12	***50***	*190*	49000	*91*	5700	***2400***	0.1	7.2	1400	*1.8*	0.71	320	0.28 T	***87***	*270*	5.32
Seventysix Gulch Watershed																									
76-1	9/13/2011	***11000***	***46***	***430***	15	0.11 T	0.23	690	21	12	17	28000	*210*	4900	950	*0.83*	13	340	0.23 U	***3.5***	80 T	0.19 T	***38***	79	4.72
76-10	9/16/2011	***9400***	1.6	*69*	20	0.081 T	0.14 T	540	8.6	2.2	14	17000	20	880	92	*0.21*	5	300	*0.44* T	0.39	64 U	0.21 U	***43***	23	4.31
76-11	9/15/2011	***9400***	***43***	***400***	28	0.2 T	1.1	1600	15	11	28	22000	*170*	4000	*1200*	*0.56*	11	360	0.21 U	1.4	85 T	0.2 T	***29***	*210*	5.83
76-12	9/16/2011	***14000***	2.4	***430***	14	0.096 T	0.16 T	210	9.3	2.9	33	30000	25	2000	78	*0.14*	5	300 T	*1.3*	0.43	73 U	0.24 U	***57***	9.4	4.92
76-13	9/16/2011	***18000***	0.41 T	8.4	9.6	0.19 T	0.26 T	280	5.2	1	20	12000	7.5	60 T	19	*0.2*	3.6	70 T	*1.2* T	1	100 U	0.34 U	***14***	2.9 U	4.77
76-14	9/16/2011	***25000***	1.9	*65*	8.1	0.44	0.35	370	4.6	***28***	30	5400	17	160	560	*0.2*	0.96	40 T	*1.5*	0.8	64 U	0.21 U	***10***	26	5.41
76-15	9/16/2011	***27000***	1.7	*48*	31	0.36	0.14 T	810	12	3.4	28	22000	22	2000	130	*0.2*	6.2	300	*1.1*	0.53	57 U	0.19 U	***55***	34	5.04
76-16	9/16/2011	***13000***	0.24 T	6.6	40	0.059 T	0.16 T	250	10	2	13	19000	13	6200	240	0.094	8.8	1900	*0.37* T	0.51	60 T	0.17 U	***34***	32	4.81
76-17	9/16/2011	***35000***	2.5	*110*	30	0.27 T	0.28 T	270	19	4.4	44	29000	27	3100	160	*0.26*	9.7	380	*1* T	0.74	61 U	0.2 U	***57***	31	5.06
76-18	9/16/2011	***9800***	1.2	*27*	12	0.14 T	0.22 T	160	7.3	3.1	33	14000	*66*	940	94	*0.26*	4.3	130 T	*0.72* T	0.41	61 T	0.2 U	***29***	11	5.07
76-2	9/15/2011	***14000***	***20*** J	***430***	43	0.31	1	1900	26	13	27	28000	*170*	6500	*1400*	*0.81*	20	700	*0.56* T	1.4	250	0.31 T	***48***	*210*	5.59
76-3	9/13/2011	***18000***	***31***	*100*	30	0.22 T	0.22 T	390	16	10	16	24000	*59*	4100	*1300*	*0.47*	8.9	320	*0.48* T	0.45	62 T	0.2 T	***43***	68	4.85
76-4	9/16/2011	***29000***	3	*69*	26	0.27 T	0.065 T	150	17	3.9	19	43000	21	2500	130	*0.12*	8.2	290	*0.51* T	0.51	60 U	0.2 U	***110***	1.7 U	5.21
76-5	9/16/2011	***6100***	1.6	*14*	7.1	0.066 T	0.13 T	140	3.1	1.4	7.5	4900	7.6	87	54	0.052	1.2	39 T	0.28 U	0.38	85 T	0.18 U	***20***	11	5.05
76-6	9/16/2011	***9300***	1.2	9.6	11	0.15 T	0.32 T	270	5.1	2	13	13000	7.4	750	66	0.1	3.2	190 T	*0.38* T	0.42	88 T	0.24 U	***24***	8.3	4.97
76-7	9/29/2011	***560***	0.096 T	1.5	2.9	0.023 U	0.051 T	82	0.9	0.56	1.1	2300	1	48 T	10	0.057 U	0.68	42 T	0.21 U	0.13 T	89 T	0.14 U	***7***	4.8	4.96
76-8	9/29/2011	***6900***	0.77	*48*	16	0.17 T	0.25 T	900	4.5	2.8	16	15000	24	740	95	*0.11*	3.5	180 T	*0.65* T	0.46	84 T	0.19 U	***23***	29	5.28
76-9	9/16/2011	***56000***	***7.6***	***330***	38	0.62	0.9	450	19	4.3	***480***	33000	*60*	3000	300	*0.35*	11	530	*3.8*	1.3	66 U	0.22 U	***36***	*120*	5.43
BKG-01-0.5	9/8/2005	***16900***	4.03 J	*110*	24.4	0.2 U	0.77	2680	*42.7*	13.3	18.5	33900	28.2	10800	699	*0.177* J	21.2	1090	*0.6* U	0.5 U	258	***1.5*** U	***62.3***	*99.1*	4.19
BKG-02-0.5	9/8/2005	***15500***	4.28 J	*127*	70.7	0.3 U	0.95	2350	40.9	16.1	*78.7*	35800	34.6	9020	986	0.0683 J	*36.7*	3290	*0.6* U	0.5 U	240	***1.5*** U	***56.5***	*132*	4.2
Weden Creek Watershed																									
W-1	9/12/2011	***32000***	0.32	*17*	80	0.51	0.39	720	*62*	11	34	32000	17	5600	520	*0.15*	*39*	570	*1.3*	0.61	130 T	0.2 U	***75***	65	4.96
W-10	8/24/2011	***6100***	0.17 T	3.5	9.1	0.073 T	0.092 T	130	8.6	1.7	11	12000	5.8	340	32	*0.11*	3.9	150 T	*0.42* T	0.13 T	110 T	0.17 U	***29***	19	4.7
W-11	8/24/2011	***2000***	0.2 T	3.2	3.4	0.025 U	0.054 T	360	4.5	1.5	3.3	7200	5.5	200	36	0.051	1.8	130 T	0.23 U	0.13 T	150	0.15 U	***33***	12	4.23
W-12	8/24/2011	***28000***	0.27 J	*12*	38	0.26	0.22 T	810	29 J	7	36 J	29000	9.1	3900	190 J	*0.15*	21	290	*0.72* T	0.21 T	87 T	0.16 U	***74***	39 J	4.84
W-13	8/24/2011	***61000***	0.36	*15*	77	0.94	0.29	1400	*64*	***22***	*77*	46000	12	10000	410	*0.18*	*71*	610	*1.2*	0.17 T	80 T	0.18 T	***82***	*120*	5.63
W-14	8/24/2011	***19000***	0.26	*11*	19	0.14 T	0.12 T	290	21	5.5	28	23000	8.3	3400	110	*0.13*	19	270	*0.5* T	0.11 T	72 T	0.12 U	***47***	32	4.31
W-15	8/24/2011	***31000***	0.34	*25*	77	0.64	0.16 T	840	***100***	***28***	***280***	40000	9.7	22000	530	0.079	*320*	690	*0.7* T	0.21	130	0.25 T	***64***	*89*	5.64
W-16	8/23/2011	***31000***	0.29	9.9	20	0.23	0.22 T	250	34	3.4	36	26000	10	1000	63	*0.27*	17	200	*0.91*	0.38	140	0.15 U	***61***	23	4.95
W-17	9/12/2011	***29000***	0.3 T	*17*	52	0.73	0.3 T	730	*44*	11	21	32000	10	4300	320	*0.13*	*31*	340	*1.2*	0.21 T	110 T	0.21 U	***65***	48	5.17
W-18	9/12/2011	***28000***	0.55	*25*	46	0.43	0.4	530	33	6	23	26000	29	3600	180	*0.27*	26	410	*1.2*	0.15 T	94 T	0.22 U	***55***	53	4.85
W-19	9/12/2011	***38000***	0.87	*62*	*120*	0.93	0.2 T	300	***81***	***24***	*79*	56000	22	8100	670	*0.16*	*110*	680	*1.6*	0.29 T	110 T	0.26 T	***86***	*140*	5.02
W-2	9/12/2011	***17000***	0.17 T	9.3	27	0.15 T	0.13 T	240	19	2.3	11	20000	5.5	1100	83	*0.21*	9.6	150 T	*0.73* T	0.29	98 T	0.19 U	***48***	20	4.8
W-21	9/12/2011	***24000***	0.44 J	*28*	41	0.44	0.21 T	540	32	5.4	19	26000	26	2700	150	*0.23*	21	400	*1.1*	0.19 T	110 JT	0.16 U	***64***	46 J	4.82
W-22	9/12/2011	***18000***	0.47	*20*	25	0.099 T	0.25 T	200	26	2.4	14	32000	14	970	86	*0.24*	9.5	210 T	*0.72* T	0.52	150	0.31 T	***59***	24	4.56
W-23	9/12/2011	***4400***	0.22 T	*28*	16	0.055 T	0.084 T	130	29	2	15	10000	3.6	260	43	*0.11*	9.4	130 T	*0.32* U	0.11 T	110 T	0.21 U	***65***	16	4.18
W-3	9/12/2011	***15000***	0.48	*17*	37	0.16 T	0.3 T	330	27	4	19	20000	27	2300	210	*0.13*	17	400	*1* T	0.79	83 T	0.22 T	***54***	66	4.57
W-6	9/12/2011	***27000***	0.36	*18*	76	0.36	0.32	830	*55*	9.9	36	28000	12	5700	410	*0.14*	*41*	460	*0.95* T	0.34	110 T	0.18 U	***61***	66	4.95
W-7	9/12/2011	***4500***	0.11 T	3.7	14	0.066 T	0.085 T	150	5.2	1.3	6.9	6400	5.1	180	30	0.061	3.6	58 T	0.3 T	0.19 T	150	0.18 U	***22***	13	4.36
W-8	8/23/2011	***17000***	0.46	*120*	54	0.34	0.21	1500	*63*	15	*92*	37000	14	17000	420	0.084	*130*	1200	*0.77*	0.13 T	330	0.29 T	***61***	62	4.47
W-9	8/24/2011	***23000***	0.27	8.5	53	0.35	0.16 T	570	27	6	24	37000	10	2400	200	0.095	16	250	*0.47* T	0.15 T	110	0.15 T	***120***	40	5.23

Italic Exceeds the lowest EISC listed in Table 19.
Bold italic Exceeds the maximum EISC listed in Table 19.
[a] Constituent is an essential element, considered non-toxic under a wide-range of environmental concentrations, and is excluded from further evaluation.

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Table 19 – Potential Chemical-Specific RBCs, Site-Specific Background, and Proposed Screening Criteria for Waste Rock, Soil, and Tailings

Constituents of Concern (mg/kg)	Lowest Potential Soil ARAR (a)	Site-Specific Background (b)	State of Washington							Federal	
				MTCA Method B Soil Cleanup Levels			Ecological Indicator Screening Criteria			EPA Eco-SSLs (g)	
			MTCA Method A Soil Cleanup Levels (c)	Soil Ingestion (d)	Soil Ingestion and Dermal Contact (d)	Groundwater Protection (e)	Protection of Plants (f)	Protection of Soil (f)	Protection of Wildlife (f)	Protection of Plants	Protection of Soil Invertebrates
Aluminum (Al)	50	37,271	--	--	--	--	50	--	--	pH dependant	ph dependant
Antimony (Sb)	5	8	--	32	28.8	5.42	5	--	--	--	78
Arsenic (As)	0.6	262	20	0.67	0.62	5.84	-- / 10 (h)	-- / 60 (h)	7 / 132 (h)	18	--
Barium (Ba)	102	83	--	16,000	14,400	1,650	500	--	102	--	330
Beryllium (Be)	10	1	--	160	140	63	10	--	--	--	40
Cadmium (Cd)	0.69	0.77	2	80	74	0.69	4	20	14	32	140
Calcium (Ca) (l)	--	1,943	--	--	--	--	--	--	--	--	--
Chromium III (Cr III)	42	71	2,000	120,000	44,600	2,000	42 (i)	42 (i)	67 (i)	--	--
Chromium IV (Cr IV)	19		19	240	128	38.4					
Cobalt (Co)	13	20	--	--	--	--	20	--	--	13	--
Copper (Cu)	50	131	--	2,960	2,700	577	100	50	217	70	80
Iron (Fe)	91.2	36,136 (j)	--	24,000	21,600	91.2	--	--	--	pH & Eh dependant	pH & Eh dependant
Lead (Pb)	50	71	250	--	--	--	50	500	118	120	1,700
Magnesium (Mg) (l)	--	9,744									
Manganese (Mn)	220	1,242	--	11,200	10,100	2,340	1,100	--	1,500	220	450
Mercury (Hg, inorganic)	0.1	0.39	2	24	18	2.09	0.3	0.1	5.5	--	--
Nickel (Ni)	30	54	--	1,600	1,400	130	30	200	980	38	280
Potassium (K) (l)	--	1,470	--	--	--	--	--	--	--	--	--
Selenium (Se)	0.3	1.64	--	400	360	5.2	1	70	0.3	0.52	4.1
Silver (Ag)	2	1	--	400	360	13.7	2	--	--	560	--
Sodium (Na) (l)	--	361	--	--	--	--	--	--	--	--	--
Sulfur (S)	--	--	--	--	--	--	--	--	--	--	--
Thallium (Th)	1	0.33 (k)	--	5.6	5	2.85	1	--	--	--	--
Vanadium (Va)	2	92	--	560	505	2,240	2	--	--	--	--
Zinc (Zn)	86	151	--	24,000	22,000	5,970	86	200	360	160	120

Notes:

(a) Lowest potential ARAR from shaded source.

(b) Site-specific background values calculated by pooling 60 background soil samples across three watersheds using proUCL 4.1.

(c) WAC 173-340-740(2), WAC 173-340-900 (Table 740-1). Model Toxics Control Act (MTCA) Method A soil cleanup levels.

(d) WAC 173-340-740(3). MTCA Method B unrestricted land use soil cleanup standards. For carcinogenic constituents, the value presented is the lower of the non-carcinogenic and carcinogenic level calculated using Equations 740-1 and 740-2 for ingestion only. Equations 740-4 and 740-5 for ingestion and dermal contact. Information from CLARC 3.1 was used unless otherwise noted.

(e) WAC 173-340-740(3)(b)(iii)(A); MTCA Method B unrestricted land use soil cleanup standards, groundwater protection. Values calculated using the MTCA three-phase partitioning model WAC 173-340-747(4).

(f) MTCA 173-340-900 (Table 749-3).

(g) EPA Ecological Soil Screening Levels (ECO-SSL) are found at http://www.epa.gov/ecotox/ecossl/.

(h) Based on Arsenic III / Arsenic V.

(i) Based on total Chromium.

(j) Follows a normal distribution, so value represents the true upper 80th percentile (MTCA 173-340-709(3(d))).

(k) Because more than 50% of the measurements in the dataset are below the practical quantitation limit, value represents the maximum concentration (MTCA 173-340-740(7(f(iv))).

(l) Constituent is an essential element, considered non-toxic under a wide-range of environmental concentrations, and is excluded from further evaluation.

-- Not established or not applicable.

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Table 20 – Analytical Results for Ecological Exposure Area Soil Samples

Ecological Exposure Area	Soil EPC (mg/kg)																						
	Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium [a]	Chromium	Cobalt	Copper	Iron	Lead	Magnesium [a]	Manganese	Mercury	Nickel	Potassium [a]	Selenium	Silver	Sodium [a]	Thallium	Vanadium	Zinc
Risk-based criteria	50	5	0.62	102	10	0.69	--	42	13	50	91.2	50	--	220	0.1	30	--	0.3	2	--	1	2	86
Site background	37,271	8	262.3	83	1	0.77	1,943	71	20	131	36136	71	9,744	1,242	0.393	54	1470	1.639	1	360.6	0.33	92	151
Area 1	*10022*	***4301***	***32028***	***294.3***	0.506	***28.22***		*54.32*	7.222	***943.4***	***67590***	***10092***		*803.6*	***4.138***	19.61		***2.059***	***131.3***		***3.671***	*46.61*	***2822***
Area 2	*15813*	***71.92***	***27439***	62.51	0.133	***1.293***		***72.63***	***47.76***	***741.9***	***105833***	***593.6***		*1129*	***0.55***	12.56		***12.07***	***25.78***		0.327	*44.94*	***306.4***
Area 3	*15204*	***3827***	***12730***	57.5	0.265	***14.77***		11.55	***20.51***	***524.3***	***94482***	***16364***		***7924***	***1.279***	23.85		***2.777***	***101.7***		***3.053***	*50.59*	***1090***
Area 4	*15017*	***675.4***	***38158***	56.87	0.463	***323.3***		17.69	***26.31***	***260.9***	***76199***	***4238***		***4200***	***1.448***	25.12		*1.441*	***13.92***		0.458	*53.96*	***2138***
Area 5	*33561*	4.393	***326.8***	91.33	0.778	0.653		***103.9***	***31.21***	*114.3*	***43809***	***72.01***		*1100*	*0.23*	***180.8***		*1.037*	0.122		0.214	***103.9***	*134.9*

Exceeds the site-specific background listed in Table 19.
Italic Exceeds the lowest RBC listed in Table 19.
Bold italic Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
EPC - exposure point concentration
COC - constituent of concern
[a] Constituent is an essential element, considered non-toxic under a wide-range of environmental concentrations, and is excluded from further evaluation.

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Table 21 – Analytical Results for Mine Feature Soil Samples

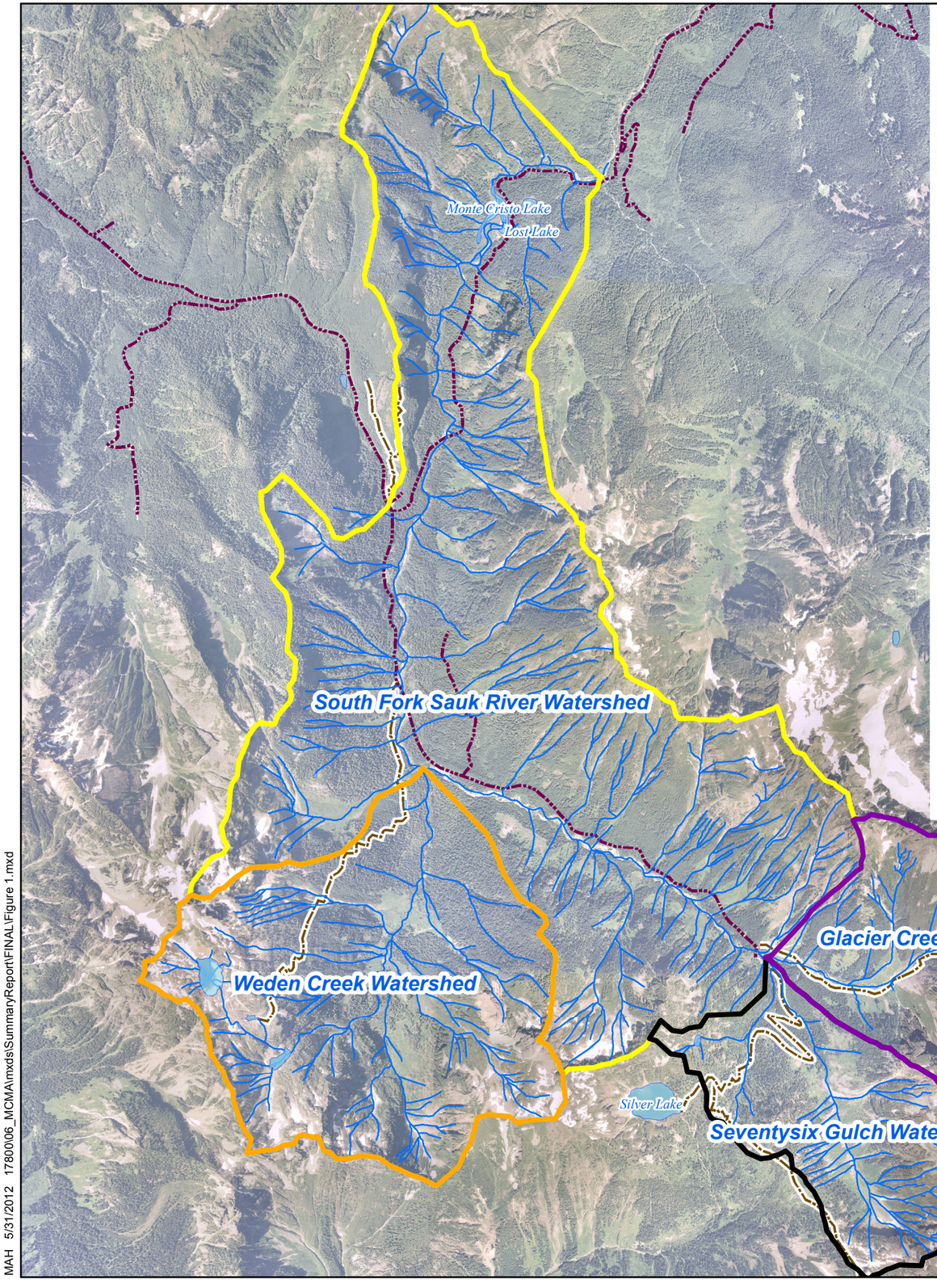
Ecological Exposure Area	Mine Feature	Composite	Maximum Concentrations (mg/kg)																						
			Aluminum	Antimony	Arsenic	Barium	Beryllium	Cadmium	Calcium [a]	Chromium	Cobalt	Copper	Iron	Lead	Magnesium [a]	Manganese	Mercury	Nickel	Potassium [a]	Selenium	Silver	Sodium [a]	Thallium	Vanadium	Zinc
	Risk-based criteria		50	5	0.62	102	10	0.69	--	42	13	50	91.2	50	--	220	0.1	30	--	0.3	2	--	1	2	86
	Site background		37,271	8	262.3	83	1	0.77	1,943	71	20	131	36136	71	9,744	1,242	0.393	54	1470	1.639	1	360.6	0.33	92	151
Glacier Creek Watershed																									
Area 1	Concentrator	N	*25800*	***10700***	***92100***	***522***	1.85	***114***	7390	***94.5***	***28.1***	***4240***	***142000***	***21400***	8440	***7210***	***8.35***	*45.6*	2500	***6000***	***376***	883	***15.8***	*90.5*	***18500***
Area 3	Golden Cord Mine	N		***970***	***33600***	0.02		***55***		30		***801***		***10000***			***1.8***			***50***	***30***				***3550***
Area 1	Haulage Way	N	*22700*	***570***	***22600***	***1220***	2.93	***5.5***	14300	***142***	12.5	***2880***	***68500***	***2990***	8020	*549*	***0.613***	*50*	1900	*1.5*	***102***	1130	***4***	***104***	***970***
Area 3	IXL Dump of Tunnel	N	*27000*	***58***	***7800***	***130***	0.6	***4.2***	2400	8.1	***24***	***170***	***54000***	***170***	4300	***16000***	***0.92***	8	1800	*1.4*	***2.7***	200	***7.3***	*84*	***540***
Area 2	Justice Mine	N		***280***	***39400***	0.105		***50***		***217***		***1660***		***1660***			***0.53***			***50***	***30***				***577***
Area 1	Lower Mill	N	*990*	***4170***	***15000***	31.1	0.2	***7.03***	237	2.19	0.6	***329***	***49700***	***8800***	227	205	***1.68***	1	1050	***1.85***	***91.4***	107	1	*11.5*	***401***
Area 3	Mystery Mine	N	*7370*	***8800***	***24300***	81	0.25	***26.4***	5580	30	***21.2***	***1040***	***272000***	***89200***	3000	***4820***	***3.06***	***82.7***	3370	***17.4***	***307***	294	***5.8***	*73.9*	***3540***
Area 3	New Discovery Mine	N		***200***	***22100***	0.029		***50***		30		***844***		***3460***			***2.41***			***50***	***30***				***1770***
Area 1	Ore Collector	N	*10700*	***9860***	***88700***	***113***	2	***114***	5130	***81.5***	12.9	***1840***	***149000***	***22500***	4460	***1330***	***8.7***	***100***	4280	***4.4***	***415***	500	***10***	*41.7*	***17400***
Area 1		Y	*3870*	***170***	***19200***	88.9	2	***9.8***	880	*60.3*	6	***1140***	***65000***	***5210***	1010	*532*	***0.402***	*50*	3860	*1.2*	***60.2***	500	***4***	*27.3*	***1730***
Area 3	Portland No. 2	N	*16000*	***32***	***1200***	50	0.25	***16***	3700	9.5	***36***	***270***	***63000***	***430***	5300	***11000***	***1.2***	10	1300	*0.71*	***3.9***	480	0.38	*59*	***940***
Area 3	Potomac Silver	N	*26000*	0.94	*110*	6.3	0.23	0.17	790	9.2	2	***1100***	*15000*	***330***	320	140	*0.12*	2	150	*0.79*	***4.2***	290	0.15	*29*	23
Area 3		Y	*3300*	3.6	***4900***	93	0.044	0.065	490	1.6	4.3	***410***	***61000***	***380***	2200	110	***0.5***	1.7	3000	***1.8***	***28***	170	0.26	*29*	34
Area 3	Pride of the Mountains Mine	N		***103***	***11700***	0.084		***30***		30		***630***		***1590***			***0.7***			***30***	***12***				***1120***
Area 3	Pride of the Woods Mine	N		***250***	***5880***	0.034		0.69		11		***221***		***1260***			***3.72***			*0.88*	***42.5***				***184***
Area 2	Pusher Lode	N	*14000*	***20***	***31000***	64	0.084	0.41	660	6.9	***29***	***700***	***100000***	*59*	4500	*320*	***0.88***	2.9	2100	***25***	***5.7***	100	0.47	*63*	68
Area 2	Rainy Mine	N		***400***	***73400***	0.055		***1.87***		32		***523***		***880***			***0.99***			*1.22*	***16.9***				***352***
Area 1	Upper Mill	N	*2000*	***2240***	***31300***	53.8	0.2	***8.54***	448	6.84	2.71	***591***	***73000***	***7890***	1570	*530*	***2.13***	1	952	***2.87***	***62.4***	84	***2***	*13.5*	***943***
Seventysix Gulch Watershed																									
Area 4	74 Mine	N	*22000*	***17***	***5100***	73	0.6	***15***	3100	14	***32***	***170***	***69000***	***3600***	6400	***5900***	*0.33*	24	2100	***1.8***	***20***	240	0.36	*51*	***2600***
Area 1	Assay Shack	N	*3290*	***4500***	***85800***	***203***	0.2	***4.33***	2340	*54.3*	4.4	***338***	***121000***	***10200***	509	199	***36.3***	5.2	1730	***3***	***57.9***	488	***8***	*32.2*	***644***
Area 2	Boston-American Mine	N		0.5	*226*	0.195		0.45		16		*131*		23.3			***0.89***			*0.93*	0.46				*114*
Area 4	Comet Terminal	N	*28200*	***2690***	***102000***	***125***		***742***		41.6		***557***	***144000***	***20400***		***1710***	***4.9***	***107***							***8000***
Area 4	Congress Mine	N	*11000*	***48***	***2900***	38	0.5	***12***	4700	7.2	***24***	***150***	***57000***	***3400***	3800	***5400***	***0.73***	21	1300	*1.4*	***16***	76	0.35	*32*	***1500***
Area 4	Emma Moore No. 1	N	*21000*	*5.9*	***2800***	57	0.63	***17***	1700	18	***44***	***290***	***76000***	***1400***	6600	***5400***	***0.56***	21	1400	*1.6*	***11***	87	0.26	*50*	***2100***
Area 4	Ibex No. 1	N	*5500*	***110***	***4600***	51	0.57	***5***	4200	3.3	***26***	*56*	***85000***	***360***	2000	***10000***	***0.9***	2.7	490	*1.1*	***9.2***	72	0.93	*82*	***510***
Area 4	Independence of 1776 Mine	N	*11000*	***300***	***11000***	33	0.35	***31***	5600	15	***21***	***410***	***87000***	***1700***	3600	***5600***	***1.2***	12	870	***2.3***	***29***	99	0.56	***99***	***4700***
Area 2	Lincoln Mine	N	*28900*	1.6	*63.2*	60.5		***6.3***		23.3		45.5	*22000*	22.9		*420*	0.07	17.5							*115*
Area 2	O&B Mine	N	*13000*	***28***	***52000***	***110***	0.21	***2***	2300	5.3	***78***	***1700***	***200000***	***1200***	3400	***2100***	***1***	18	1700	***2.5***	***70***	66	0.28	*23*	***420***
Area 2	Sheridan Mine	N		***10***	***2120***	0.025		***4.23***		27		*69*		***129***			***0.99***			*0.75*	***3.69***				***971***
Area 2	Sidney Mine	N		***200***	***38400***	0.06		***1.7***		7		***2460***		***117***			***0.51***			*1.2*	***14.9***				***337***
Weden Creek Watershed																									
Area 5	Mackinaw Tunnel No. 1	N	*32000*	0.54	*15*	***110***	0.58	0.36	2900	***140***	***33***	*88*	***53000***	12	25000	***1300***	*0.14*	***260***	840	*1.1*	0.14	120	0.21	***97***	84
Area 5	Mackinaw Tunnel No. 2	N	*13000*	0.35	*33*	***120***	0.93	0.21	2300	***75***	*18*	*74*	*16000*	14	9600	*240*	0.064	***110***	2000	*0.81*	0.08	94	0.23	*14*	31
Area 5	Weden Siding	N	*32600*	***9.3***	***347***	48.7		***1***		*43.4*		***159***	***37900***	***80.6***		*1060*	*0.34*	*33.1*							***192***

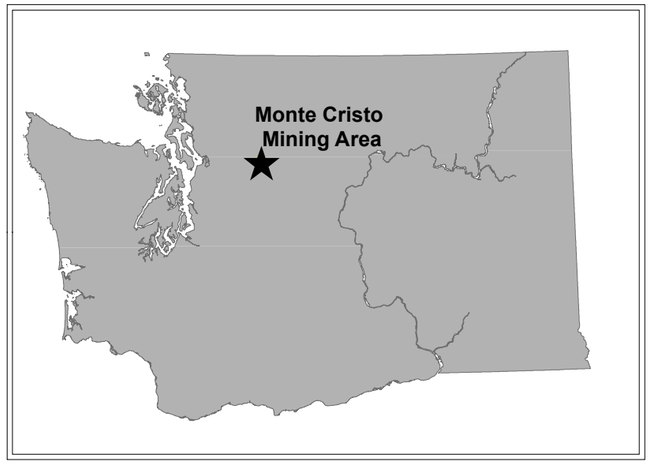
Exceeds the site-specific background listed in Table 19.
Italic Exceeds the lowest RBC listed in Table 19.
Bold italic Exceeds both the lowest RBC and site-specific background values listed in Table 19 - COC.
COC - constituent of concern
[a] Constituent is an essential element, considered non-toxic under a wide-range of environmental concentrations, and is excluded from further evaluation.

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FIGURES

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Legend

- Roads
- Trails
- Streams
- Lakes

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

Aerial photograph used as the basemap for all figures supplied by the Washington State Department of Ecology.

1 inch = 4,000 feet

0 0.25 0.5 0.75 1 1.25 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Vicinity Map

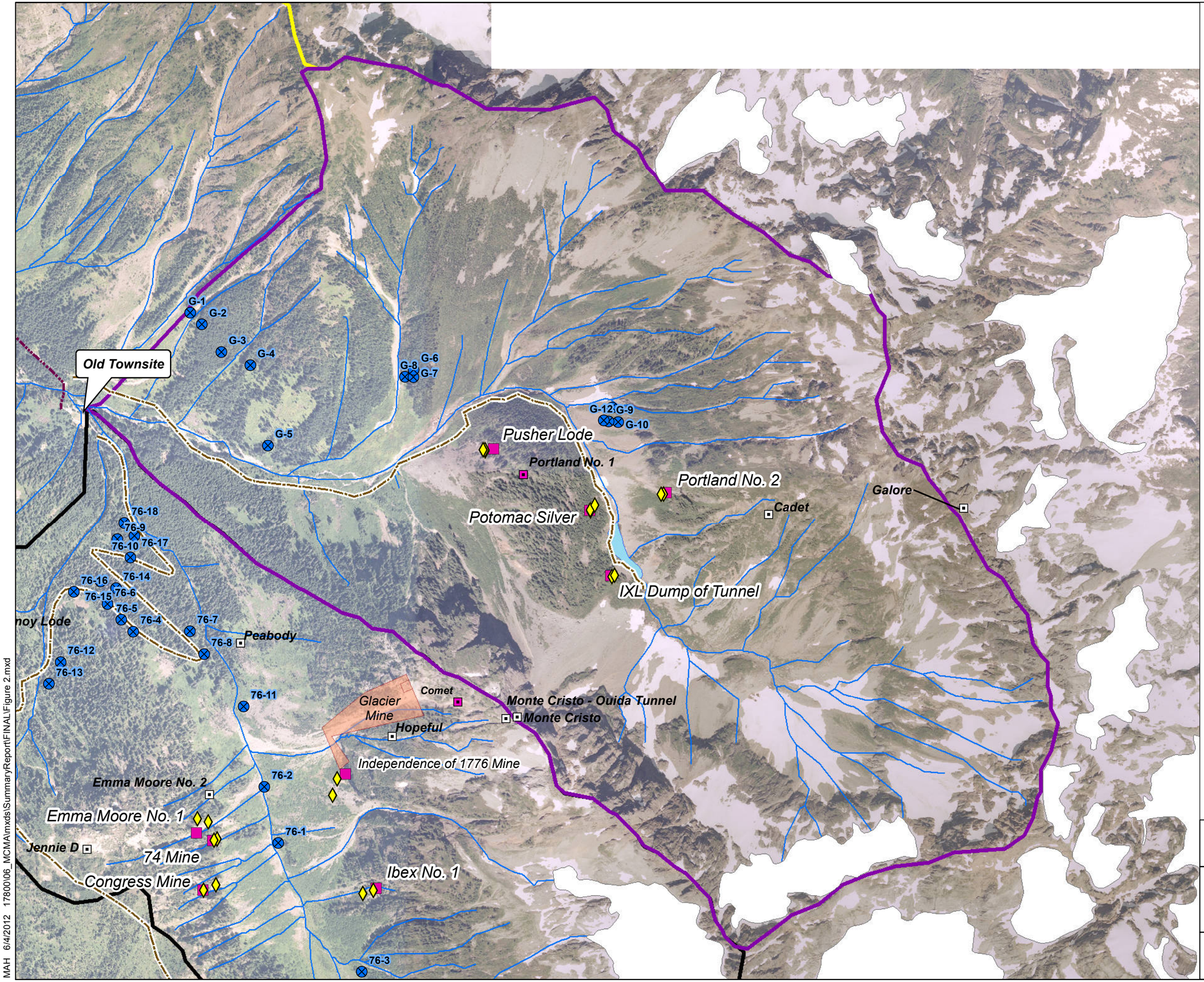
17800-06 5/12

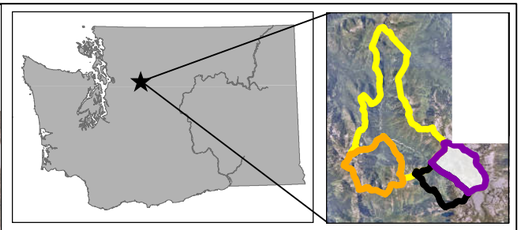
HARTCROWSER

Figure 1

MAH 5/31/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 1.mxd

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Legend

Sampled in 2011

- Background soil sample
- Mine feature soil sample
- Mine features sampled in 2011
- Reported mine features not looked for in 2011
- Mine feature looked for in 2011 and not found
- Patented claim with no mine feature found in 2011

Features

- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,250 feet

0 0.09 0.18 0.27 0.36 0.45 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Glacier Creek Watershed
Sampling Activity in 2011

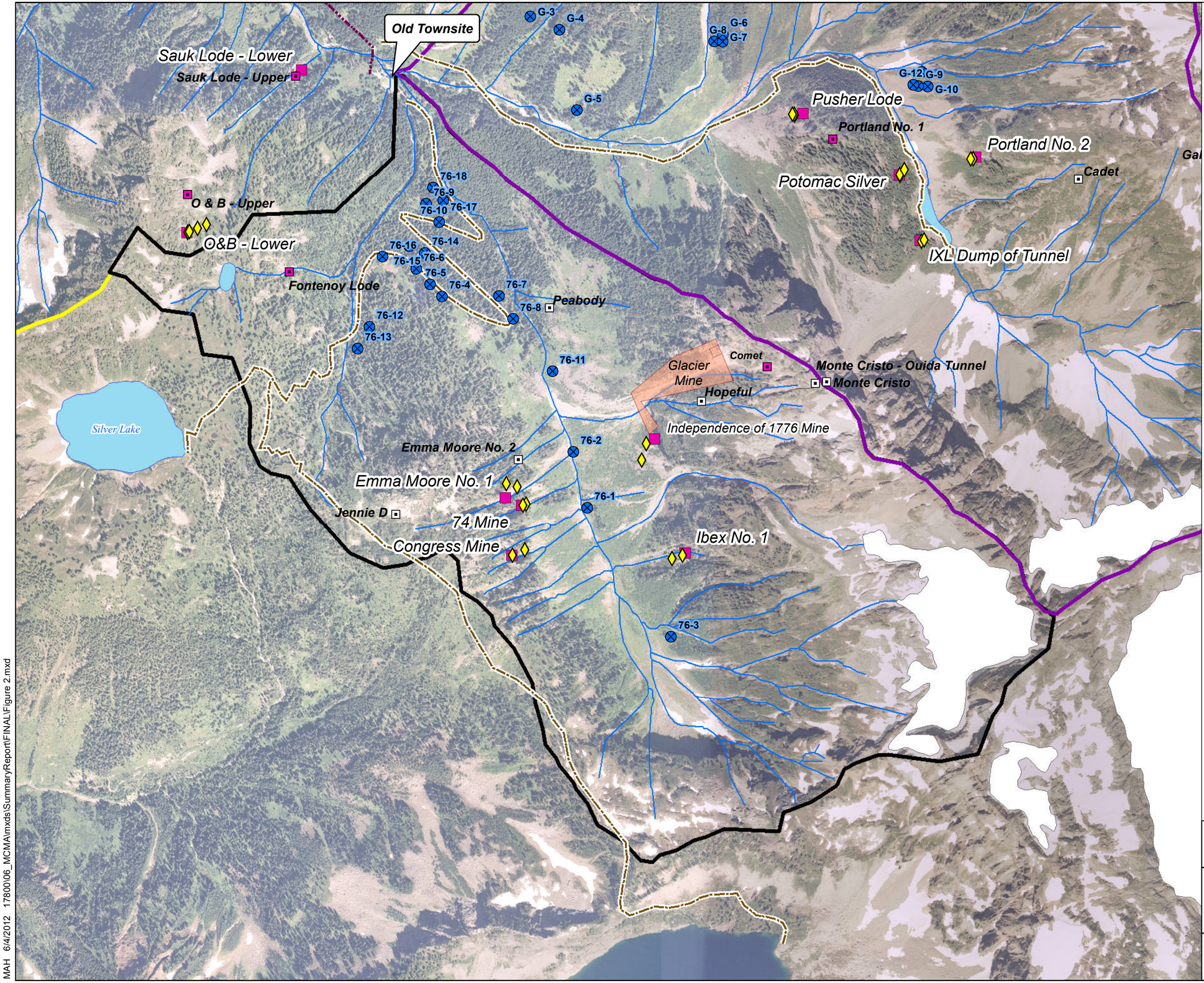
17800-06 5/12

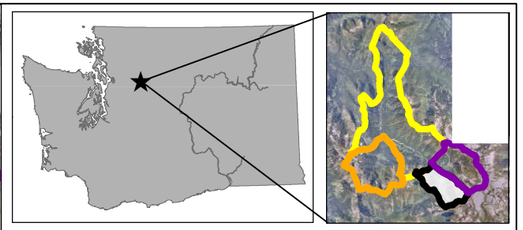
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Figure
2A

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReportFINAL\Figure 2.mxd

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Legend

Sampled in 2011

- Background soil sample
- Mine feature soil sample
- Mine features sampled in 2011
- Reported mine features not looked for in 2011
- Mine feature looked for in 2011 and not found
- Patented claim with no mine feature found in 2011

Features

- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,250 feet

0 0.09 0.18 0.27 0.36 0.45 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Seventysix Gulch Watershed
Sampling Activity in 2011

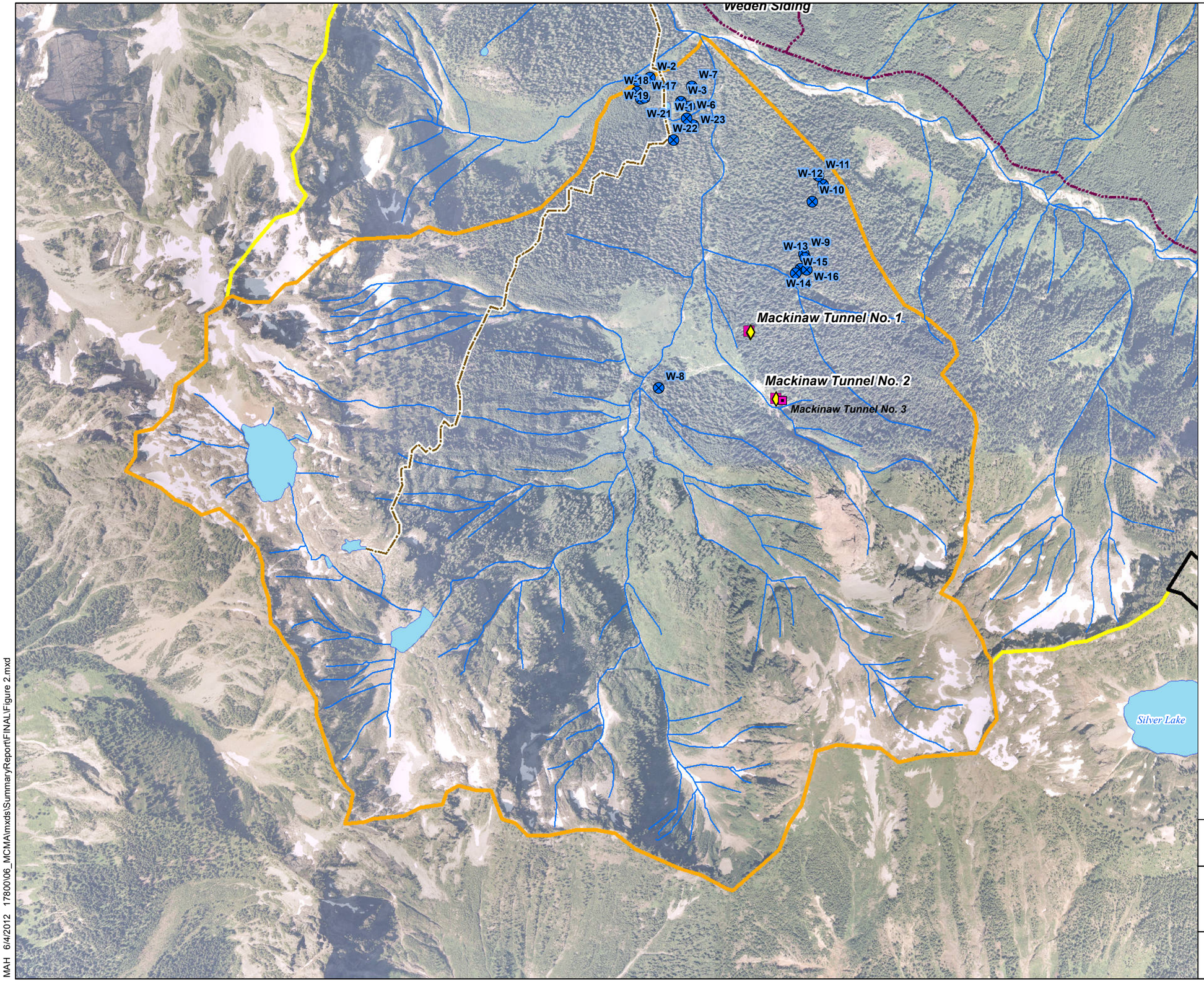
17800-06 5/12

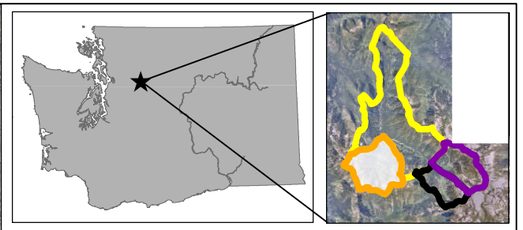
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Figure
2B

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 2.mxd

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Legend

Sampled in 2011

- Background soil sample
- Mine feature soil sample
- Mine features sampled in 2011
- Reported mine features not looked for in 2011
- Mine feature looked for in 2011 and not found
- Patented claim with no mine feature found in 2011

Features

- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,500 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Weden Creek Watershed
Sampling Activity in 2011

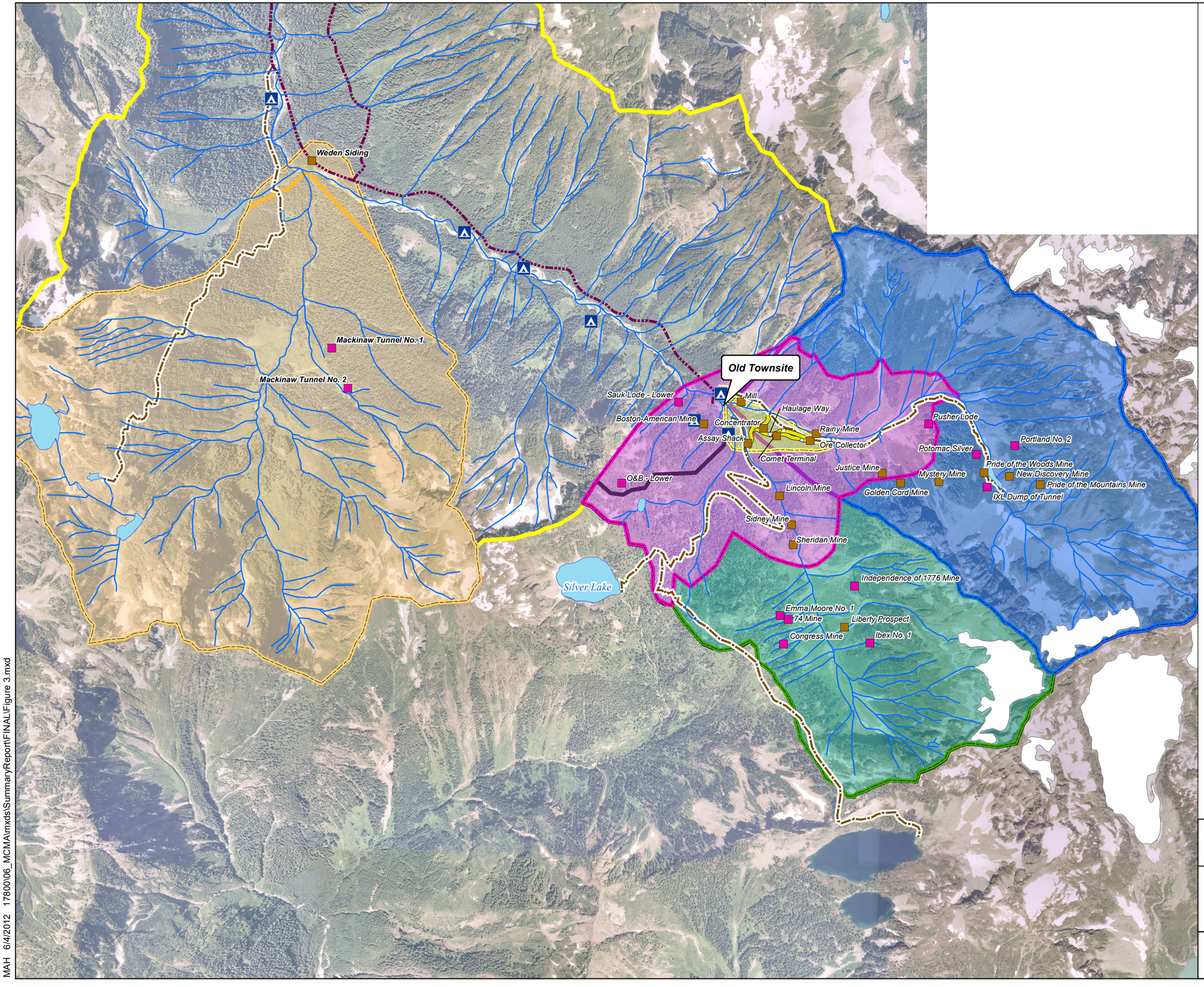
17800-06 5/12

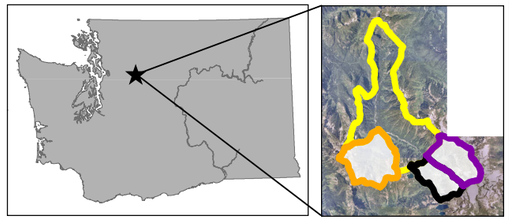
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Figure
2C

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 2.mxd

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Legend

- Mine features sampled in 2011
- Mine features sampled before 2011
- Haulage Ways

Features

- Campgounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Ecological Exposure Areas

- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upper Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

Note: Ecological exposure area delineations discussed in Section 3.4.

N

1 inch = 2,500 feet

Miles
0 0.1 0.2 0.3 0.4 0.5

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Ecological Exposure Areas

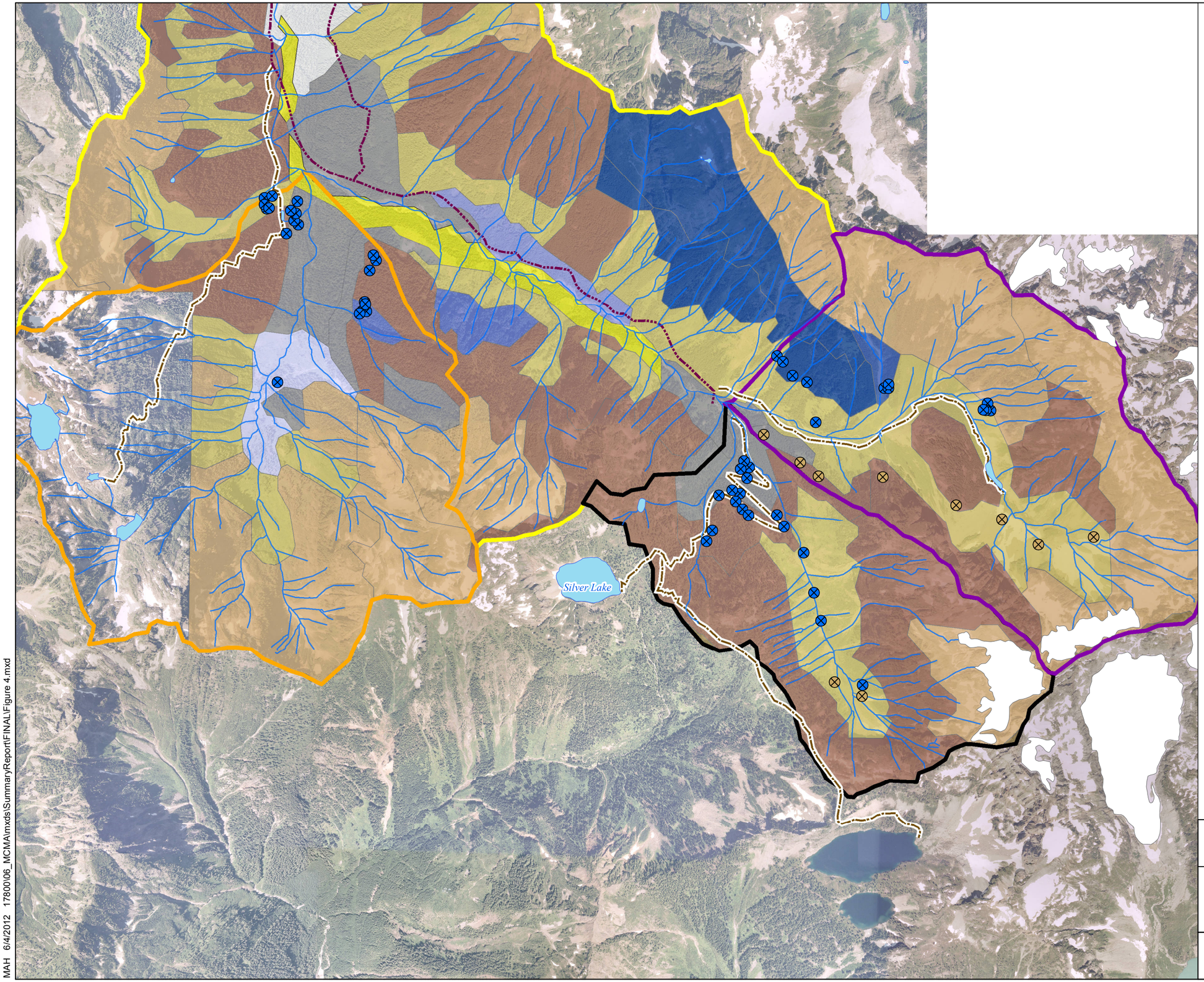
17800-06 5/12

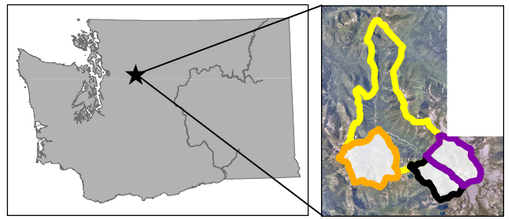
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Figure
3

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 3.mxd

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Legend

Sampled in 2011
- Background soil sample

Sampled before 2011 by others
- Background soil sample

Surface soil type
- Colluvial boulder deposits
- Colluvium
- Colluvium and colluviated till
- Colluvium and till
- Residium and colluvium
- Glacial till and drift
- Glacial till of granitic origin
- Interbedded glaciolacustrine/alluvial and till deposits
- Organics
- Rock outcrop
- Rock outcrop/talus slopes/residium and colluvium
- Rock outcrop/talus/meadows
- Talus slopes
- Stream-deposited fresh sand and gravel

Features
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds
- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

Note: Geology data acquired from the US Forest Service GIS library.

N

1 inch = 2,500 feet

0 0.2 0.4 0.6 0.8 1 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Geology Map

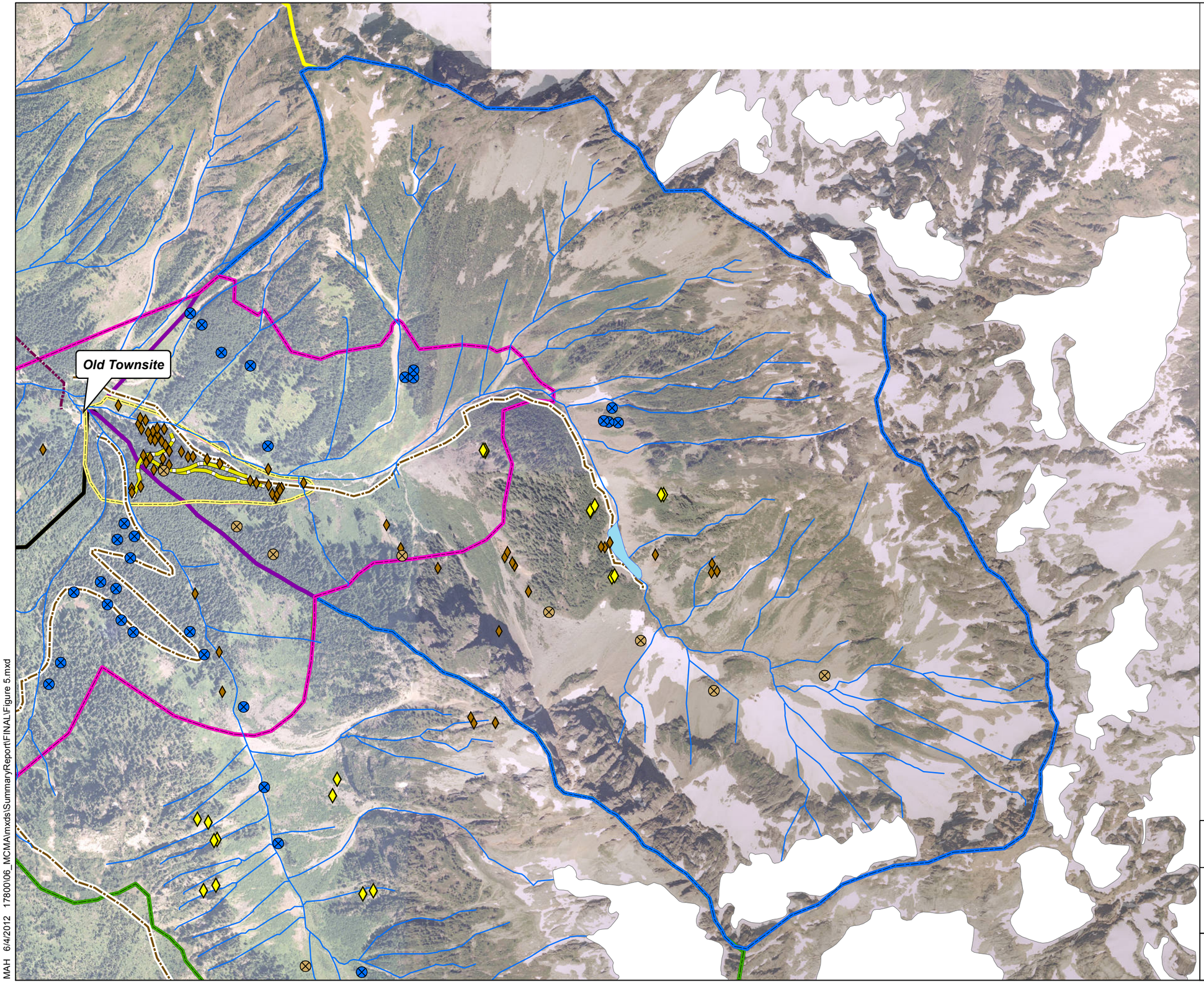
17800-06 5/12

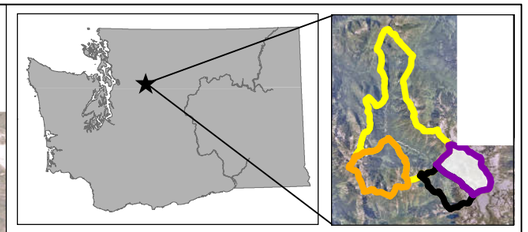
HARTCROWSER

Figure 4

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 4.mxd

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Legend

Sampled in 2011

- Background soil sample
- Mine feature soil sample

Sampled before 2011 by others

- Background soil sample
- Mine feature soil sample
- Haulage ways

Features

- Roads
- Trails
- Streams
- Lakes
- Ice

Ecological Exposure Area boundaries

- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upper Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Glacier Creek Watershed
Soil Sample Locations

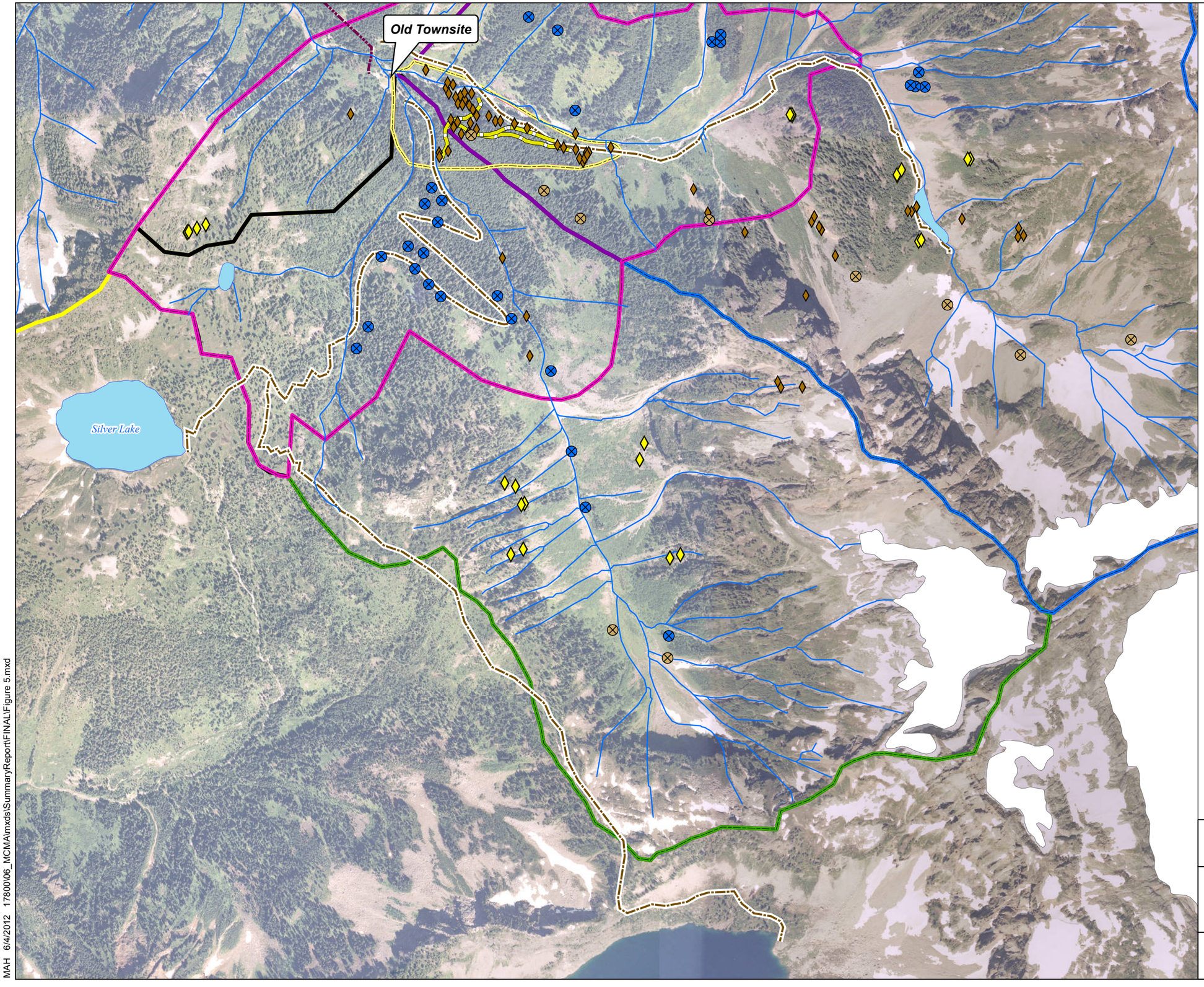
17800-06 5/12

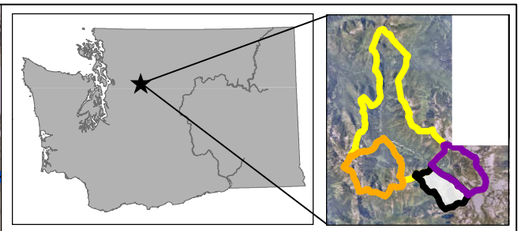
HARTCROWSER

Figure
5A

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 5.mxd

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Legend

Sampled in 2011
- Background soil sample
- Mine feature soil sample

Sampled before 2011 by others
- Background soil sample
- Mine feature soil sample
- Haulage ways

Features
- Roads
- Trails
- Streams
- Lakes
- Ice

Ecological Exposure Area boundaries
- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upper Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Seventysix Gulch Watershed
Soil Sample Locations

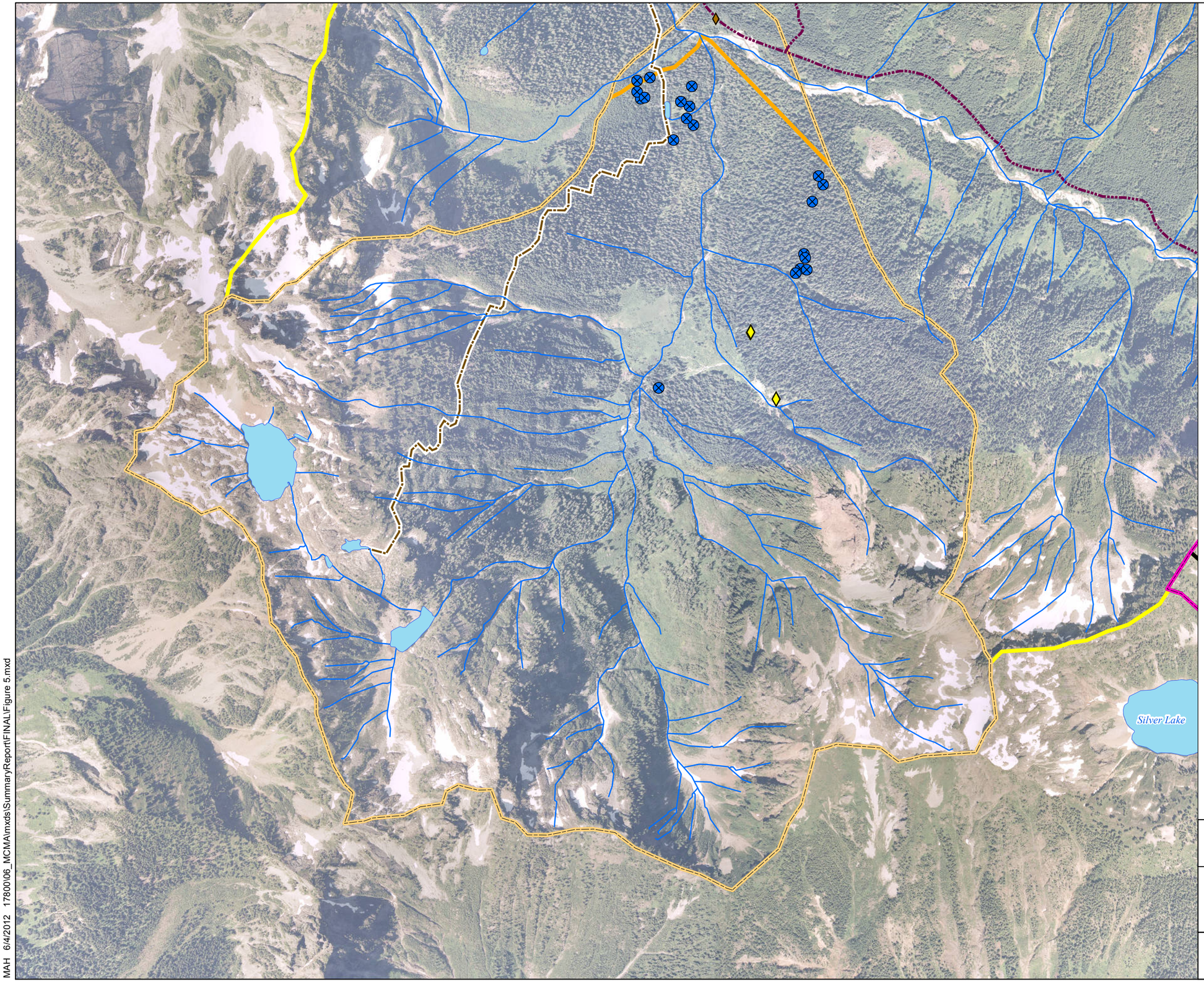
17800-06 5/12

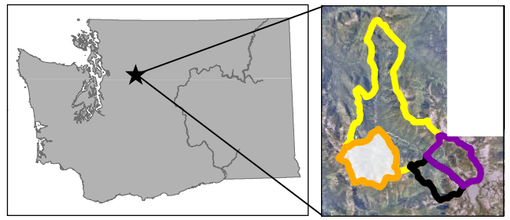
HARTCROWSER

Figure
5B

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 5.mxd

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Legend

Sampled in 2011

- Background soil sample
- Mine feature soil sample

Sampled before 2011 by others

- Background soil sample
- Mine feature soil sample
- Haulage ways

Features

- Roads
- Trails
- Streams
- Lakes
- Ice

Ecological Exposure Area boundaries

- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upper Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

N

1 inch = 1,500 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Weden Creek Watershed
Soil Sample Locations

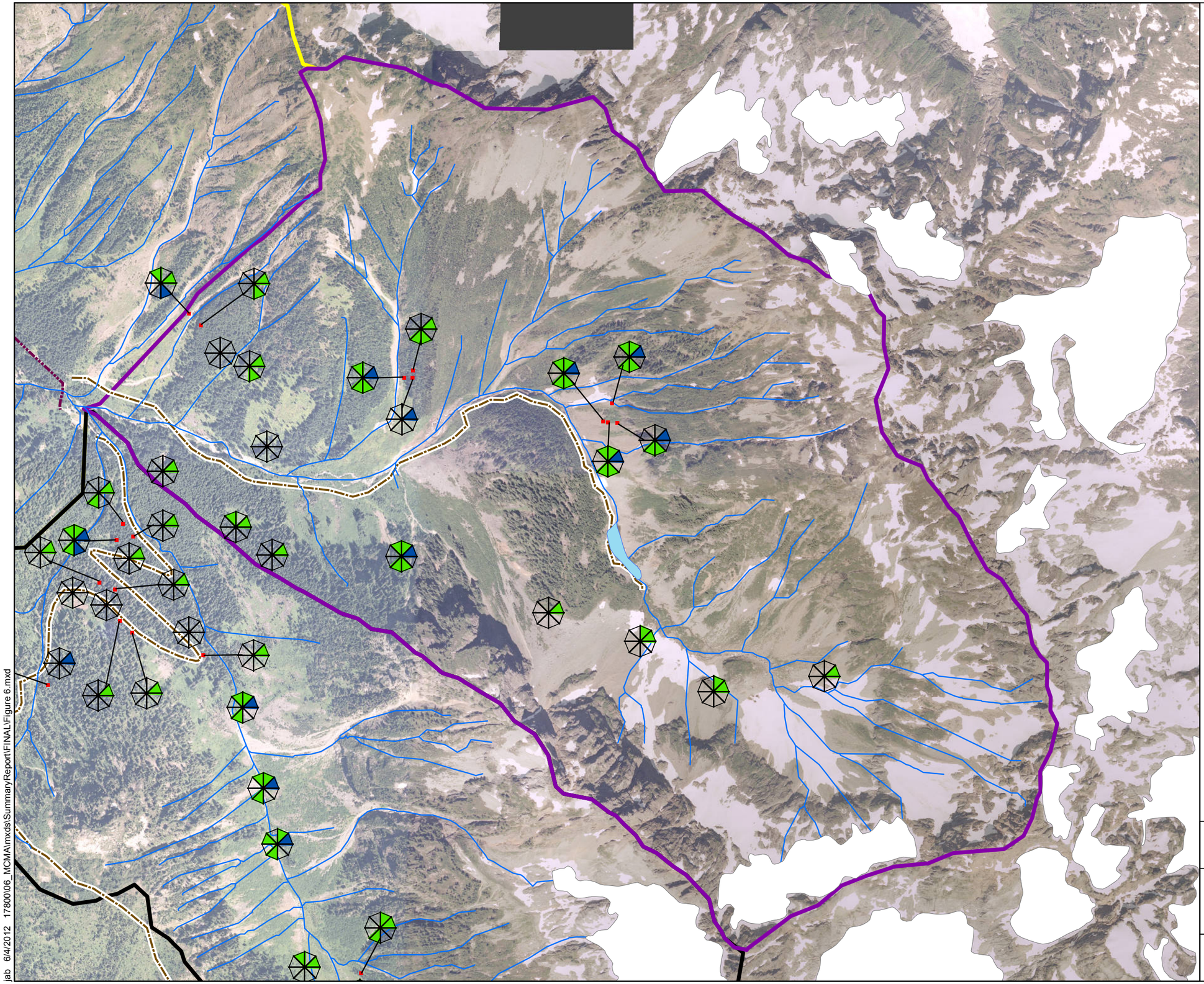
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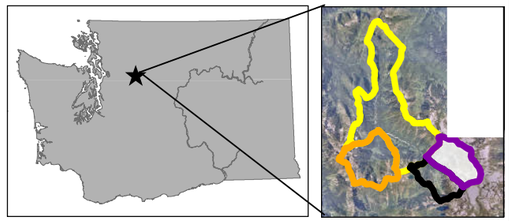
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Figure
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MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 5.mxd

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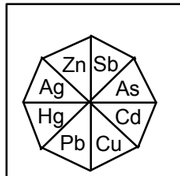
Legend

- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

Background sample concentration exceeds default ecological screening criteria (EISC).



- No data
- No exceedance
- Exceeds the lowest EISC
- Exceeds plant, soil biota and wildlife EISCs

N

1 inch = 1,250 feet

0 0.08 0.16 0.24 0.32 0.4 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Glacier Creek Watershed
Background Sample Exceedances

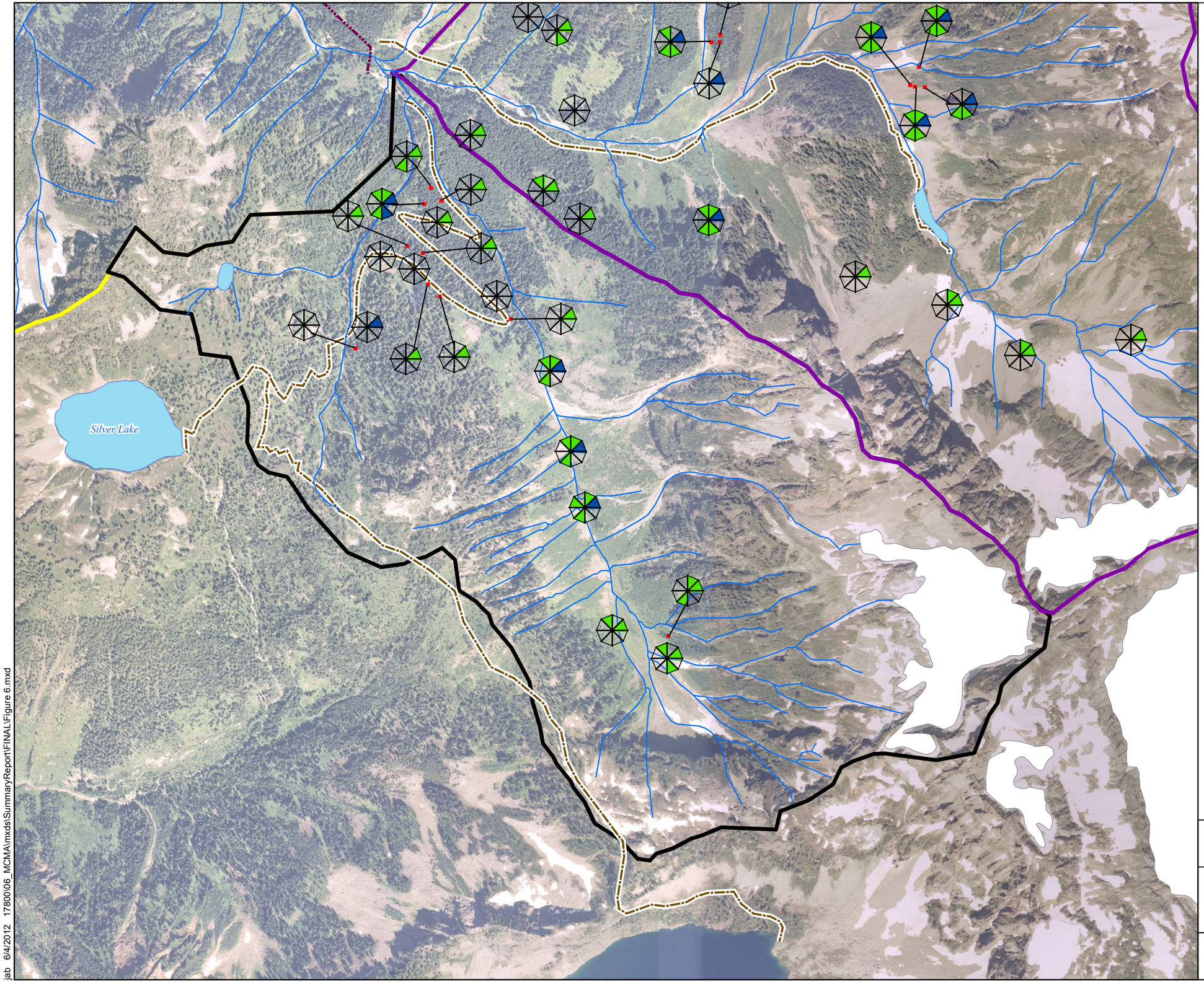
17800-06 5/12

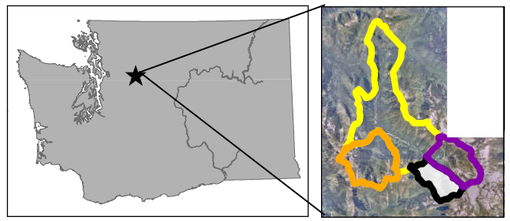
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Figure
6 A

jab 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 6.mxd

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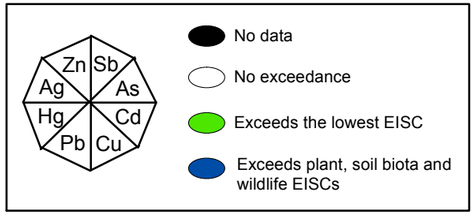
Legend

- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

Background sample concentration exceeds default ecological screening criteria (EISC).



N

1 inch = 1,250 feet

0 0.08 0.16 0.24 0.32 0.4 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Seventysix Gulch Watershed
Background Sample Exceedances

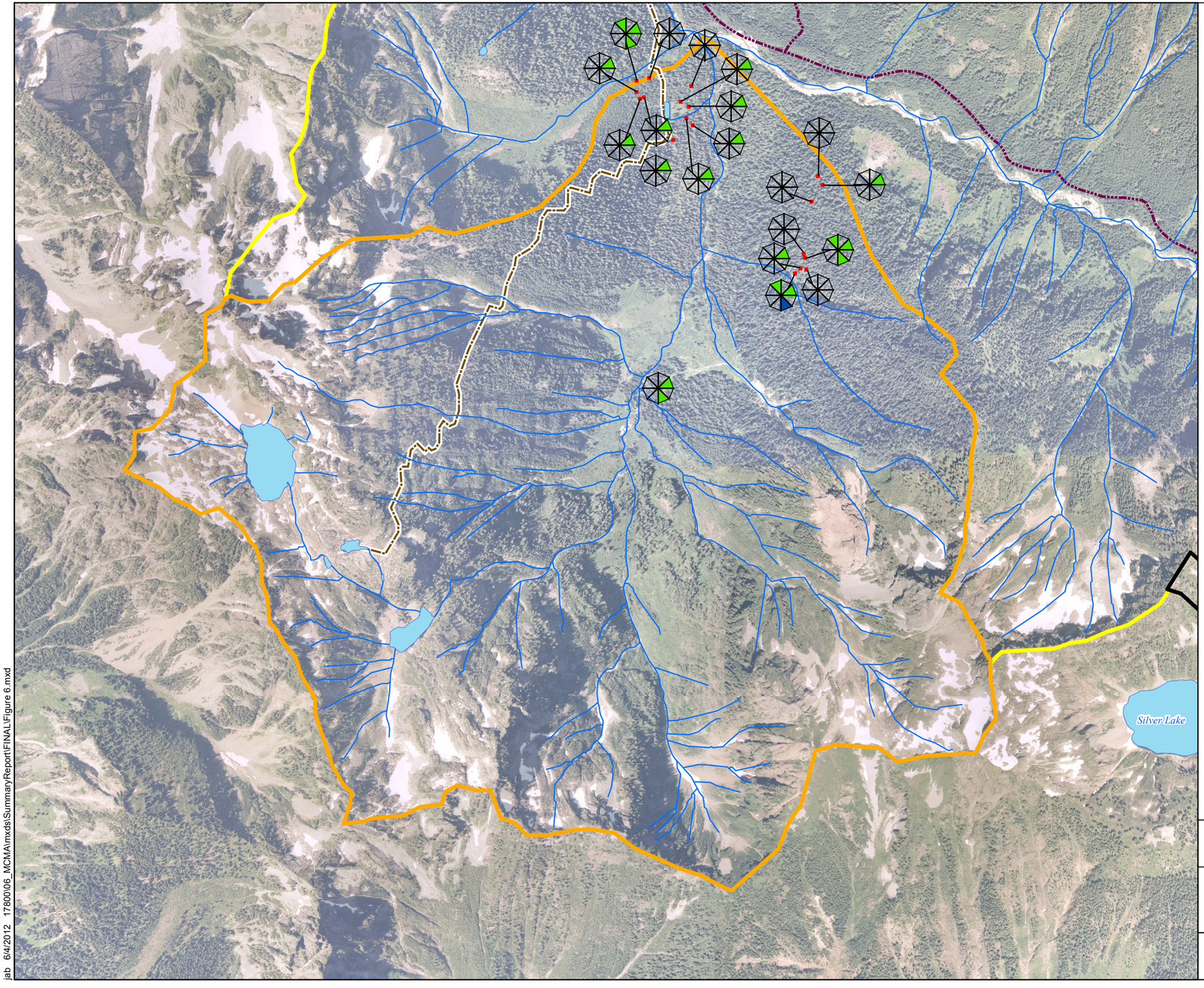
17800-06 5/12

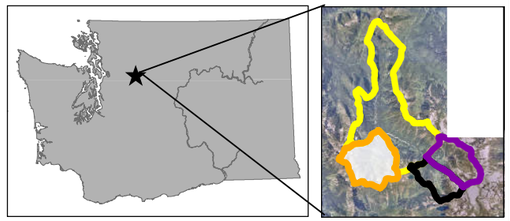
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Figure
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jab 6/4/2012 17800\06_MCMA\mxds\Summary Report\FINAL\Figure 6.mxd

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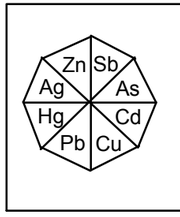
Legend

- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

Background sample concentration exceeds default ecological screening criteria (EISC).



- No data
- No exceedance
- Exceeds the lowest EISC
- Exceeds plant, soil biota and wildlife EISCs

N

1 inch = 1,500 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Weden Creek Watershed
Background Sample Exceedances

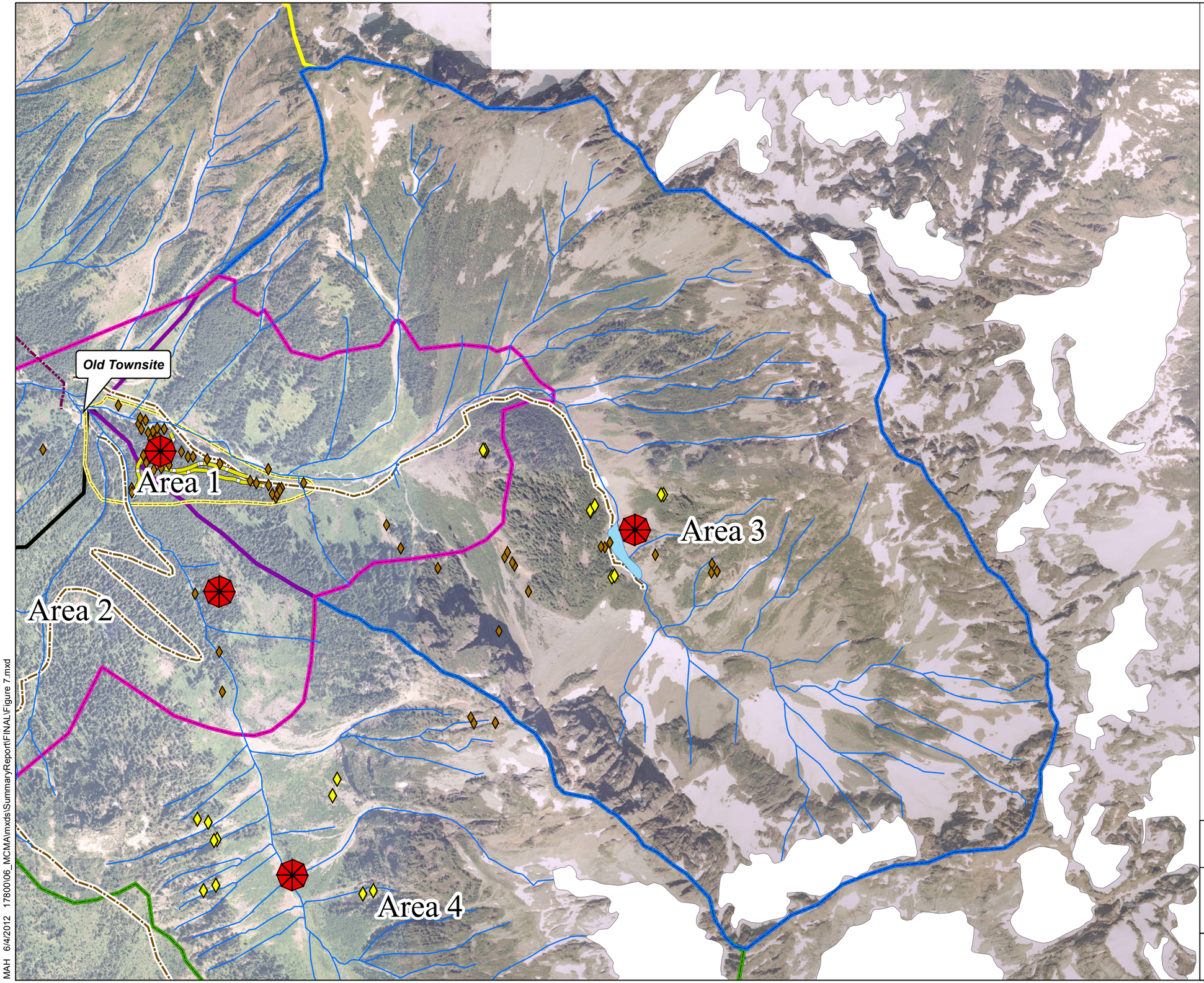
17800-06 5/12

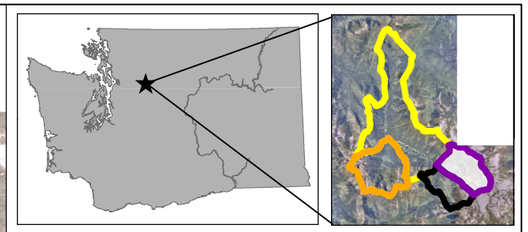
HARTCROWSER

Figure
6 C

jab 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 6.mxd

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Legend

Sampled in 2011

- Mine feature soil sample

Sampled before 2011 by others

- Mine feature soil sample
- Haulage ways

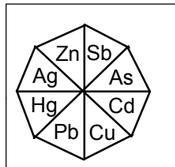
Features

- Roads
- Trails
- Streams
- Lakes
- Ice

Ecological Exposure Area boundaries

- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upper Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

Ecological exposure area exposure point concentration exceeds screening criteria based on all samples collected within each area (see text for calculation procedure).



- No data
- No exceedance
- Exceeds the lowest ARAR
- Exceeds both the lowest ARAR and site-specific background

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Glacier Creek Watershed
Ecological Exposure Area Exceedances

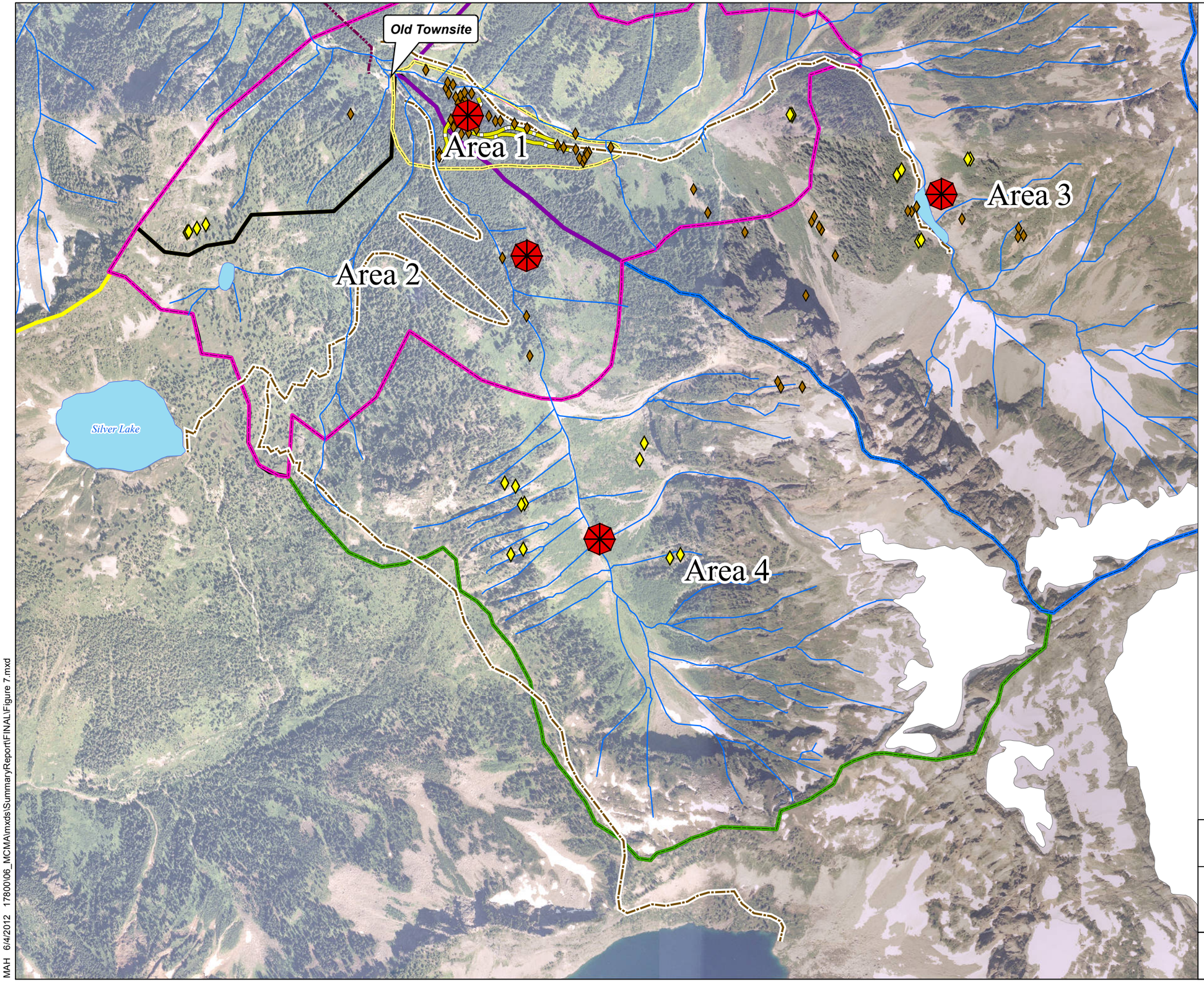
17800-06 5/12

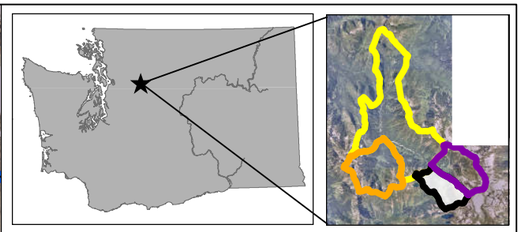
HARTCROWSER

Figure
7A

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 7.mxd

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Legend

Sampled in 2011

- Mine feature soil sample

Sampled before 2011 by others

- Mine feature soil sample
- Haulage ways

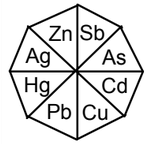
Features

- Roads
- Trails
- Streams
- Lakes
- Ice

Ecological Exposure Area boundaries

- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
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- Area 5 - Weden Creek Watershed

Ecological exposure area exposure point concentration exceeds screening criteria based on all samples collected within each area (see text for calculation procedure).



- No data
- No exceedance
- Exceeds the lowest ARAR
- Exceeds both the lowest ARAR and site-specific background

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Seventysix Gulch Watershed
Ecological Exposure Area Exceedances

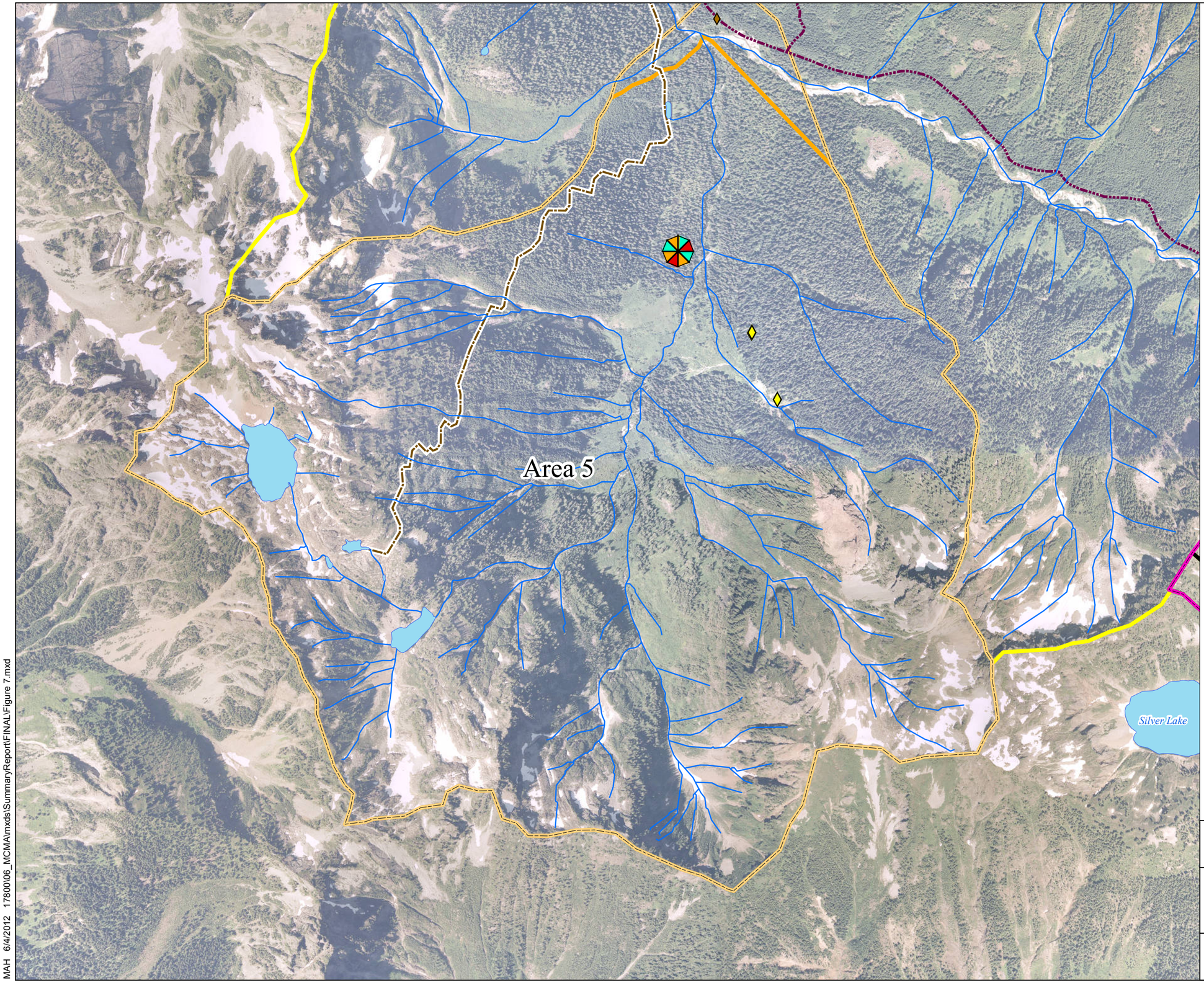
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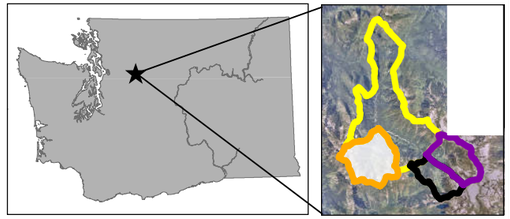
HARTCROWSER

Figure
7B

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReportFINAL\Figure 7.mxd

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Legend

Sampled in 2011

- Mine feature soil sample

Sampled before 2011 by others

- Mine feature soil sample
- Haulage ways

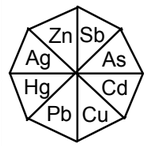
Features

- Roads
- Trails
- Streams
- Lakes
- Ice

Ecological Exposure Area boundaries

- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upper Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

Ecological exposure area exposure point concentration exceeds screening criteria based on all samples collected within each area (see text for calculation procedure).



- No data
- No exceedance
- Exceeds the lowest ARAR
- Exceeds both the lowest ARAR and site-specific background

N

1 inch = 1,500 feet

Miles

0 0.1 0.2 0.3 0.4 0.5

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Weden Creek Watershed
Ecological Exposure Area Exceedances

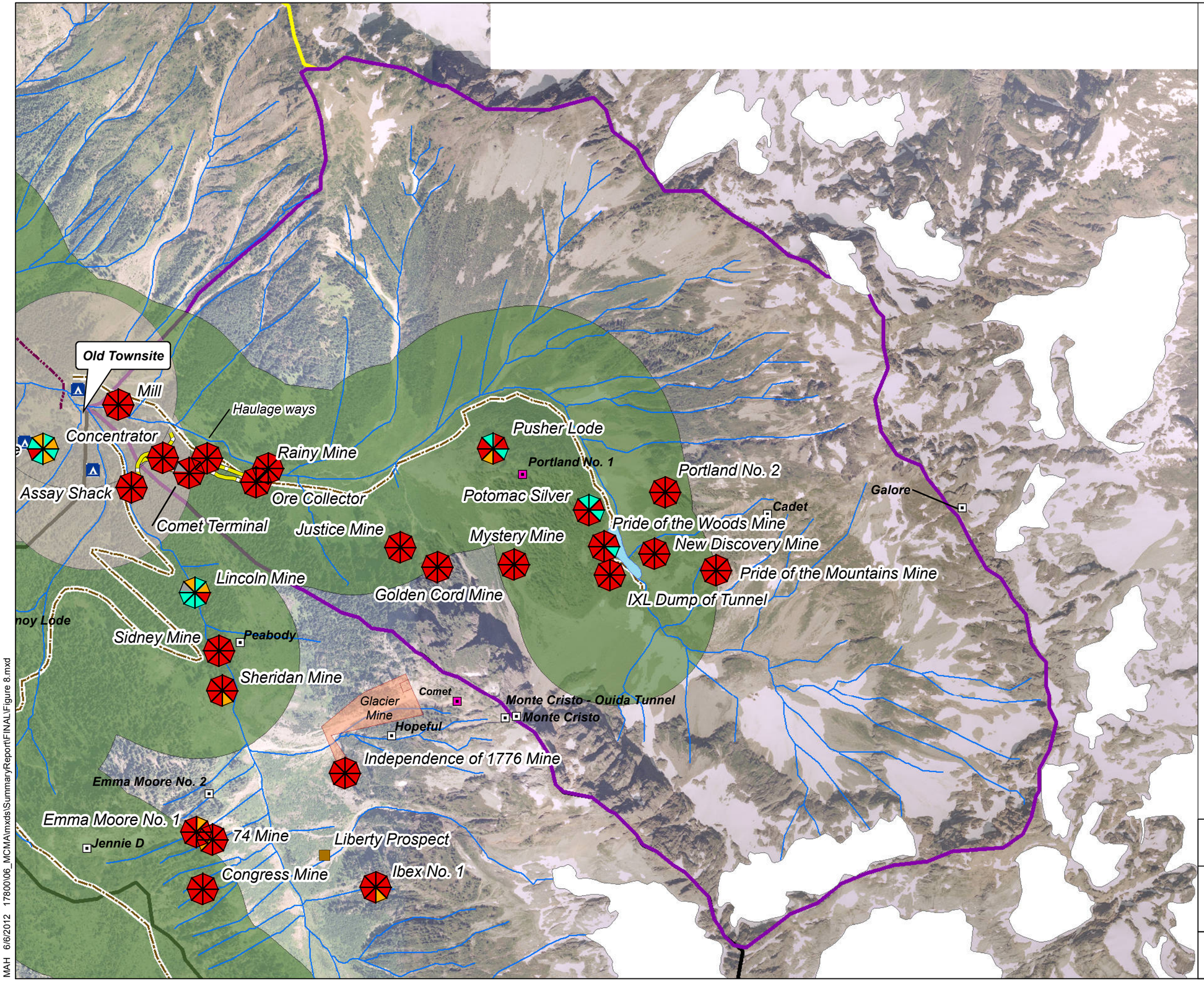
17800-06 5/12

HARTCROWSER

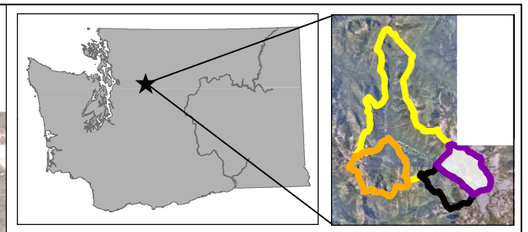
Figure
7C

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 7.mxd

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MAH 6/6/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 8.mxd



Legend

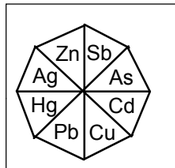
- Reported mine features not looked for in 2011
- Mine feature looked for in 2011 and not found
- Mine features sampled in 2011
- Mine features sampled before 2011
- Patented claim with no mine feature found in 2011
- Haulage ways
- Campground buffer - 1/4 mile
- Trail and road buffer - 1/4 mile

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed



- No data
- No exceedance
- Exceeds the lowest ARAR
- Exceeds both the lowest ARAR and site-specific background

Maximum concentration from each mine feature compared to screening criteria.

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

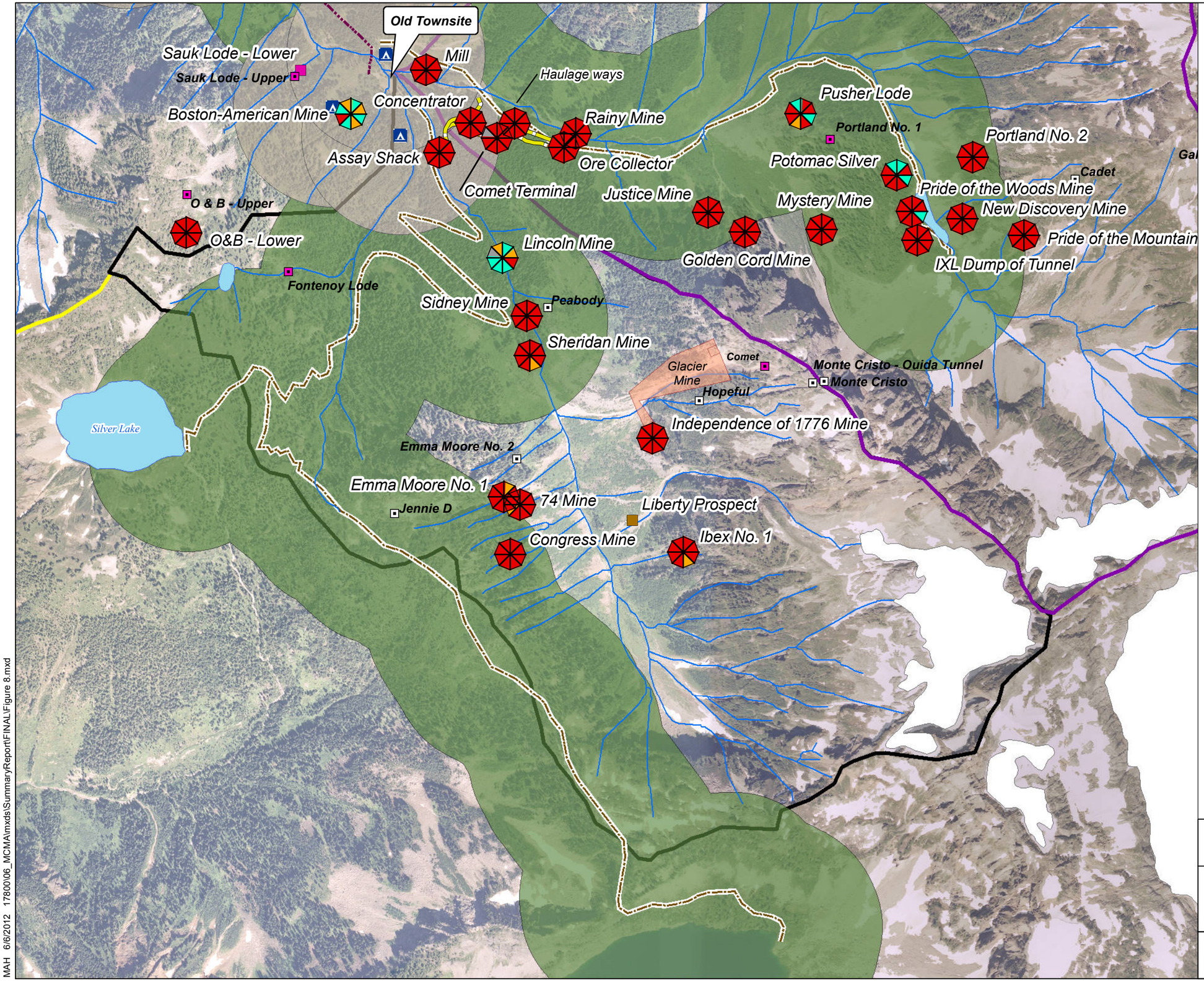
Glacier Creek Watershed
Mine Feature Exceedances

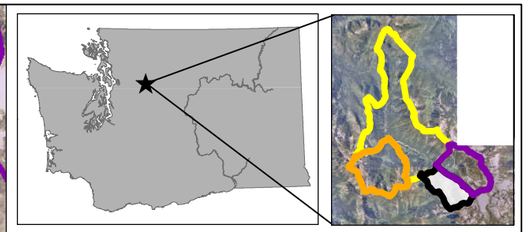
17800-06 5/12

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Figure
8A

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Legend

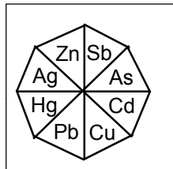
- Reported mine features not looked for in 2011
- Mine feature looked for in 2011 and not found
- Mine features sampled in 2011
- Mine features sampled before 2011
- Patented claim with no mine feature found in 2011
- Haulage ways
- Campground buffer - 1/4 mile
- Trail and road buffer - 1/4 mile

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed



- No data
- No exceedance
- Exceeds the lowest ARAR
- Exceeds both the lowest ARAR and site-specific background

Maximum concentration from each mine feature compared to screening criteria.

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Seventysix Gulch Watershed
Mine Feature Exceedances

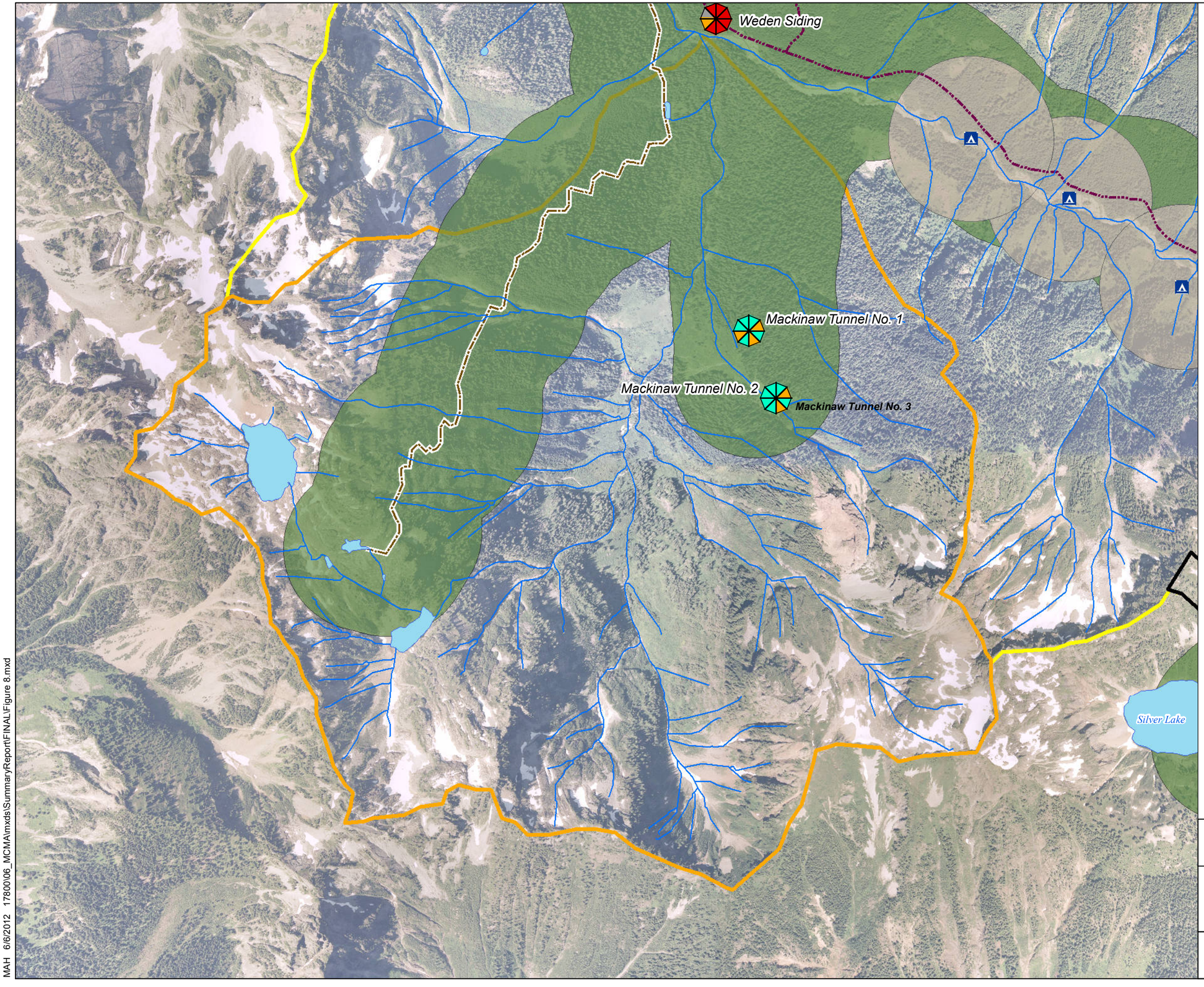
17800-06 5/12

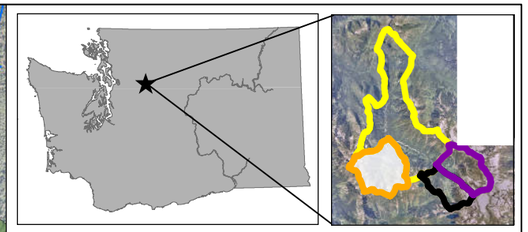
HARTCROWSER

Figure
8B

MAH 6/6/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 8.mxd

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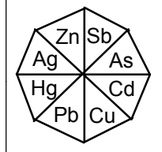
- Reported mine features not looked for in 2011
- Mine feature looked for in 2011 and not found
- Mine features sampled in 2011
- Mine features sampled before 2011
- Patented claim with no mine feature found in 2011
- Haulage ways
- Campground buffer - 1/4 mile
- Trail and road buffer - 1/4 mile

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed



- No data
- No exceedance
- Exceeds the lowest ARAR
- Exceeds both the lowest ARAR and site-specific background

Maximum concentration from each mine feature compared to screening criteria.

N

1 inch = 1,500 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Weden Creek Watershed
Mine Feature Exceedances

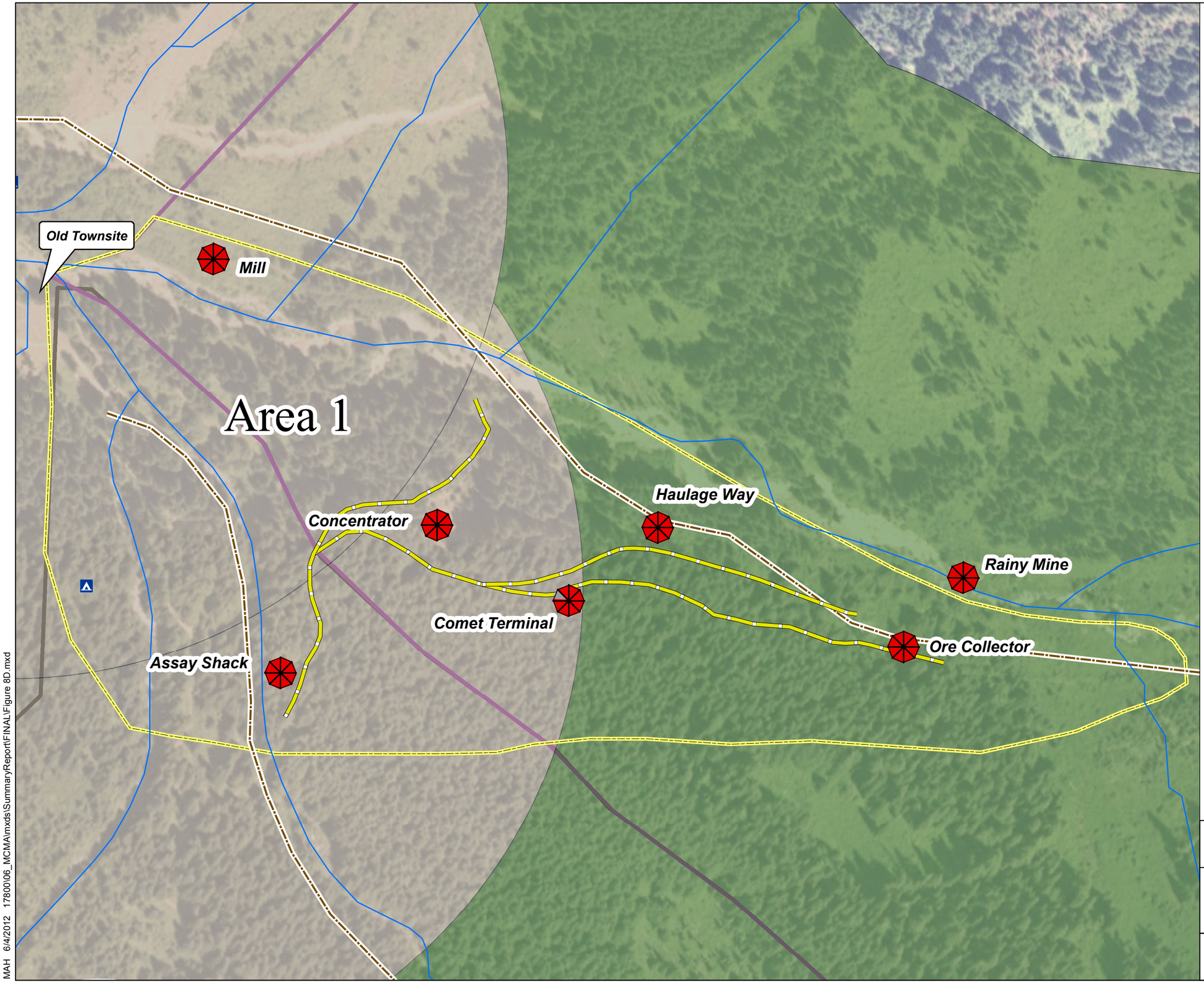
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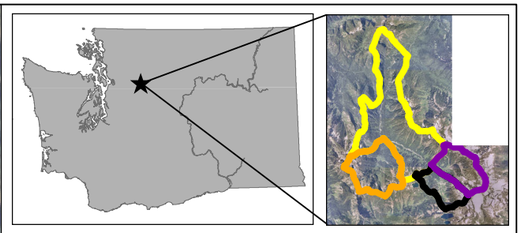
HARTCROWSER

Figure
8C

MAH 6/6/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 8.mxd

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Legend

- Haulage ways
- Campground buffer - 1/4 mile
- Trail and road buffer - 1/4 mile
- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

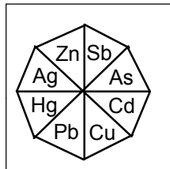
Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

Ecological Exposure Area boundary

- Area 1 - Processing Area

Maximum concentration from each mine feature compared to screening criteria.



- No data
- No exceedance
- Exceeds the lowest ARAR
- Exceeds both the lowest ARAR and site-specific background

N

1 inch = 250 feet

0 0.02 0.04 0.06 0.08 0.1 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Area 1 Inset
Mine Feature Exceedances

17800-06 5/12

HARTCROWSER

Figure
8D

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure 8D.mxd

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APPENDIX A
AML FIELD FORMS AND SITE PHOTOGRAPHS

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CONTENTS

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POTOMAC SILVER

AML Feature Inventory

Feature ID: Potomac Silver

Surveyor(s): PRC

USGS Quad:

Survey Date: 9/26/11

Photos from top of waste rock pile
4085
N
4086 — 4088
4087

Directions to Site (from a main road or landmark appearing on map)

~2 miles up Glacier Basin trail, ~100 yards SW
waste rock pile visible from trail

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical (3. Sloped (if sloped, report approx slope angle)) slope angle: 33 deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☒ adit(s) ☐ pit(s) ☐ other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
Adit	open	4.5x5	Y	10	∩		Adit on SW side of WR-1	N-47.99269 W-121.36581 elev 4425' yellow Garmin

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

9.5
5.5, 15.5

Mining Activity-Related Piles: ☒ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3 (meter)	38	Y	Inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, si silty, v sandy, Gravel	G1:G4 (see below)
WR-1	15.5x7.5x0.5, 33°		Y	Active	<5%	N	N		0.4mm-boulders	moist, light brown, coarse Sandy GRAVEL, trace silt	between Potomac 2&3

5.5 meters from audit to waste rock

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821
Potomac - 1	Face of WR		moist, light brown, coarse sandy GRAVEL	trace silt	compo
Potomac - 2	@ step		wet, d. gray-brown, silty FM SAND		N-47.99272 W-121.36582 (100-4082 photo)
Potomac - 3	base of waste rock		wet, red-brown, silty, fine SAND		N 47.99291 W-121.36557 (100-4084 photo)

Miscellaneous Notes:

A-2

AML Feature Inventory

Feature ID Potomac Silver **Survey Date** 8/26/11

Surveyor(s) PRC

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: NONE ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☒ **Seep(s)** ☐ **Creek(s)** ☐ **Pond(s)** ☐ **Lake(s)**

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479865
~~Audit Seep~~	~~4' downslope of Adit~~	NA	<0.1	Areas of sheen, likely organic, appears platy	

☐ **Soil Staining** ☐ **Seep Staining** None

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985
~~Audit Seep~~	~~4' from Adit 1, downslope~~					

Seasonal Flow Paths or Channels NONE

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

Wetlands NONE

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

AML Feature Inventory

Feature ID: Potomac Silver

Survey Date: 8/26/11

Surveyor(s): PRC

Physical Features / Sources (Continued)

Water Supply Structures: None ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

None

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: None ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☒ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal
~~Sheet~~				
Steel Cable	1		~20' NW of adit	~1" diameter steel cable also scattered broken glass

Other Observations:

Vegetation	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover (Waste rock)	small (2-12" tall conifers)	~17	N	N	
Vegetation groundcover	scattered areas of moss	~5%	N	N	scattered areas of moss on soil and rocks (<5% of waste rock covered)
Evidence of Wildlife or Recent Human Activity	None				

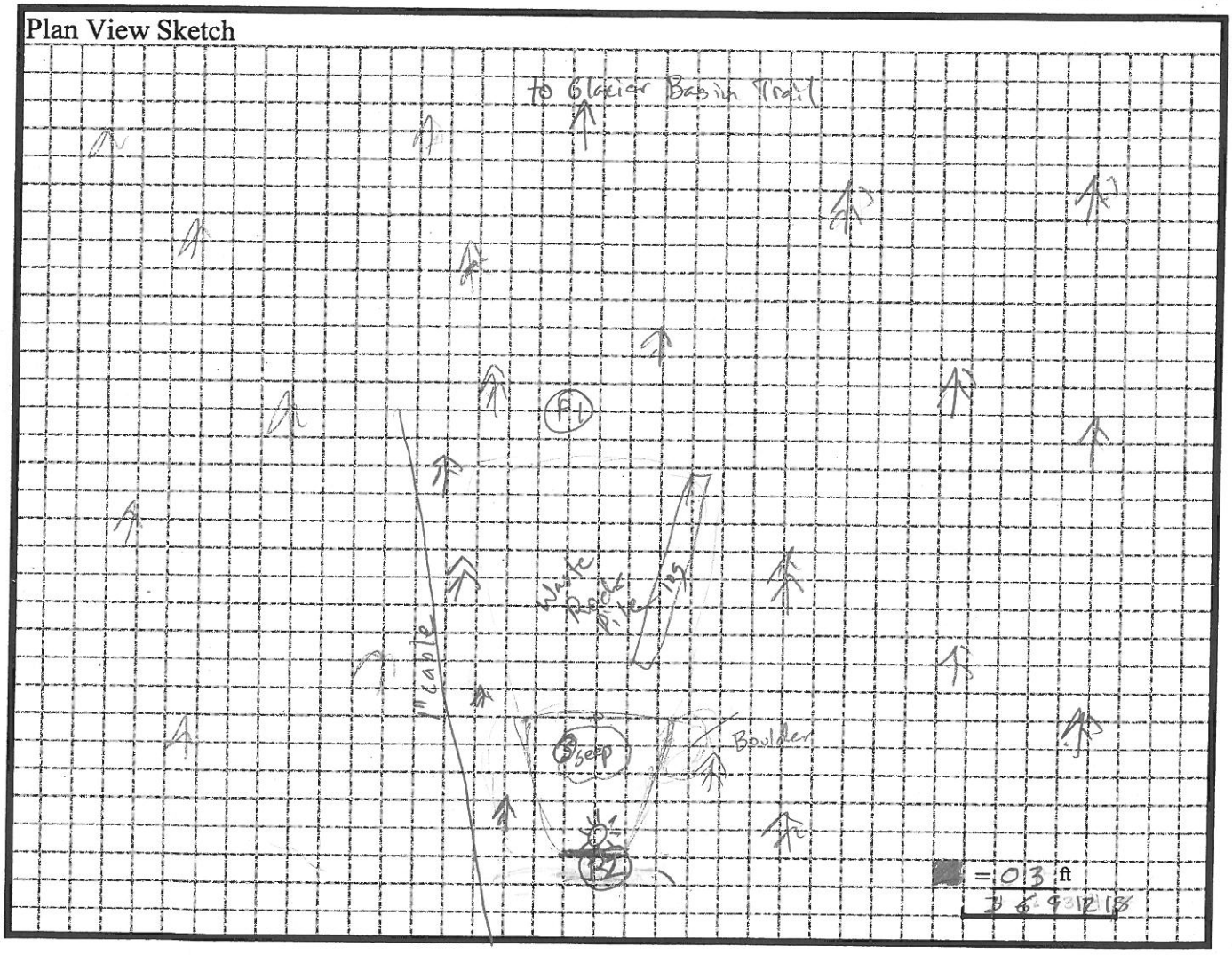
x
33'
50'

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	Potomac Silver
Date	8/26/11
Weather	Clear

N

Plan View Sketch



3.28 ft = 1 meter

Include the following in the field sketch for:

North Arrow ✓
Scale Bar ✓
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water N
- S-# Soil
- T-# Tailings N
- R-# Rock (Waste) 30pt composite
- O-# Ore N
- S-# Other (Describe)

Footprint(s) of:
Mills N
Buildings N
Structures N
Mining-Related Piles Y
Other

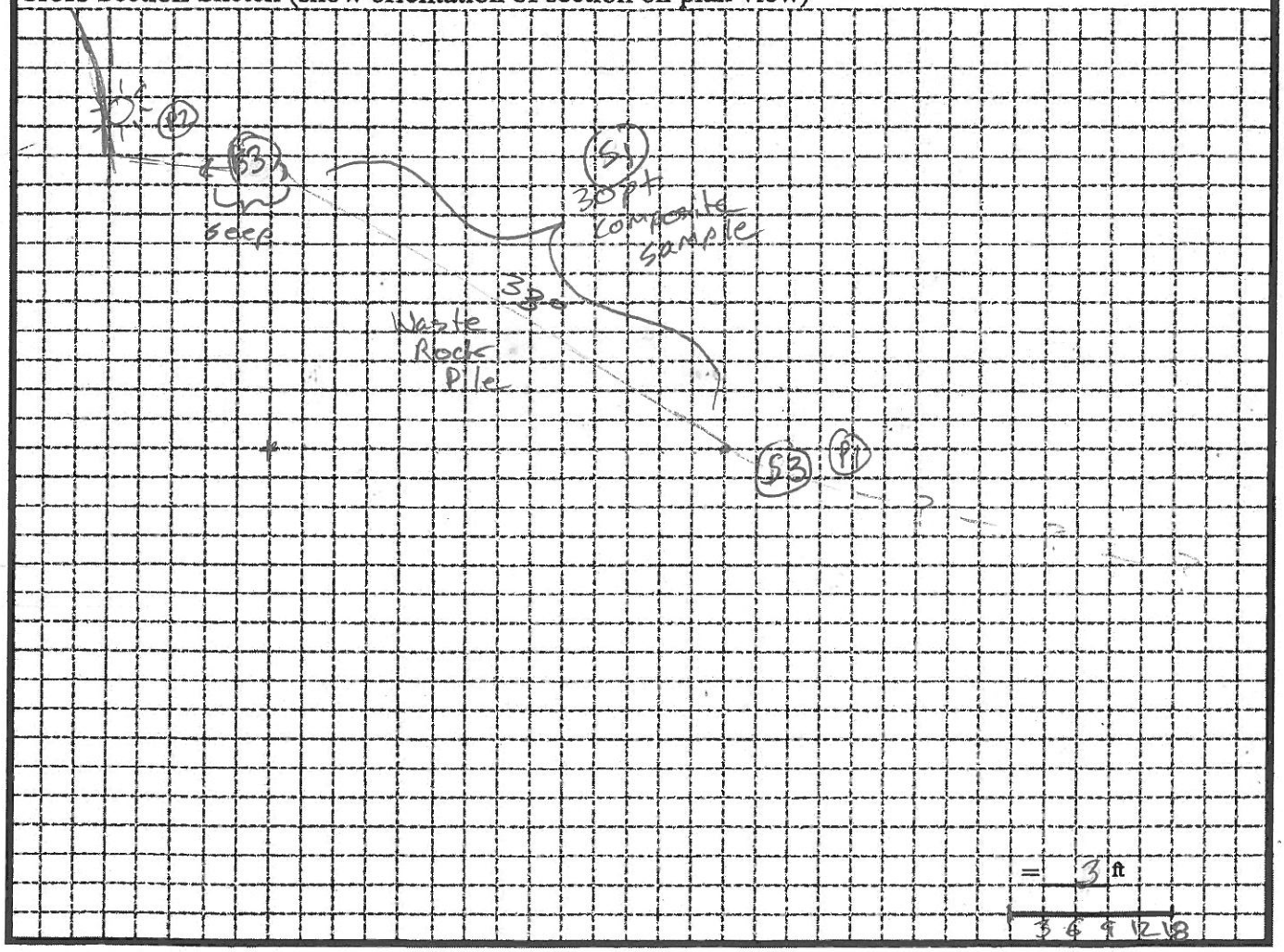
Surface Water (Ponds, Seeps, Etc.) Y
GPS Collection Location ☼ Adit
Elevation (Topographic Variation) 4425' @ adit
Slope Direction NE ~33°

Photos
P1 100-4083 facing SW
P2 100-4077 & 4078 (in to adit)
P3 100-4079 (NE from adit)
P4 100-4080 (NE from top of WR)

Feature ID	Potomac Silver
Date	8/26/11
Weather	Sunny

A A'

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water N
- S-# Soil
- T-# Tailings N
- R-# Rock (Waste) 30pt composite
- O-# Ore N
- S-# Other (Describe)

Location(s) of:
- Mills N
- Buildings N
- Structures N
- Mining-Related Piles Y
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)

Photos
P1 - 4083, facing SW
P2 - 4077 + 4078, facing SW into adit
P3 - 4079, NE away from adit

20 x 20' exposed rock @ adit



Photograph 1 - Facing southwest into Potomac Silver tunnel opening.



Photograph 2 - Facing northeast from the top of the waste rock pile.



Photograph 3 - View of the waste rock pile from the toe of the pile.

IXL MINE

AML Feature Inventory

Feature ID: IXL

Surveyor(s): PRC

USGS Quad:

Survey Date: 8/26/11

Directions to Site (from a main road or landmark appearing on map)

~2.25 miles up glacier basin trail, approximately 100 yards off trail (SW)

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical 3. Sloped (if sloped, report approx slope angle) slope angle: deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☒ adit(s) ☐ pit(s) ☐ other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
adit	open						Adit on NE.	

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☐ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3 approx.	38	Y	Inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, grey, sl silty, v sandy, Gravel	G1:G4 (see below)
WR-1	25'x6'x6'	38	Y	Active	15%, 15%, 45%	N	N		0.4mm - 10"	Wet, dark brown	

Depth 2ft

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821
IXL-1-0-6			- wet dark brown and red brown, sandy, SILT w/ abundant organics		
IXL-1-6-12			- moist, red-brown, silty fine-coarse SAND		
IXL-2-0-6					
IXL-2-6-12					

Miscellaneous Notes:

AML Feature Inventory

Feature ID: IXL

Survey Date: 9/26/11

Surveyor(s): PRC

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

NONE

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☒ Seep(s) ☐ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name		Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1		0.1	None	G3: 1278496, 479865
Seep	base of adit			wet, not flowing	None	

☐ Soil Staining ☐ Seep Staining NONE

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985
NONE		None	NA	~10'		

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985
Wetland	Seasonal	~6'	Adit, Wetland	
	wet, but not flowing			

AML Feature Inventory

Feature ID: IXL

Survey Date: 8/26/11

Surveyor(s): PRC

Physical Features / Sources (Continued)

Water Supply Structures: NONE ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

NONE

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn
scattered pipes ~ 100' downslope, none connecting to adit				

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal
None				

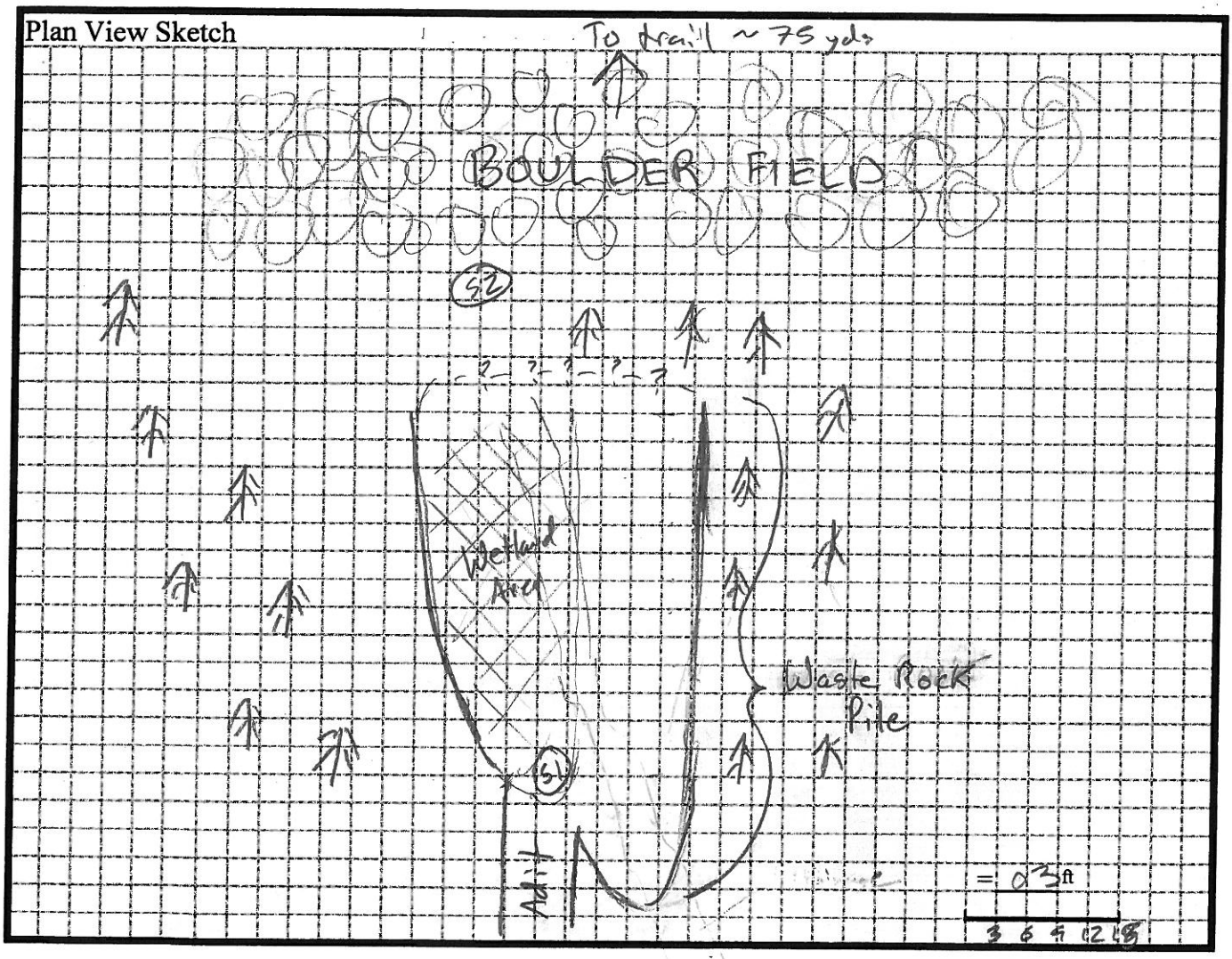
Other Observations:

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover	grass, moss, weeds	75%	None	None	WR very silty w/ abundant vegetation
Vegetation					
Evidence of Wildlife or Recent Human Activity					

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	IXL
Date	8/26/11
Weather	Sunny

Plan View Sketch



Include the following in the field sketch for:

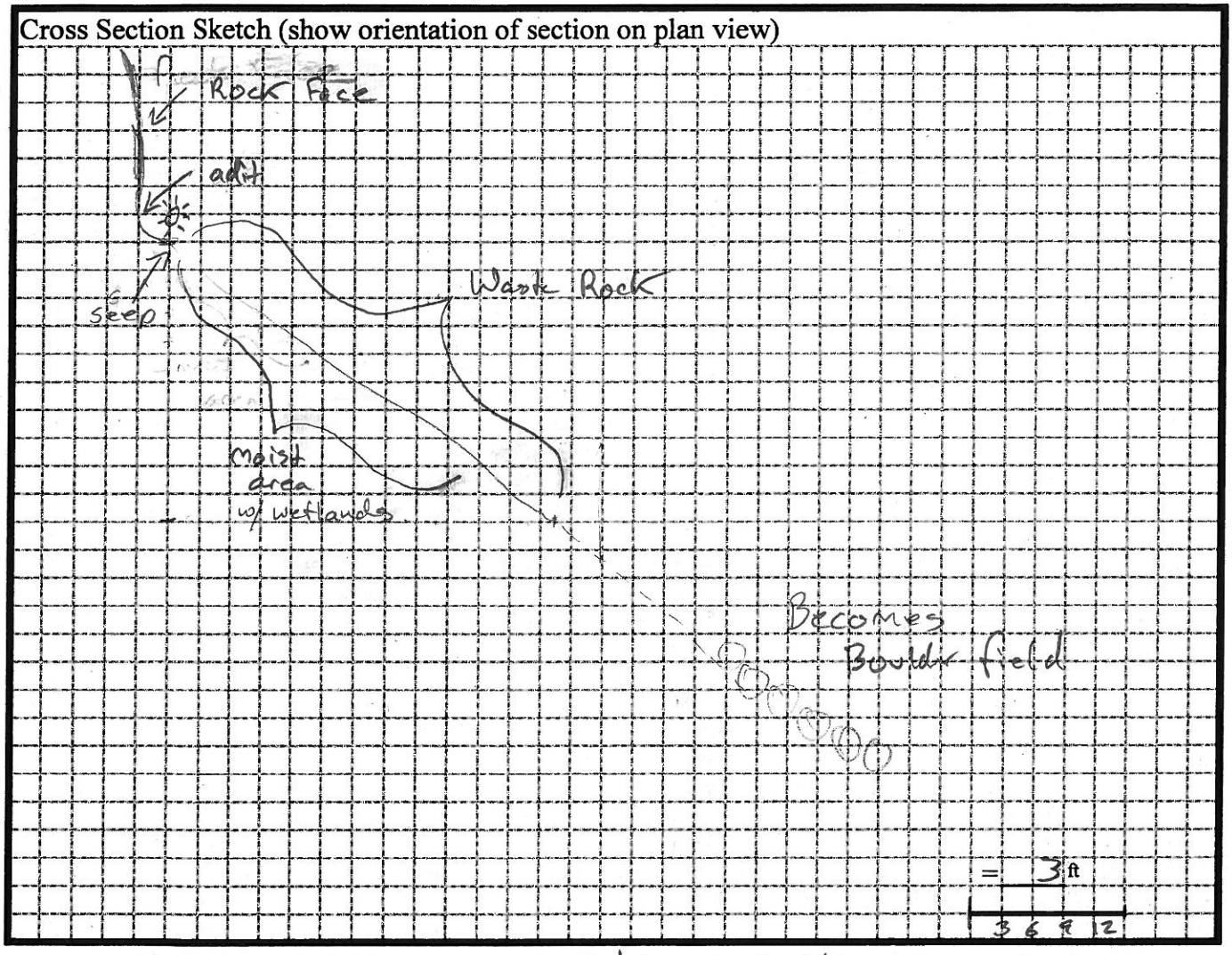
North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

Feature ID	EXL
Date	8/26/11
Weather	Sunny

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water ✓
- S-# Soil ✓
- T-# Tailings none
- R-# Rock (Waste) ✓
- O-# Ore none
- S-# Other (Describe)

Note: scattered waste rock observe in boulder field below

Location(s) of:
- Mills
- Buildings None
- Structures
- Mining-Related Piles ~ 100-150' below waste rock, iron
- Other pipes were observed

Surface Water (Ponds, Seeps, Etc.) ✓
GPS Collection Location ☼ @ adit & base of waste rock
Elevation (Topographic Variation)



Photograph 1 - Facing southwest into IXL tunnel opening.



Photograph 2 - Facing north (downslope) from S1 sample location.



Photograph 3 - Facing south (upslope) from S1 sample location; there appeared to be a small debris slide from above the opening.

PUSHER LODE

yellow Garmin
Trimble 112
Edmonds Lenovera

AML Feature Inventory

Feature ID: Pusher Lake
Surveyor(s): ASK / MAH
USGS Quad:
Survey Date: 9/27/11

Directions to Site (from a main road or landmark appearing on map)

From Glacier Basin trail head upslope in a SE direction across large boulder field once Mustery Mine is in view, tunnel @ top of 1st rock pile in opening of trees @ the base of the cliff face

Terrain Slope (Circle where applicable): 1. Flat (2. Vertical) 3. Sloped (if sloped, report approx slope angle) slope angle: ~~27~~ deg — tunnel at base of cliff

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☐ adit(s) ☐ pit(s) ☒ other (explain) tunnel

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
tunnel ~~adit 1~~	open	~~5x5x45~~ 5x5x45	Y	0	N		tunnel on SE corner of WR pile	

pic 100-3850 3851 looking SE at tunnel
pic 100-3852 looking NW at tunnel

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☒ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in m (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	Inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
WR-1	~~34 mx~~ 69x	34	Y	active	0/1/1	N	N	S1-S3			S1-S3

pic 100-3853 looking N, straight downslope

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Sieved?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821
Pusher S1 0-6 ~~6-12~~	NE edge of WR pile	Pusher S1	(loose - med dense) damp - moist brown, gravelly sandy SILT w/ wood debris		N47.98484 W121.37156 3604 ft
Pusher S1 6-12	"	"	"		"
Pusher S2 0-6 6-12	middle of staining on WR	Pusher S2	(loose) moist, reddish brown, v. gravelly sand w SILT		Pusher S2 N47.98487 W121.37157 3604 ft
Pusher S3 0-6 6-12	toe of WR pile (N edge)	Pusher S3	(loose - m dense) damp sl. reddish brown gravelly sandy SILT		Pusher S3 N47.98487 W121.37167 3604 ft.
			(loose - m dense) moist - wet, gray brown, sl. sandy SILT		

Miscellaneous Notes:

S3 pit - several rocks w/ sheen (possibly organic)

Sample pictures - 0-6 in, N, E, S, W

S1 ~~0-6~~ - 100-3832 - 3837
S2 - 100-3838 - 100-3843
S3 - 100-3844 - 100-3849

AML Feature Inventory

Feature ID

Survey Date

Surveyor(s)

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☐ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479865

☒ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985
S2	Soil on WR pile	orange/brown	¼ mile upslope of Glacier Basin			

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

AML Feature Inventory

Feature ID

Surveyor(s)

Survey Date

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☒ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☒ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal

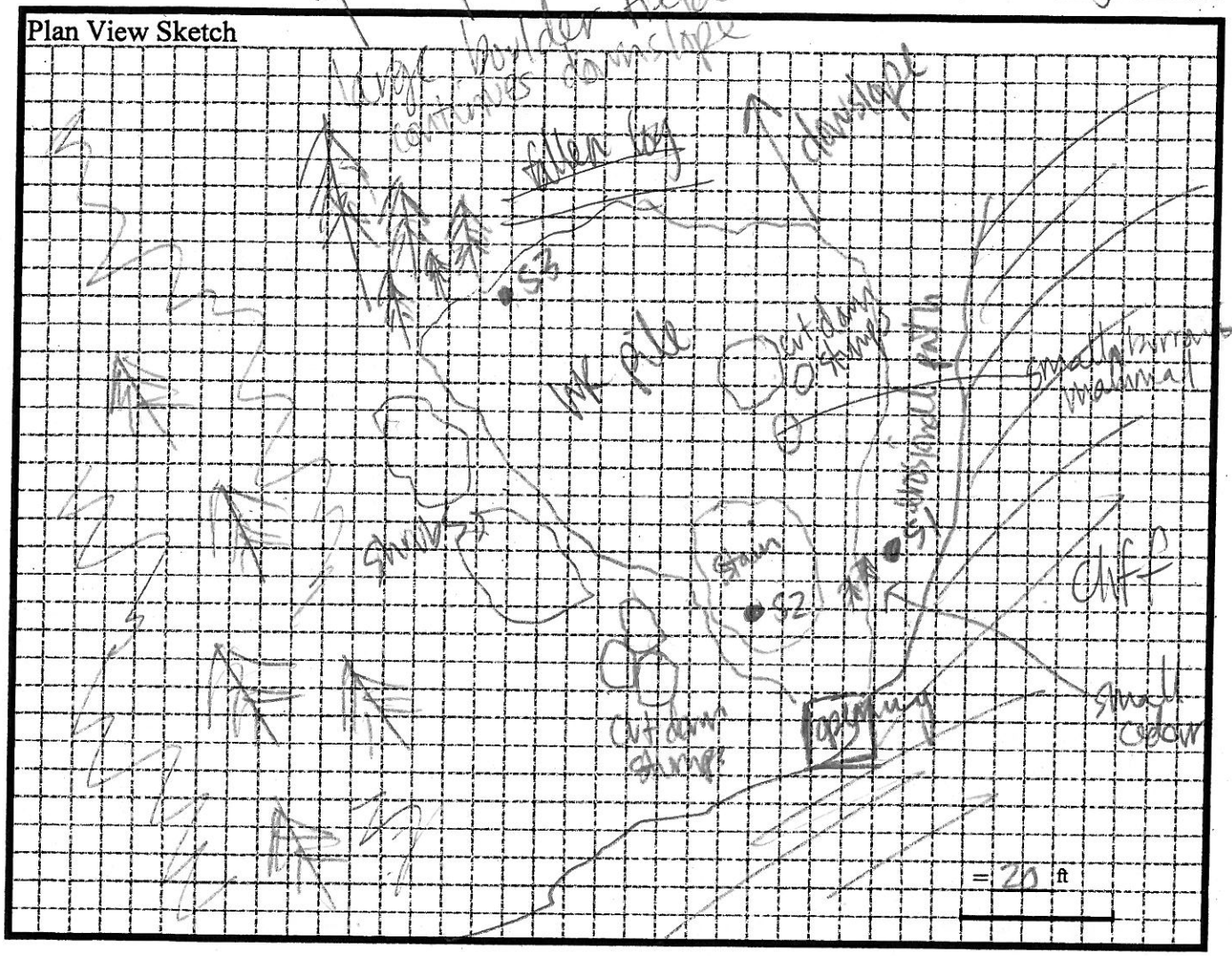
Other Observations: TEE

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover					
Vegetation					
Evidence of Wildlife or Recent Human Activity					

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	Rusher
Date	9/27/11
Weather	OC, rainy, ~46°F

Plan View Sketch



Include the following in the field sketch for:

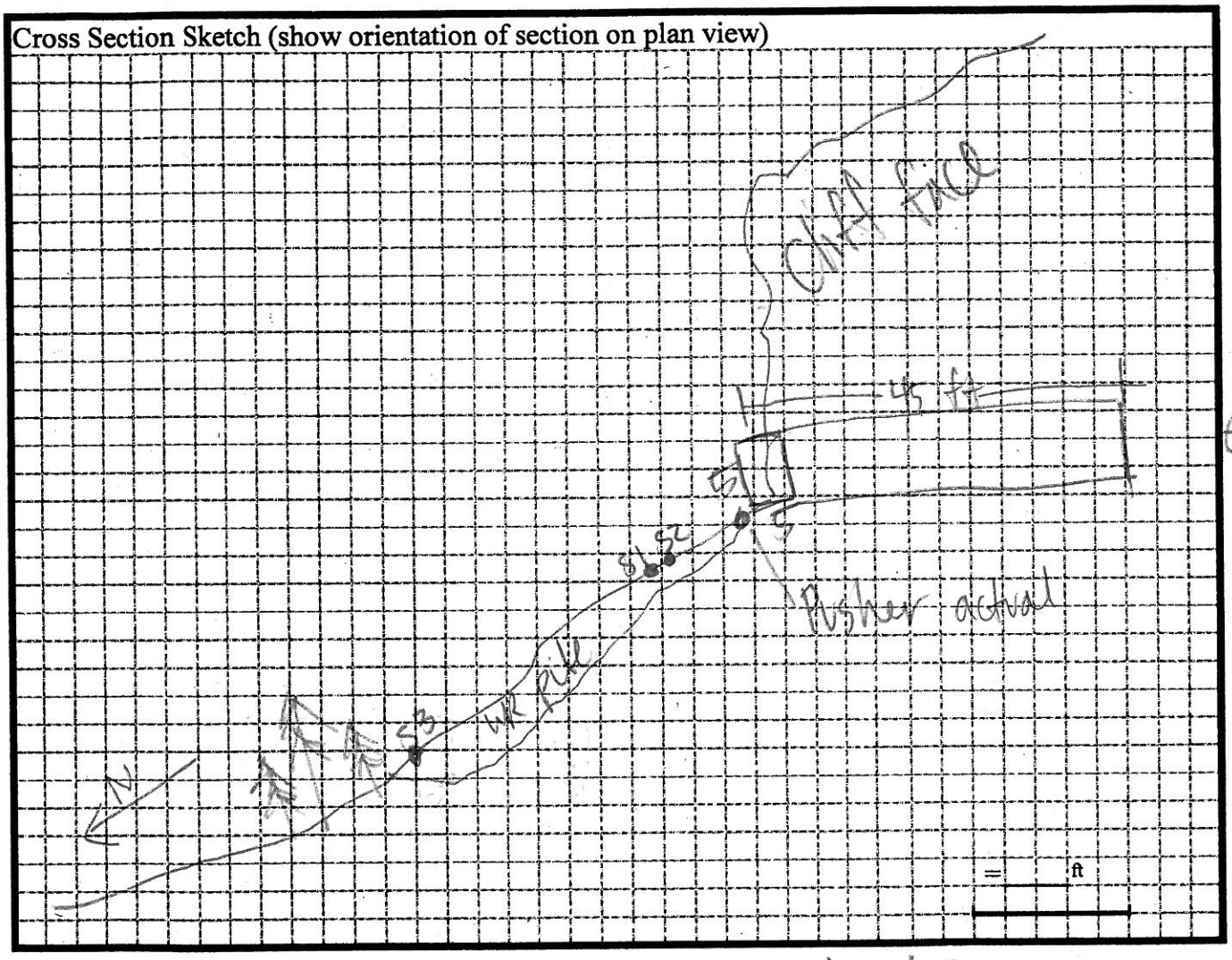
North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

Feature ID	Pusher
Date	9/27/11
Weather	

Cross Section Sketch (show orientation of section on plan view)



tunnel cut in East

Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - Facing east into the Pusher Lode tunnel opening; approximately 4 to 6 inches of standing water inside tunnel.



Photograph 2 - View from the top of the waste rock pile looking west-northwest.



Photograph 3 - Sampling pit (S2) in the middle of the staining in the upper portion of the waste rock pile.

PORTLAND NO. 2

AML Feature Inventory

Feature ID: Portland No. 2
Surveyor(s): ASK/MAH
USGS Quad:
Survey Date: 9/29/11

Directions to Site (from a main road or landmark appearing on map)

Take the Glacier Basin trail up past the falls to where the talus slopes start on the opposite slope. Continue along trail until you reach the Potomac Silver mine. Scramble down the boulder field, across the valley bottom & up the boulders

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical 3. Sloped (if sloped, report approx slope angle) slope angle: 40 deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☐ adit(s) ☐ pit(s) ☒ other (explain) tunnel

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
tunnel	collapsed	4x6x ?	Y	slow drip	N		tunnel opening on N corner of WR pile	portland2 actual N 47.98339 W121.36171 4648 ft

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☒ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, si silty, v sandy, Gravel	G1:G4 (see below)
WR	63x21x2	38	Y	active	0/10/5	N	N old debris	S1 - S2			S1 - S2

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1		Y, ASTM #10	G7: 1278965, 4796821
1405 Portland 2 S1 0-6	NE edge of WR pile, top	S1	(loose - med dense) damp - moist, brown - d. brown, v. gravelly, sandy SILT		S1
1415 Portland 2 S1 6-12	" " "	"	"		"
1445 Portland 2 S2 0-6	South edge of WR pile, bottom	S2	(loose - m. dense), wet, d. brown, v. gravelly Sandy SILT		S2
1500 Portland 2 S2 6-12	" "	S2			

Miscellaneous Notes:

debris: broken glass on pile
↳ old cable and pipe

AML Feature Inventory

Feature ID: _____ Survey Date: _____

Surveyor(s): _____

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☐ Creek(s) ☐ Pond(s) ☒ Lake(s)

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479865

☐ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

AML Feature Inventory

Feature ID

Survey Date

Surveyor(s)

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal

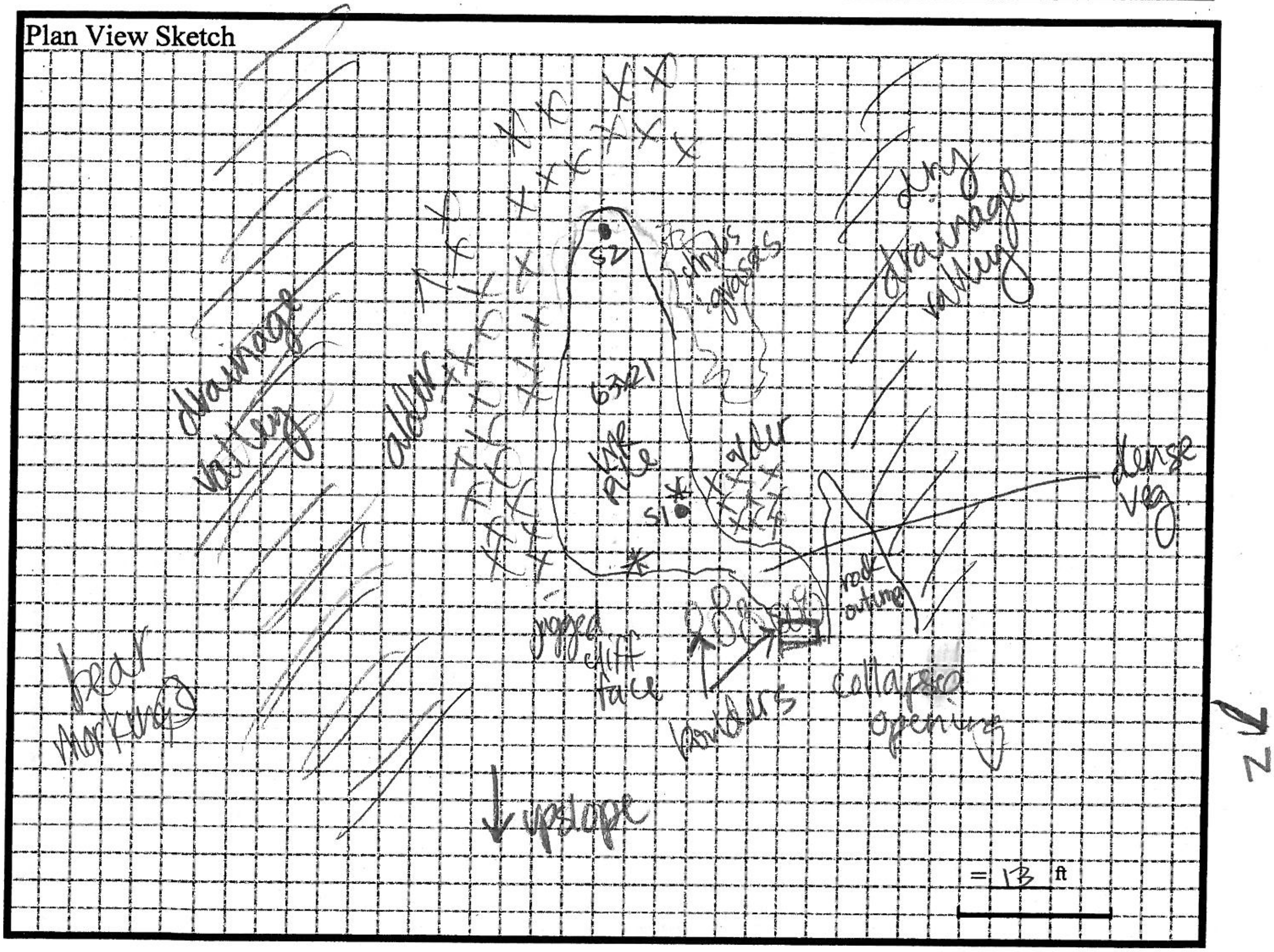
Other Observations:

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover					
Vegetation					
Evidence of Wildlife or Recent Human Activity					

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID Portland 2
Date 9/29/11
Weather sunny, warm

Plan View Sketch



Include the following in the field sketch for:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

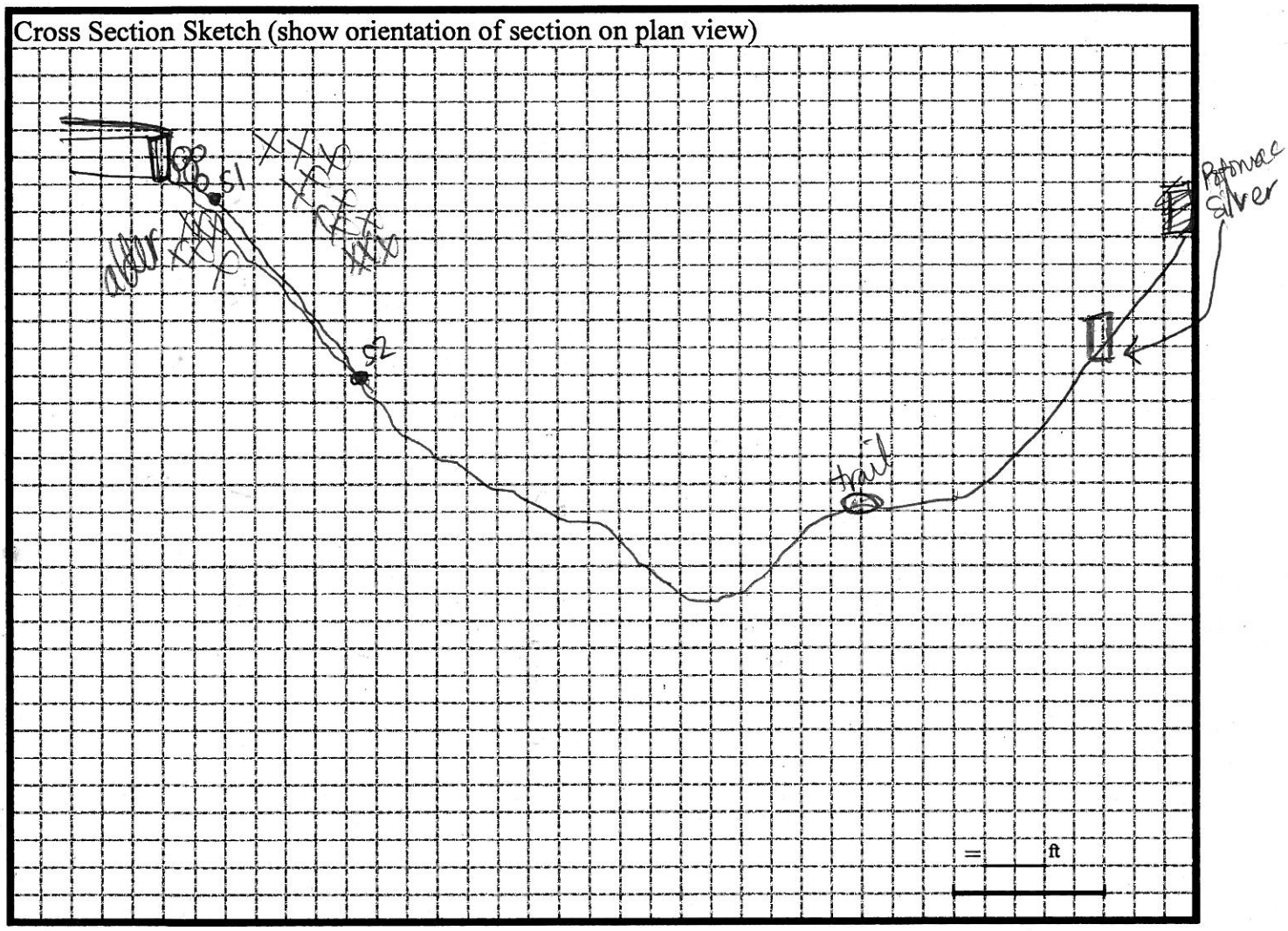
Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

pile is 63'L X 21'W

Feature ID	_____
Date	_____
Weather	_____

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - Facing east-northeast, partially collapsed Portland No. 2 tunnel opening.



Photograph 2 - Facing southwest (downslope), waste rock pile for Portland No. 2.



Photograph 3 - View of waste rock pile from the toe of the pile.

INDEPENDENCE OF 1776 MINE (76 MINE)

AML Feature Inventory

Feature ID: 76 Mine

Surveyor(s): Abercrombie, McDonald

USGS Quad:

Survey Date: 9-13-11

Directions to Site (from a main road or landmark appearing on map)

Follow 76 Creek, across from cabin of Emma Moore

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical (3. Sloped (if sloped, report approx slope angle)) slope angle: 50 deg

Physical Features / Sources

Mine Openings: (1) shaft(s) ☐ adit(s) ☐ pit(s) ☐ other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
	OPEN w/ flowing WATER	5X4'	Y	2-3 cfs	n	P1 OPENING P2-4	SHAFT OPENING ON WEST SIDE of WINGANS PEAK	N 47. 97284 W 121. 37915

GRAY GARMIN e1,395'
C-PANASONIC CAMERA

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☒ waste rock pile(s) ☒ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
TAILINGS (1)	40 x 60'	50	N	INACTIVE	NONE	N	NONE		0.5-6"	DARK BROWN, SILTY SANDY	N47.97384 W121.37885

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965. 4796821
76 MINE S1	West of OPENING	76 MINE S1	WET, DARK BROWN, SILTY SANDY GRAVEL		N 47. 97284 W 121. 37885 16:40
76 MINE S2	TOE of TAILINGS 0-6"	76 MINE S2	DAMP, LIGHT BROWN, SILTY, VERY GRAVEL		N 47. 97283 W 121. 37939 17: 30
S3	6-12"	" " S3	" COARSE → FINE SAND		" 19=40

Miscellaneous Notes:

AML Feature Inventory

Feature ID: 76 MINE

Survey Date: 9-13-11

Surveyor(s): AVERCROMBIE, McDONALD

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☒ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name		Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1		0.1	None	G3: 1278496, 479865
UNNAMED	EXITING MINE	S1		1-3 cfs	NONE	N47.97284 W121.37857

☐ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985
UNNAMED	Y	S1	2-3 cfs	EXITING MINE	NONE?	N47.97284 W121.37857

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985
UNNAMED	2-3 cfs	<0.5'	NONE?	

AML Feature Inventory

Feature ID: 76 MINE

Survey Date: 9-13-11

Surveyor(s): ABERCROMBIE, McDONALD

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal

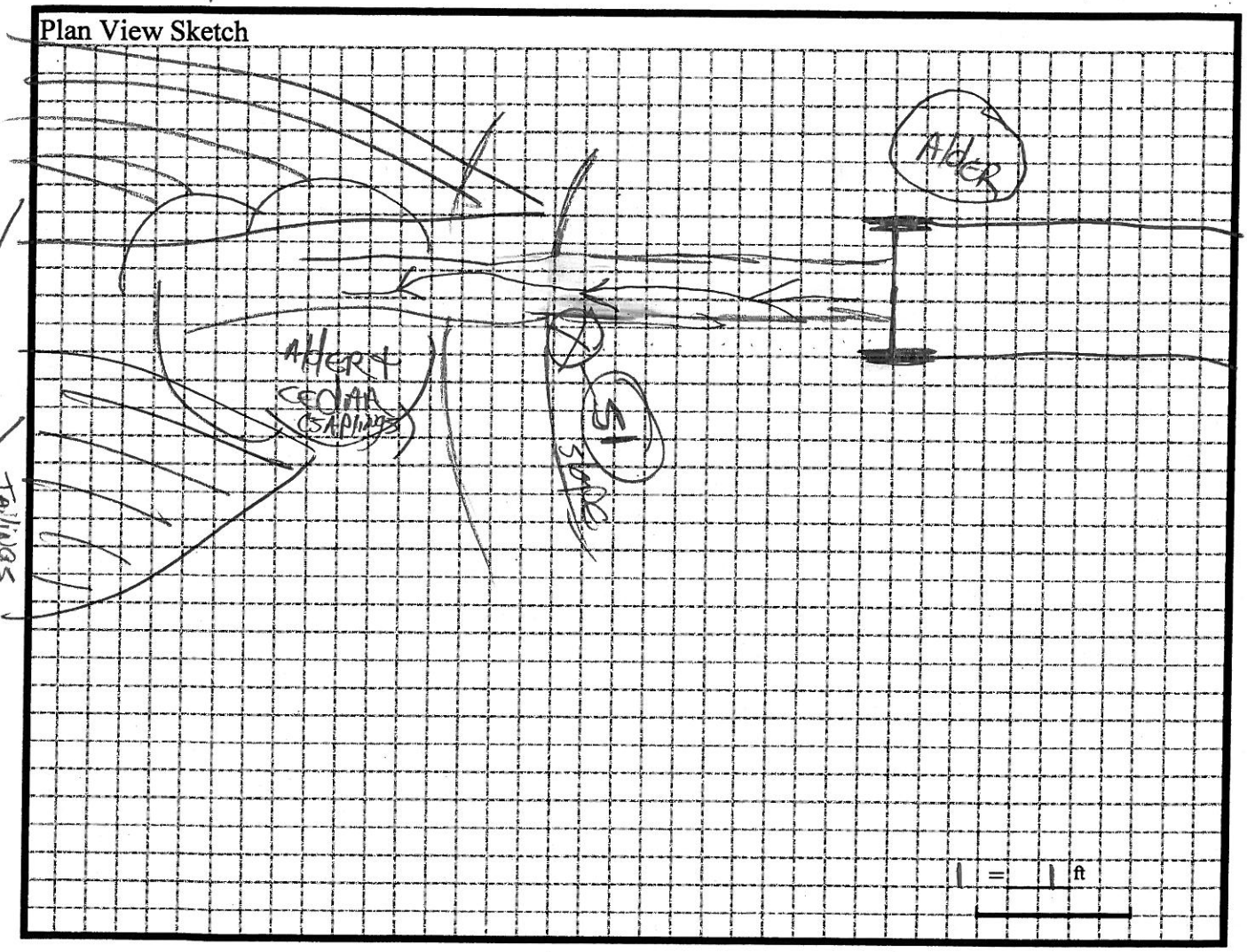
Other Observations:

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover	EMERGENT	~1000's	N	N	
Vegetation	ALDER	Lots	N	N	EMERGENT, SHRUB (ALDER)
Evidence of Wildlife or Recent Human Activity	NONE	—	N	N	

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	76 Mine
Date	9-13-11
Weather	Sunny

Plan View Sketch



Include the following in the field sketch for:

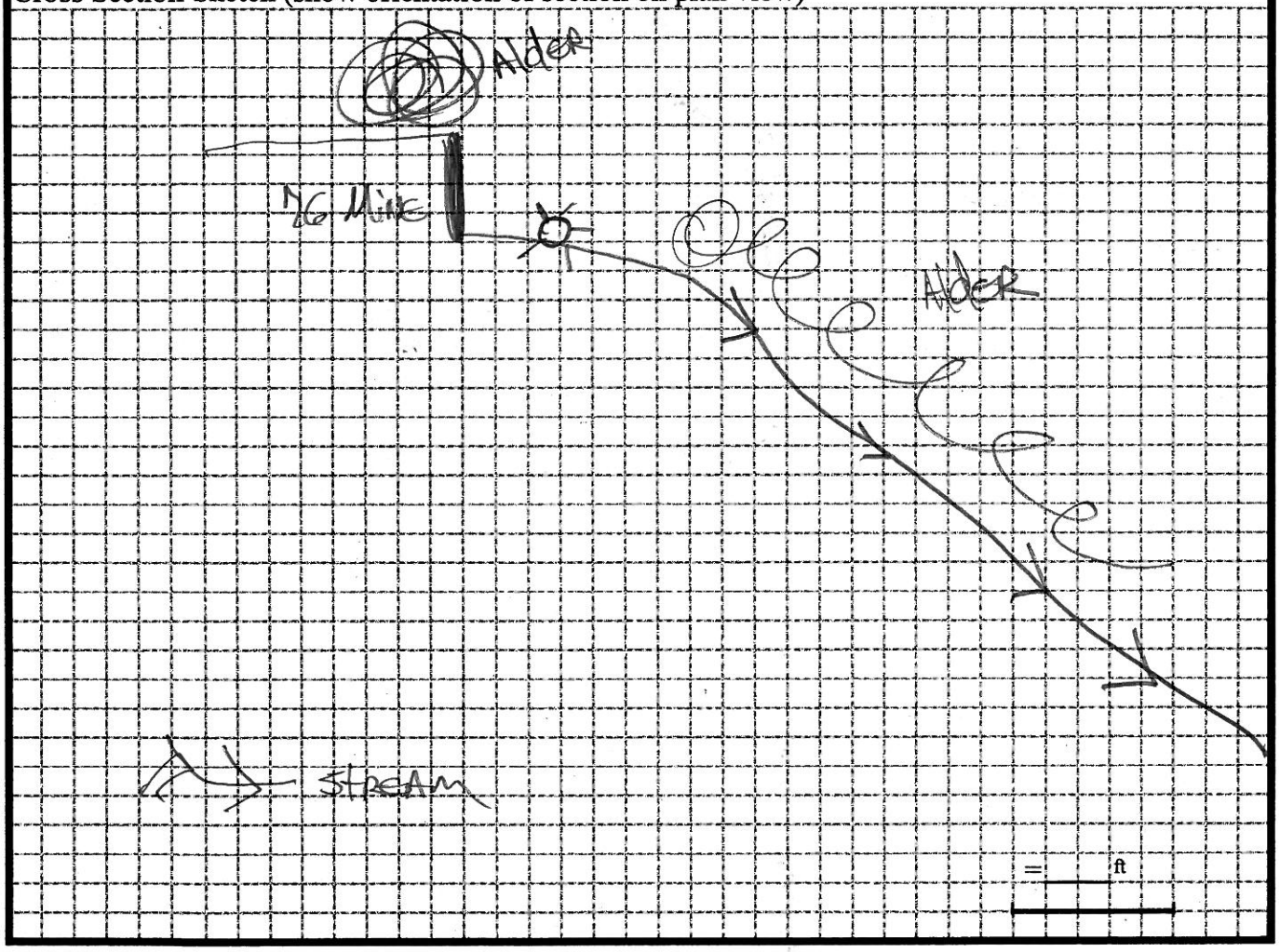
North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

Feature ID	26 MINE
Date	9-13-11
Weather	SUNNY

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - Facing east into tunnel opening; approximately 2 to 3 inches of standing water in the tunnel.



Photograph 2 - Facing southwest (downslope) from the top of the waste rock pile.



Photograph 3 - View from the S2 sample location near the toe of the waste rock pile, facing east-northeast.

EMMA MOORE NO. 1

AML Feature Inventory

Feature ID: EMMA MOORE 2
Surveyor(s): ATKEDCRAMBIE, McDONALD
USGS Quad:
Survey Date: 9-15-11

Directions to Site (from a main road or landmark appearing on map)

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical (3. Sloped) (If sloped, report approx slope angle) slope angle: 40-45 deg

Physical Features / Sources

Mine Openings: [X] shaft(s) [ ] adit(s) [ ] pit(s) [ ] other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
	OPEN	5X4	Y	NONE	NONE	P1-5	MINE OPENING	

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: [ ] waste rock pile(s) [X] tailings pile(s) [ ] ore / leach pile(s) [ ] debris pile(s) [ ] other (explain)

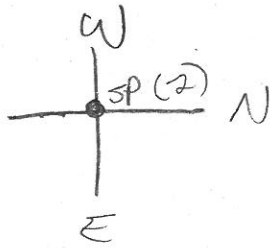
Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	Inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, si silty, v sandy, Gravel	G1:G4 (see below)
TAILINGS (1)	60 X 20	45	N	—	20 / 0 / 10	N	NONE	S2 (0-6")	<0.5-3"	damp, light brown, silty SAND	N 47.97121 W121.38631 13:30
	" "	45	N	—	" "	N	NONE	S3 (6-12")	" "	" "	" " 13:30

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821
EMMA 2 - S1	DOWNSLOPE OF OPEN	GEOXH	MOIST, LIGHT BROWN, SILTY, SAND		N 47.97132 W121.38696 13:00 El. 4084'

Miscellaneous Notes:

Photos (PANASONIC) 5



N

AML Feature Inventory

Feature ID: _____ Survey Date: _____

Surveyor(s): _____

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP-1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☐ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name		Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1		0.1	None	G3: 1278496, 479885

☐ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985
CHANNEL (UNNAMED)	N	—	—	disch. to 76	NONE.	—

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

AML Feature Inventory

Feature ID _____ Survey Date _____

Surveyor(s) _____

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal

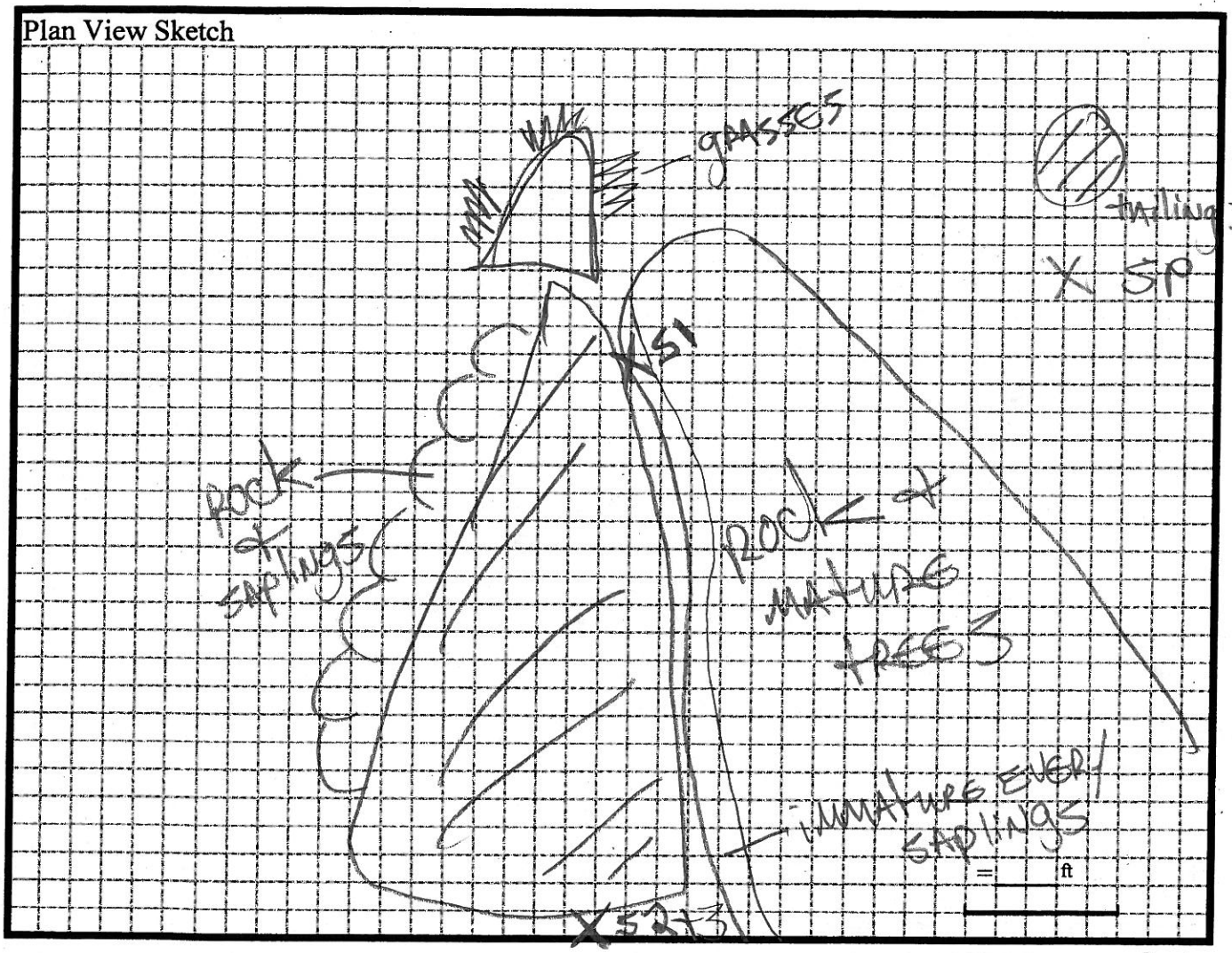
Other Observations:

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover					
Vegetation					
Evidence of Wildlife or Recent Human Activity					

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	Emma M. 2
Date	9-15-11
Weather	Rainy

Plan View Sketch



Include the following in the field sketch for:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

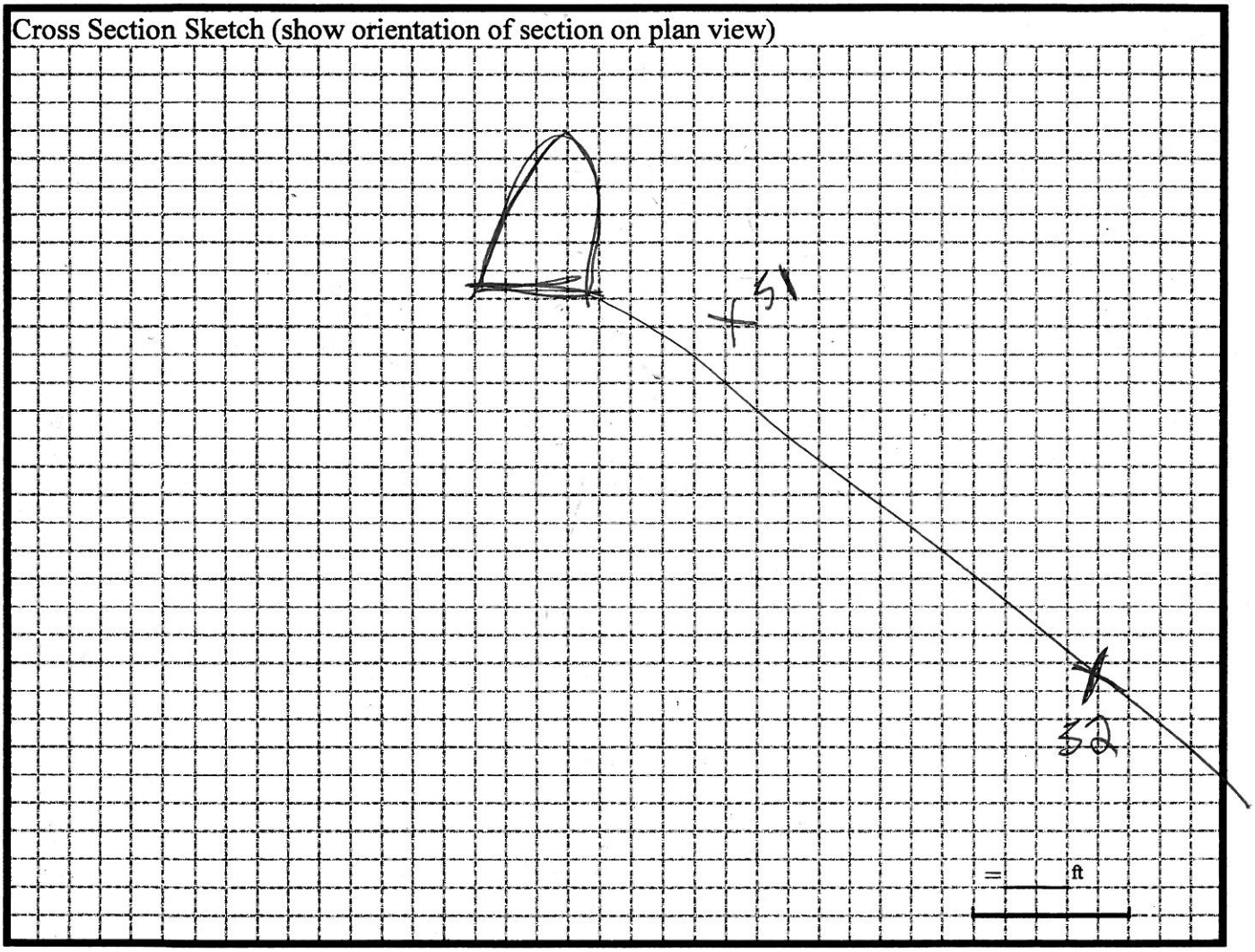
Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

EVERGREENS - CEDAR, hemlock (domin.)

Feature ID	EMMA M 2
Date	9-15-11
Weather	RAINY

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - Facing southwest into tunnel opening.



Photograph 2 - Facing northeast (downslope) from tunnel opening.



Photograph 3 - Facing west from S2 sample location at the toe of the waste rock pile.

74 MINE

AML Feature Inventory

Feature ID: 94 Mine

Surveyor(s): ASK / MAH

USGS Quad:

Survey Date: 9/15/11

Directions to Site (from a main road or landmark appearing on map)

take river trail up to dry creek bed; walk up creekbed to ~ 36600 ft. and head up drainage going west to ~ 4150 ft; adit on South side of narrow drainage channel

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical 3. Sloped (If sloped, report approx slope angle) — slope angle: 43 deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☒ adit(s) ☐ pit(s) ☐ other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
adit	open	6x4x?				313		

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☐ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
WR	20x12x3				0 / 50 / 0 / 20	N	N				74-1

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965. 4796821
74-1 (0-6")	middle of adit drainage at toe of slope before bedrock drainage	74-1	med dense, wet, brown, gravelly sandy silt		N47.97054 W121.38604 4140 ft photo 317

Miscellaneous Notes:

AML Feature Inventory

Feature ID

Survey Date

Surveyor(s)

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☐ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479865

☐ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

AML Feature Inventory

Feature ID _____ Survey Date _____

Surveyor(s) _____

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal

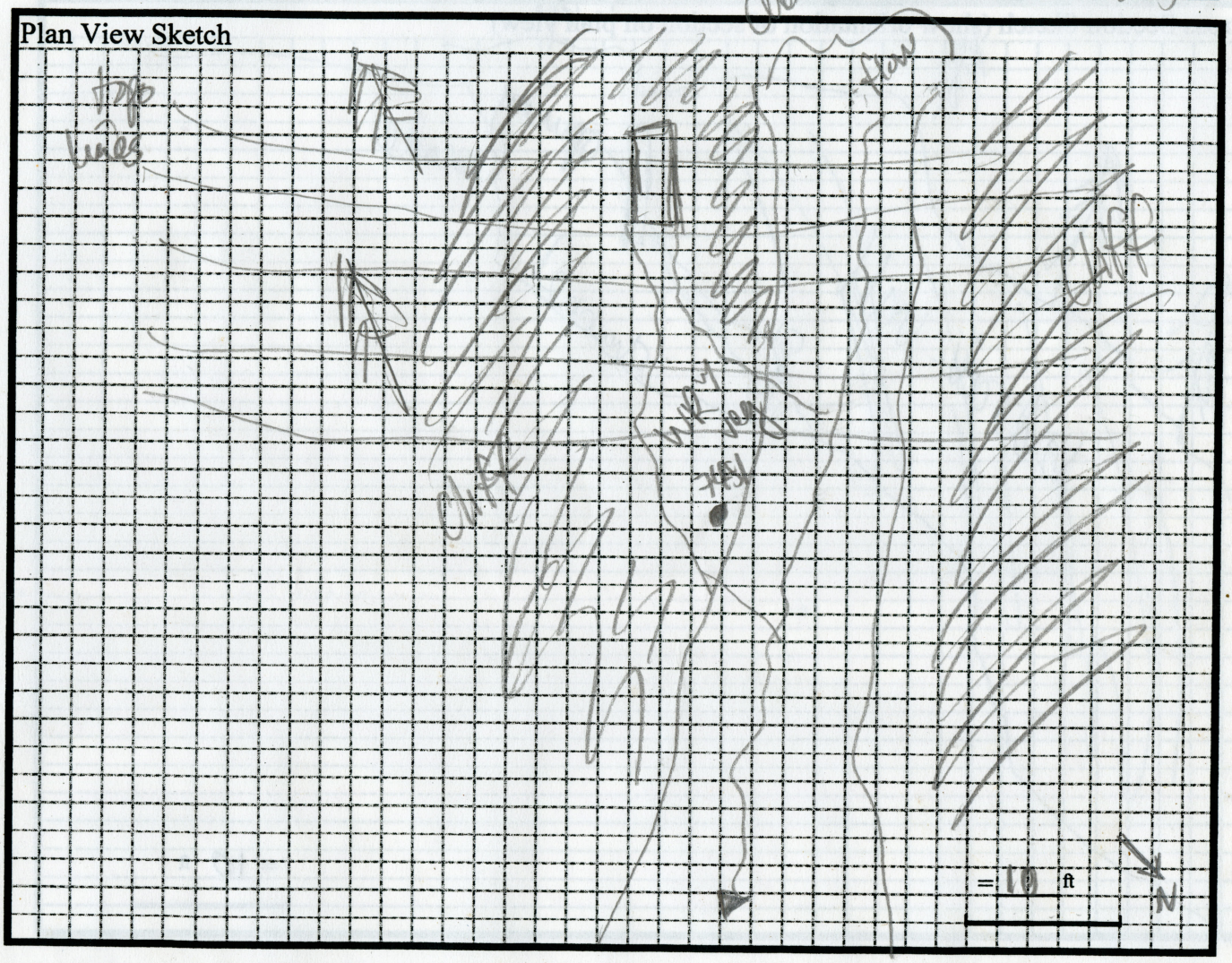
Other Observations:

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover					
Vegetation					
Evidence of Wildlife or Recent Human Activity					

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	
Date	9-15-11
Weather	~~rain~~ foggy

Plan View Sketch



Include the following in the field sketch for:

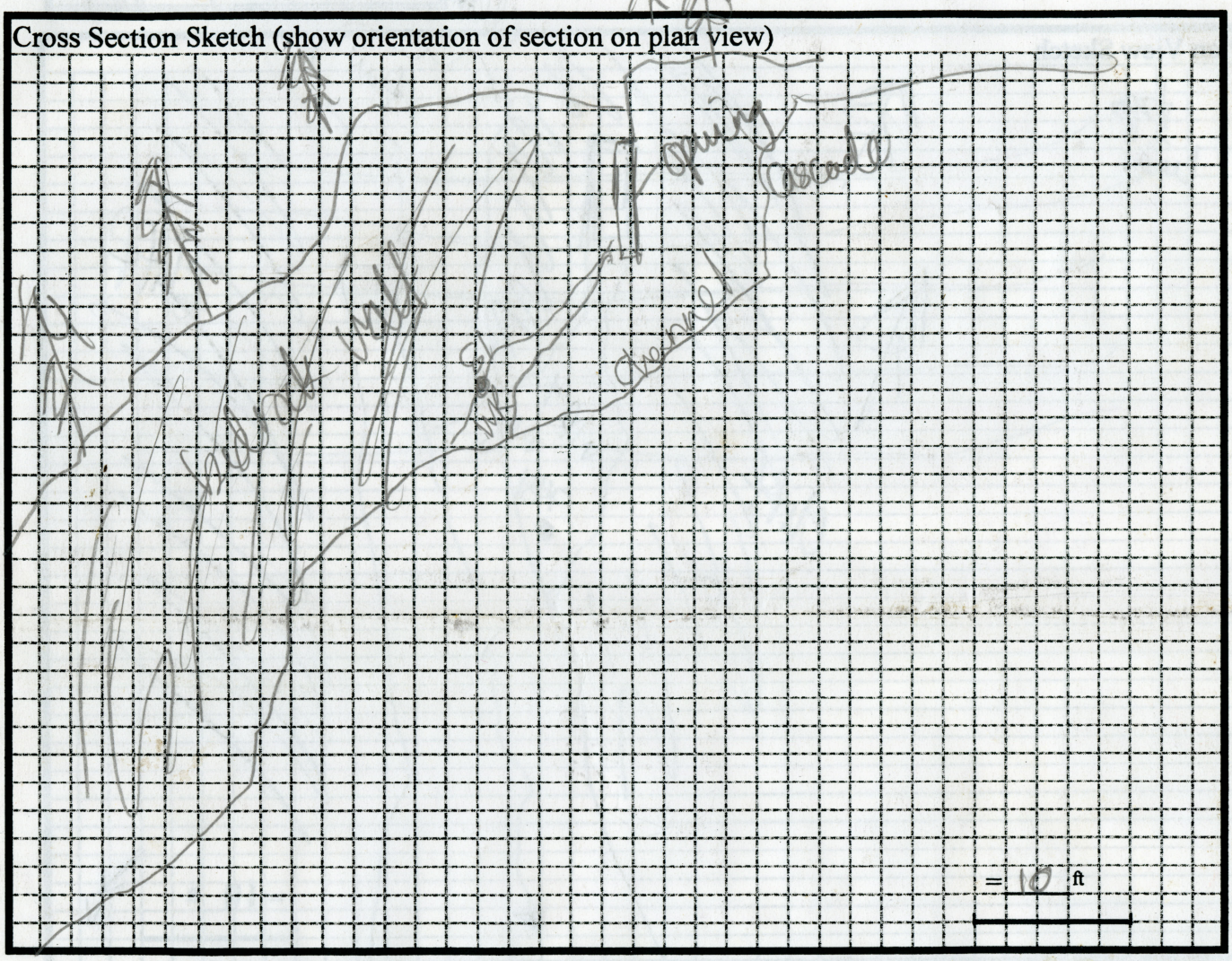
North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

Feature ID	_____
Date	_____
Weather	_____

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - Facing southwest (upslope) into the opening.



Photograph 2 - Facing northwest (downslope) from S1 sample location in the middle of the adit drainage.

IBEX NO. 1

AML Feature Inventory

Feature ID: IBEX

Surveyor(s): PBC, WDM

USGS Quad:

Survey Date: 9/28/11

Directions to Site (from a main road or landmark appearing on map)

Go to IBEX claim up 76 drainage basin.
Head up east side up drainage.
Mine is between two small drainages at base of cliffs.
Both drainages turn into small slot canyons.
Mine is hidden behind relatively young cedar trees

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical 3. Sloped (If sloped, report approx slope angle) slope angle: 44 deg

44° slope → Vertical Cliffs

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☒ adit(s) ☐ pit(s) ☐ other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
	open	5x5x93'	N	NA	NO		Adit on east side of 76 drainage	Trimble

WA State Plane South NAD83
N-962401 ft E-1425475 ft
4188' elev

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☒ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	Inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
Waste Rock	150x75'	~45°	N	NA	25% cedars	Y	NO	S1, S2	fine - cobble	wet, d.brown, sl. silty, sl. sandy F-C GRAVEL	N 962401 E 1425475
	H-unknown				40% Brachen Fern						
					65% total						

Trimble GeoXH 109

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821
1430 IBEX - S1 - 0-6"	top of waste rock	IBEX - S1	wet, d. brown, sl silty sl. Sandy F-C GRAVEL, occasional roots		N-962374 ft E 1425438ft E
~~IBEX - S1 - 6-12"~~					4156' elev
1440 IBEX - S2 - 0-6"	Bottom of Waste Rock	IBEX - S2	Moist, brown, silty SAND		N-962331 ft E 1425298ft
~~IBEX - S2 - 6-12"~~					4,081ft elev

Miscellaneous Notes:

AML Feature Inventory

Feature ID: IBEX

Surveyor(s): PRC, ~~MOM~~

Survey Date: 9/28/11

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS
			NONE				

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill			NONE		

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings				NONE		

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn
			NONE	

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal
small cans	~5		in mine	tin cans
wheel barrow	1		in mine @ bend	rusted wheel barrow

Other Observations:

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover					
Vegetation	small cedar trees, [illegible]	15	—	—	at adit
Evidence of Wildlife or Recent Human Activity	deer prints on waste rock	1	—	—	on waste rock
Vegetation	Brascan berries	abundant	—	—	on waste rock
SNAG - cedar ?	Cedar Snag	2	—	Y	dead trees in middle ~~and~~ of waste rock pile

AML Feature Inventory

Feature ID: IBEX

Survey Date: 9/28/11

Surveyor(s): PRC, MDM

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS
			NONE				

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill			NONE		

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings				NONE		

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn
		NONE		

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal
small cans	~5		in mine	tin cans
wheel barrow	1		in mine @ bend	rusted wheel barrow

Other Observations:

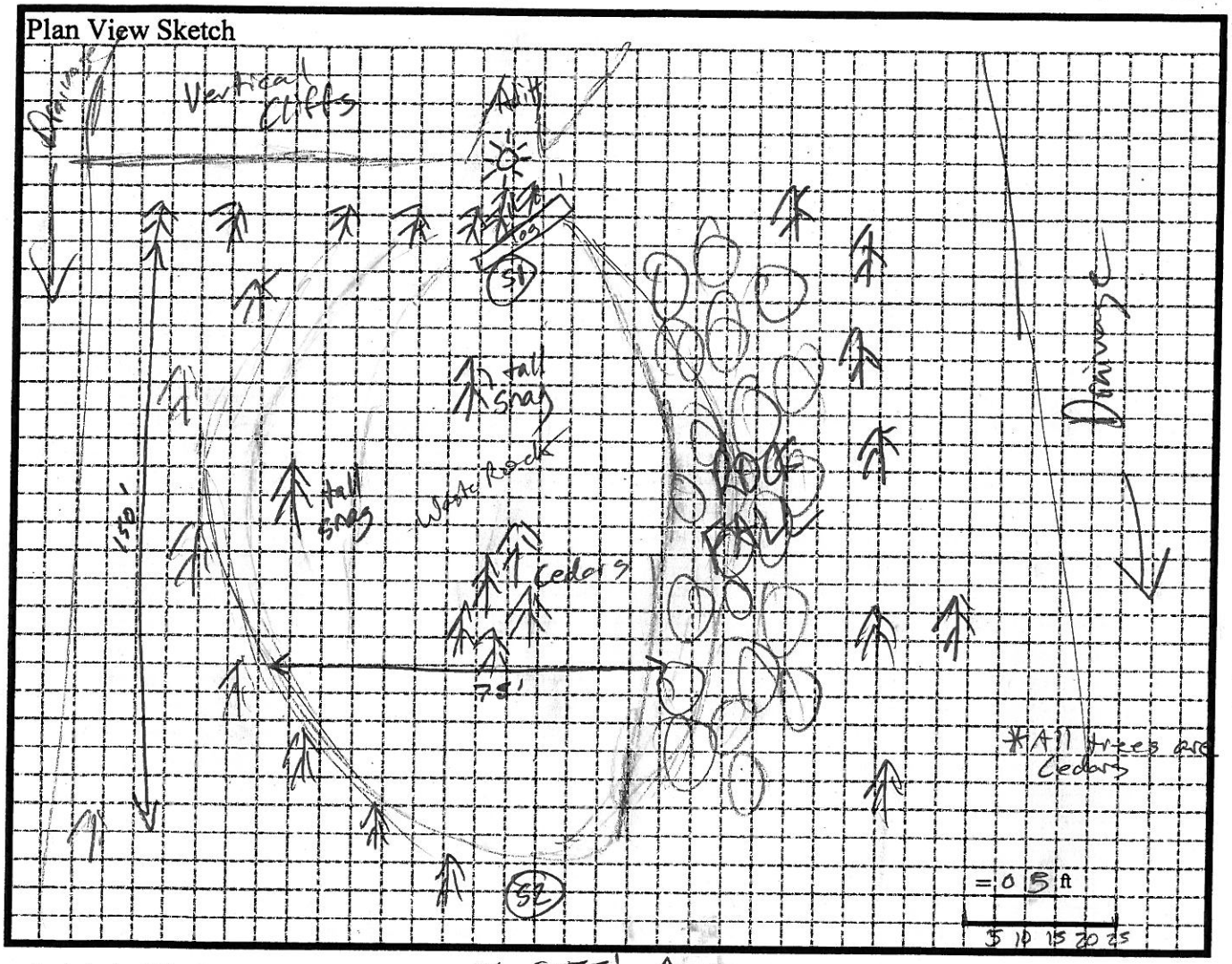
	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover					
Vegetation	small cedar trees, [redacted]	15	—	—	at adit
Evidence of Wildlife or Recent Human Activity	deer prints on waste rock	1	—	—	on waste rock
Vegetation	Ponderosa pines	abundant	—	—	on waste rock
SNAG - cedar ?	Cedar Snag	2	—	Y	dead trees in middle ~~of~~ of waste rock pile

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	IXL
Date	9/28/11
Weather	sunny

← N

Plan View Sketch



Include the following in the field sketch for: ↔ 75' ↕ 150

North Arrow ✓
Scale Bar ✓
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water none
- S-# Soil ✓
- T-# Tailings none
- R-# Rock (Waste) ✓
- O-# Ore none
- S-# Other (Describe)

Footprint(s) of:
Mills none
Buildings none
Structures none
Mining-Related Piles ✓
Other

Surface Water (Ponds, Seeps, Etc.) none
GPS Collection Location ☼ ✓
Elevation (Topographic Variation)
Slope Direction

Waste Rock
150' EW downslop
10' vertical

4188
4081

Photos start @ #378

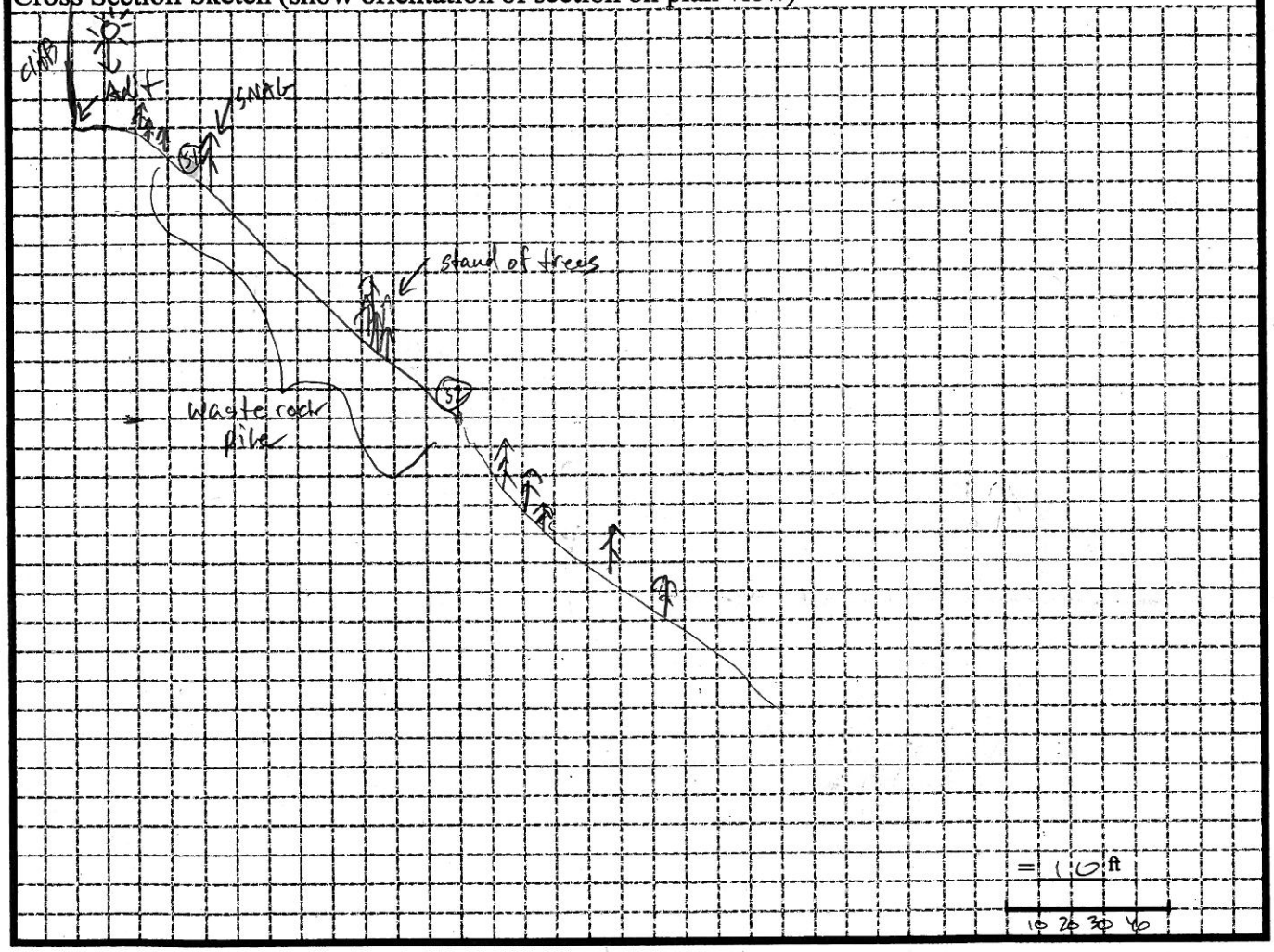
S1 - photo 382, 383
S1 - North 384

S2 - 388
S2 - north 389

Feature ID	IBB
Date	9/28/11
Weather	Sunny

E ⟷ W

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water none
- S-# Soil ✓
- T-# Tailings —
- R-# Rock (Waste) ✓
- O-# Ore —
- S-# Other (Describe) —

Location(s) of:
- Mills none
- Buildings none
- Structures none
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.) none
GPS Collection Location ☼ ✓ @ adit and sample locations
Elevation (Topographic Variation) ✓



Photograph 1 - Facing east into the Ibex No. 1 adit opening.



Photograph 2 - Sampling pit (S1) near the top of the waste rock pile.



Photograph 3 - Facing east (upslope) from S1 sample location at the top of the waste rock pile.



Photograph 4 - Facing northeast (upslope) from S2 sample location at the toe of the waste rock pile.

O & B MINE

AML Feature Inventory

Feature ID: O+B
Surveyor(s): ASK / MAH
USGS Quad:
Survey Date: 9/28/11

Directions to Site (from a main road or landmark appearing on map)

Take trail in Fig Gulch towards Silver Lake. When you reach Poodle Dog Pass head NW along ridgeline above Silver Lake to a small pond. Past the small pond, follow drainage channel downslope to larger unnamed lake. Continue around the lake on shoreline to the left and upslope. When reaching a large boulder/rock field to the west, travel up the rock fields to reach the middle & upper & lower O+B waste rock piles.

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical (3. Sloped) (If sloped, report approx slope angle) slope angle: 43 deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☐ adit(s) ☐ pit(s) ☒ other (explain) tunnels

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
tunnel upper	collapsed	?	Y	<0.5L/min	n	70-73		
tunnel lower	collapsed							
lower adit	open	5X4X18	Y	2L/min	n			

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☒ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	Inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
WR upper	160x60x6	43	Y	active	5/3/1	N	boards	upper S1-S3			
all ~ WR lower	200x25x8	30	Y	active	0/0/0	N	not recent	lower S1-S2			

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965. 4796821
1500 O+B upper S1 0-6	NW edge of WR - upper	1	(med dense) moist r. brown v. gravelly sandy SILT		1: N47.98034 W121.40437
1525 O+B upper S2 0-6	N edge of WR drainage - upper	2	(loose-med. dense) wet, dark r. brown, v. gravelly sandy SILT		2
1540 O+B upper S3 0-6	middle of drainage/erosion - upper	3	(med. dense), damp, wet r. brown, v gravelly sandy SILT		3
1620 O+B lower S1 0-6					
1645 O+B lower S2 0-6					5

4532 ft

Miscellaneous Notes:

upper S3 0-6 sheen on some rocks

AML Feature Inventory

Feature ID: _____ Survey Date: _____

Surveyor(s): _____

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☐ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479865

☒ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985
upper 53 adit	soil on upper WR pile	orange/brown	500+' upslope of small pond	amphibians		3

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

AML Feature Inventory

Feature ID

Survey Date

Surveyor(s)

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☒ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal

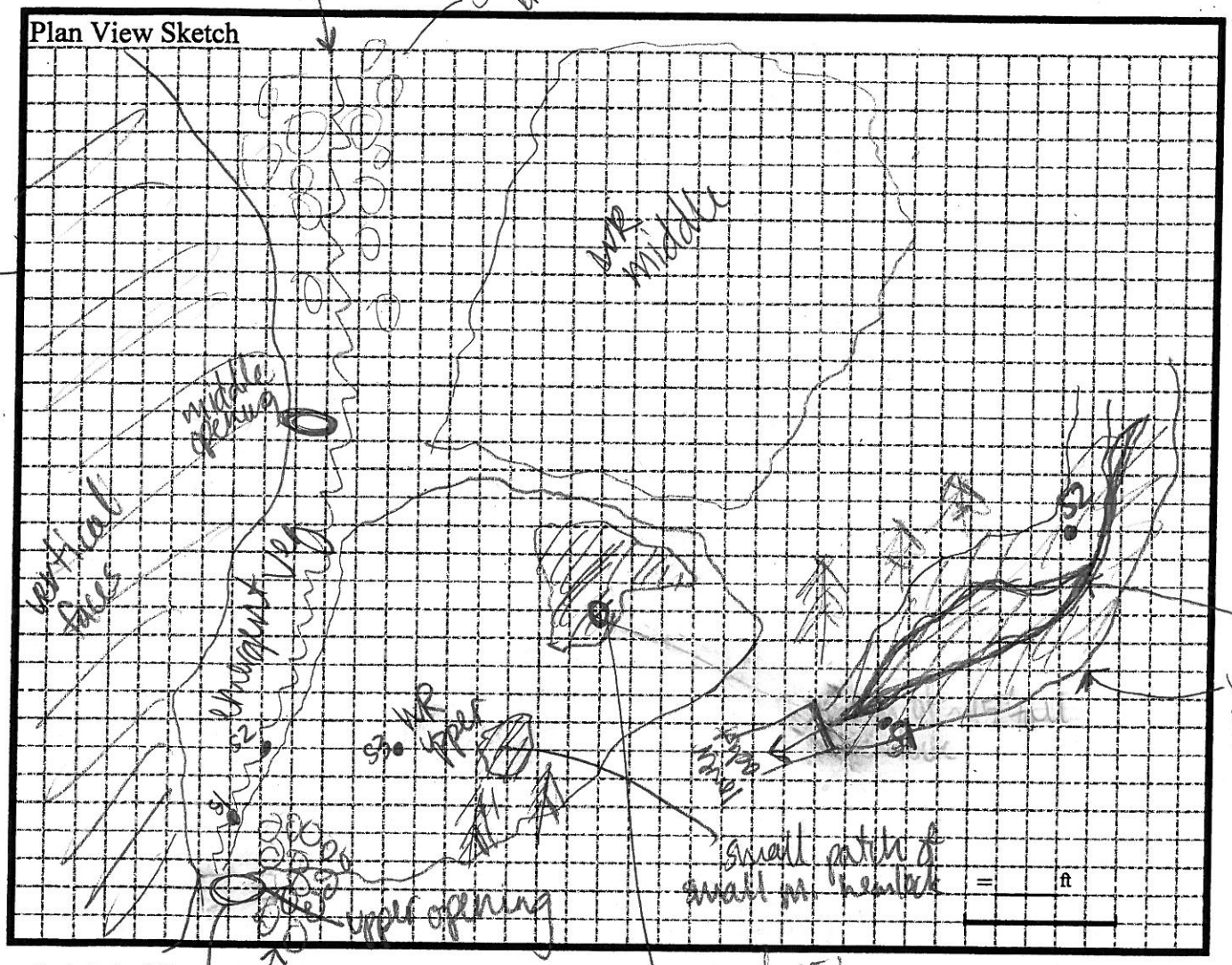
Other Observations: TEE

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover					
Vegetation					
Evidence of Wildlife or Recent Human Activity					

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	O?B
Date	9/28/11
Weather	Sunny, cool

Plan View Sketch



Include the following in the field sketch for:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

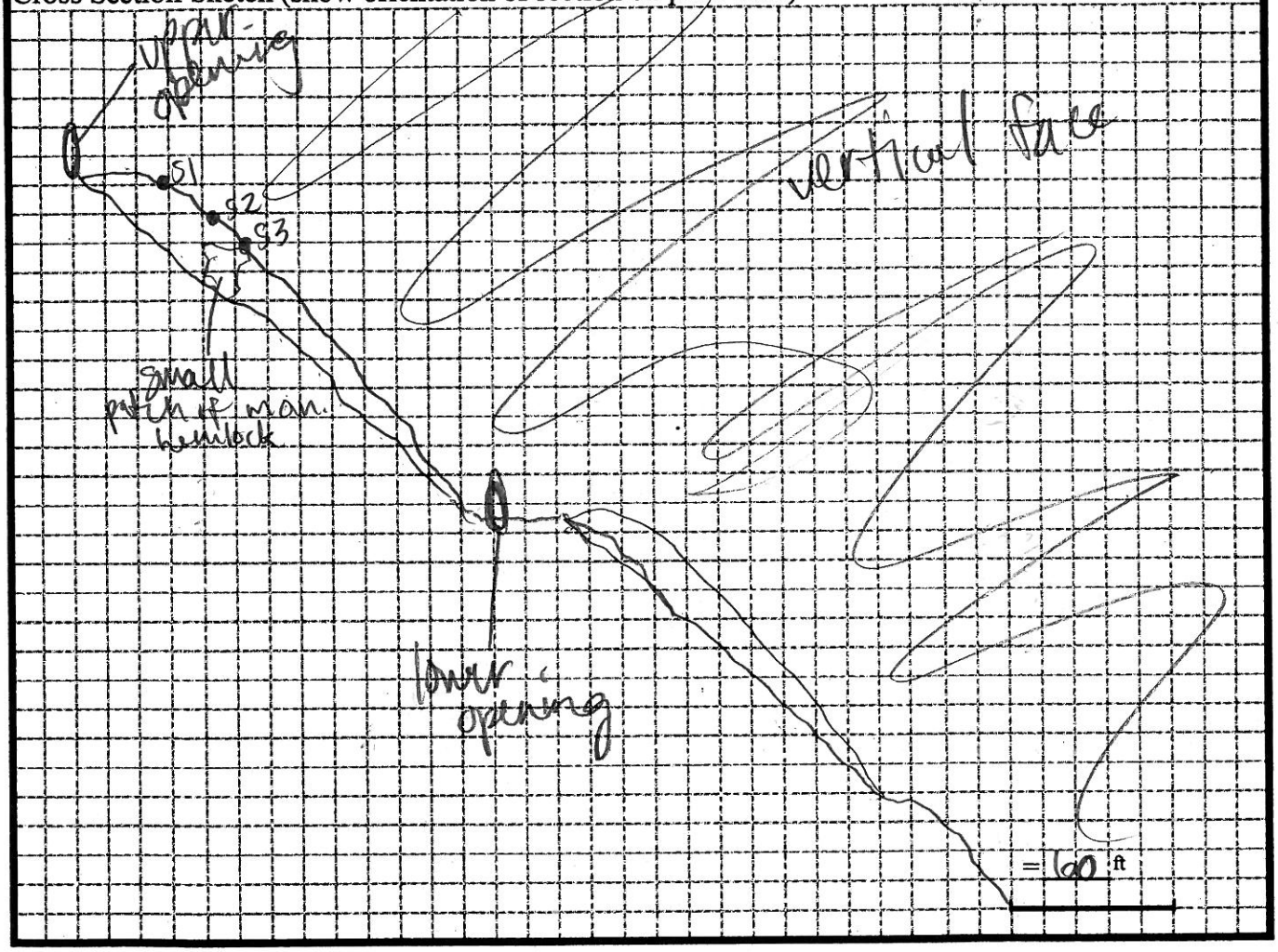
Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

Feature ID	_____
Date	_____
Weather	_____

N → E

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - O&B Mine middle waste rock pile, facing southeast.



Photograph 2 - Side view of both the upper and middle waste rock piles for O&B Mine.



Photograph 3 - View from the top of the upper waste rock pile looking downslope (northeast) over the upper and middle waste rock piles.



Photograph 4 - Facing southwest into the O&B – Lower tunnel opening; approximately 10 to 12 inches of water in the tunnel.



Photograph 5 - View of the lower waste rock pile with an incised channel from the lower tunnel drainage; flow rate was approximately 2L/min.



Photograph 6 - Debris found downslope of the waste rock piles.

CONGRESS MINE

AML Feature Inventory

9/29/11 page 1

Feature ID: Congress
Surveyor(s): PRC, WOM
USGS Quad:
Survey Date: 9/[illegible]

Directions to Site (from a main road or landmark appearing on map)

Up 76 drainage trail. Past cabin ~ 20 yds head up talus slope. When reach cliffs, traverse below cliffs ~ 150 yards to biggest drainage. Mine is on north side of drainage ~100 yards above cliff band. Mine is below cliffs at end of drainage where waterfall starts.

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical 3. Sloped (if sloped, report approx slope angle) slope angle: 40-45 deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☐ adit(s) ☒ pit(s) ☐ other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2 main drainage	G7: 1278956, 476985
Adit 1	open (partially collapsed)	5x5x~60'	Y	No flow	NO		Adit in NE corner of Congress drainage	

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☐ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	Inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
Waste Rock 1	190' x 20-30x?	40-45	# small trickle ~0.2 gpm from above mine	No seepage	10% - thistles and other weeds	N	N		fine - cobble	Moist, brown - dark brown, silty Sandy GRAVEL	

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Sieved?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821
Congress - S1 - 0-6	top of WR & adit	~10' downslope from adit	moist, dark brown, silty sandy GRAVEL (angular to subangular)	Based on GIS	962377.48-N 1423169.01-E elev ~9310'
Congress - S1 - 6-12	" "				
CONGRESS-S2 - 0-6	BOTTOM OF ADIT	~ 200+	MOIST, DRK BROWN, SILTY, SANDY GRAVEL (ANGULAR TO SUBANGULAR) w/ ROOTS		962447.43-N, 1423345.41-E elev 4192'
S2 6-12					

Miscellaneous Notes:

AML Feature Inventory

Feature ID Congress **Survey Date** 9/30/11

Surveyor(s) PAC, WDM

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985
				NONE		

☒ Seep(s) ☒ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479865
Creek	~25' south of adit running EW		~1	NO	NA

Creek is/has eroded waste rock

☐ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985
	NONE					

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

None from adit, creek is eroding waste rock

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985
		NONE		

AML Feature Inventory

Feature ID: Congress

Surveyor(s): HC, WDM

Survey Date: ~~4/[illegible]~~ 9/29/11

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS
			NONE				

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal



Other Observations:

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover	thistles, unidentified weeds, buttercups, thimbleberries	10%	NO	NO	vegetation on north side of drainage different from vegetation on south side. Alder and small shrubs on south side, thistles and small weeds on north side
Vegetation					
Evidence of Wildlife or Recent Human Activity	No wildlife / human activity				

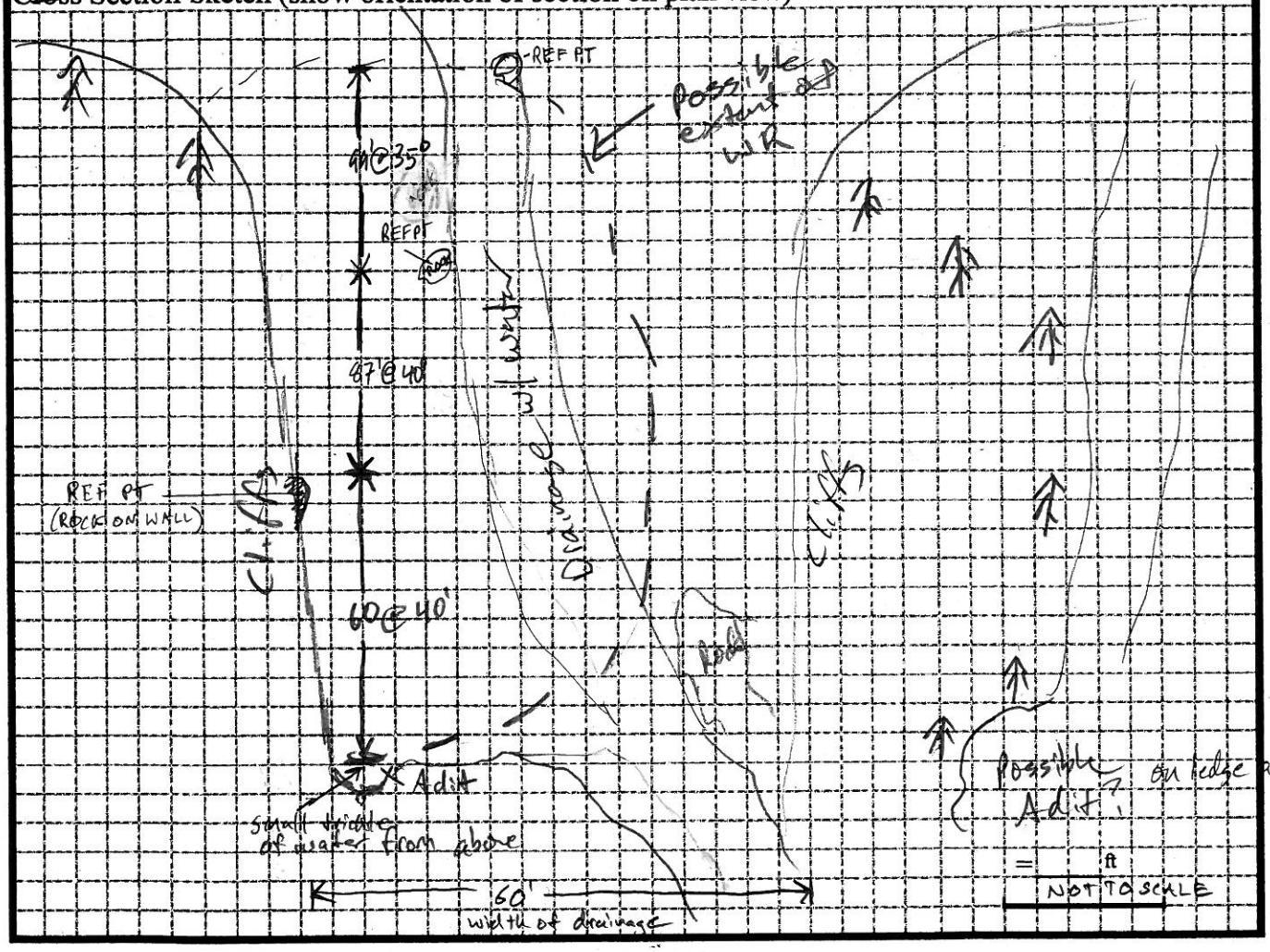
Feature ID	Congress
Date	1/30/11
Weather	sunny

← N

To 76 gulch ↑

Plan View

~~Cross Section Sketch~~ (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)

* WR likely washed to bottom of 76 drainage

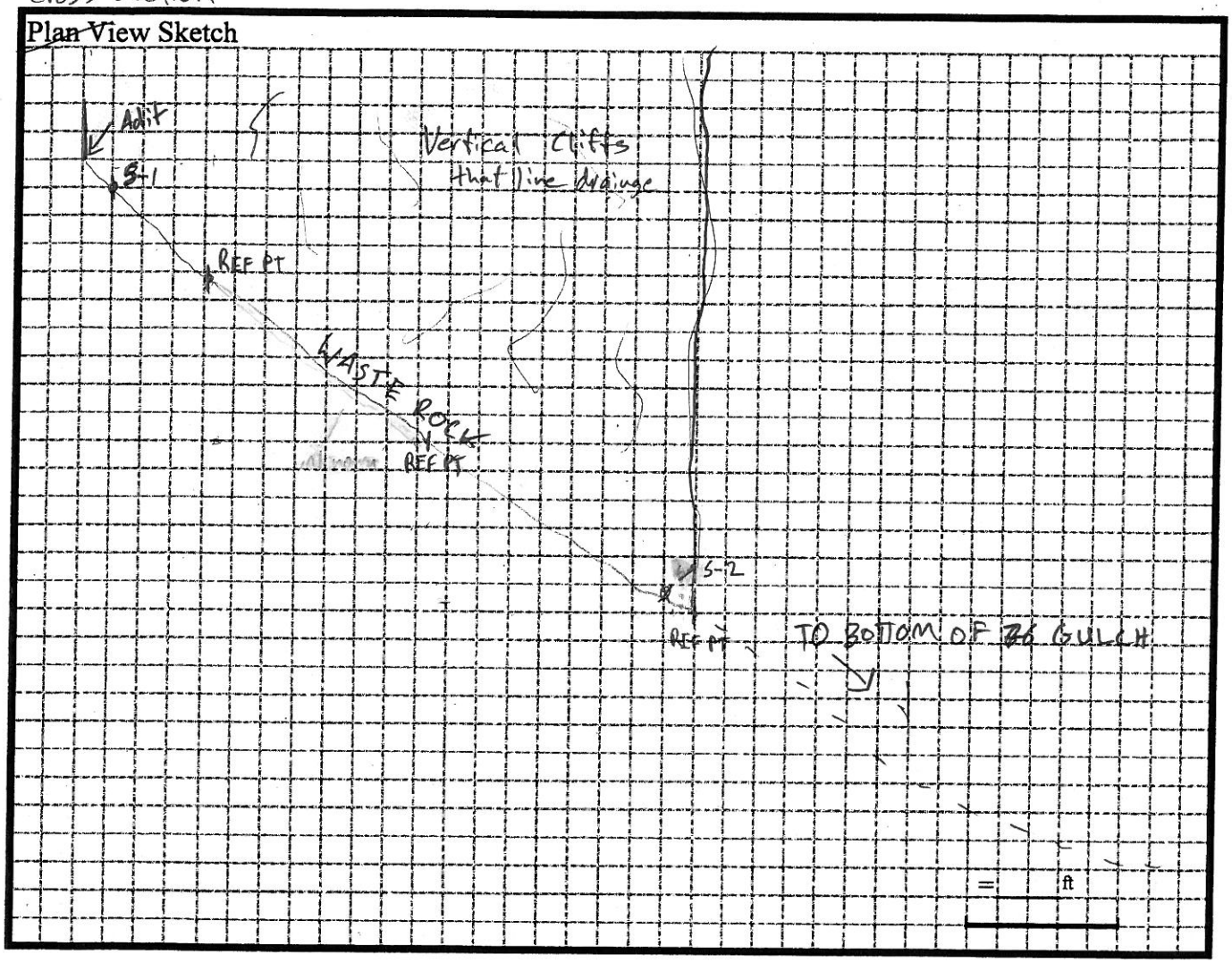
Calculations indicate that waste rock pile is 190' long. Thickness is not known due to extensive erosion of pile.

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	Conveyor
Date	9/30/11
Weather	sunny

Cross Section

Plan View Sketch



Include the following in the field sketch for:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction



Photograph 1 - Congress Mine adit.



Photograph 2 - Facing southwest into Congress Mine adit opening.



Photograph 3 - Facing west from the S1 sample location at the top of the waste rock pile.



Photograph 4 - Sample pit (S2) at the toe of the waste rock pile.

SAUK LODE – LOWER

Gray Garmin
Edwards camera

900 m
3.21
960
1920
2880
308 1.60 ft.

AML Feature Inventory

Feature ID: ~~Sauk Lodge~~ Sauk1

Surveyor(s): ASK / MAH /

USGS Quad:

Survey Date: 9/30/11

Directions to Site (from a main road or landmark appearing on map)

follow Sauk River South bank, from townsite, cross 1st drainage channel, go to 2nd drainage channel and follow up to approximately 2800 ft and look for opening

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical (3. Sloped (if sloped, report approx slope angle)) slope angle: 28 deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☐ adit(s) ☐ pit(s) ☒ other (explain) tunnel

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
tunnel	open	4x4x >41	Y	0	n		opening in SW end of small drainage channel	N47.95081 W121.41569 2872 ft. Couldn't collect GPS point

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☐ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
WR	NA	28	Y	active	5/50/40	N	N				

Sample Inventory

No samples collected – no soil left, waste rock has eroded away

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821

Miscellaneous Notes:

AML Feature Inventory

Feature ID _____ **Survey Date** _____

Surveyor(s) _____

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☐ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479865

☐ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

AML Feature Inventory

Feature ID

Surveyor(s)

Survey Date

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal

Other Observations: TEE

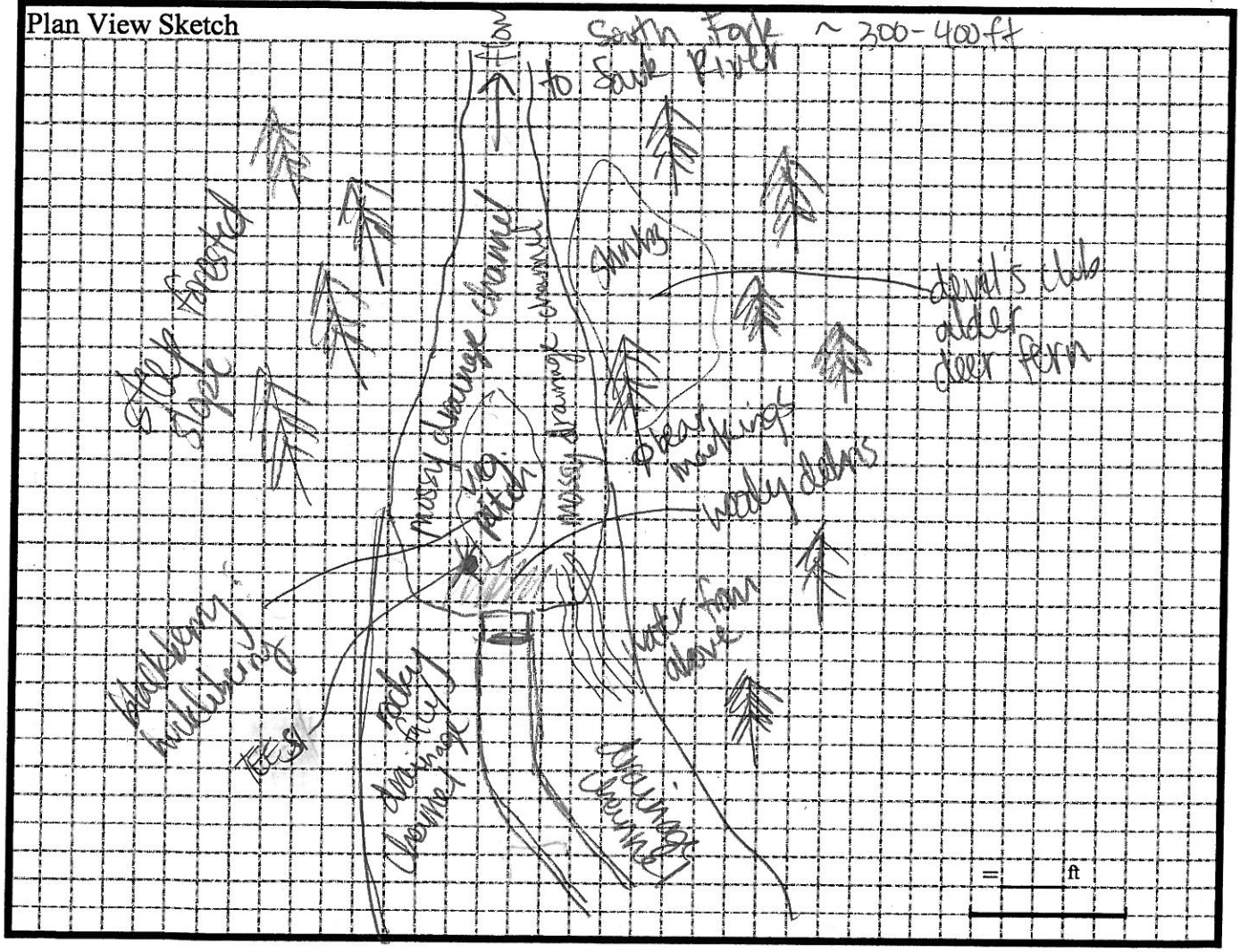
	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover					
Vegetation					
Evidence of Wildlife or Recent Human Activity					

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	Sawk 1
Date	9/30/11
Weather	PC, ~50°F

↑N ↑downslope

Plan View Sketch



Include the following in the field sketch for:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

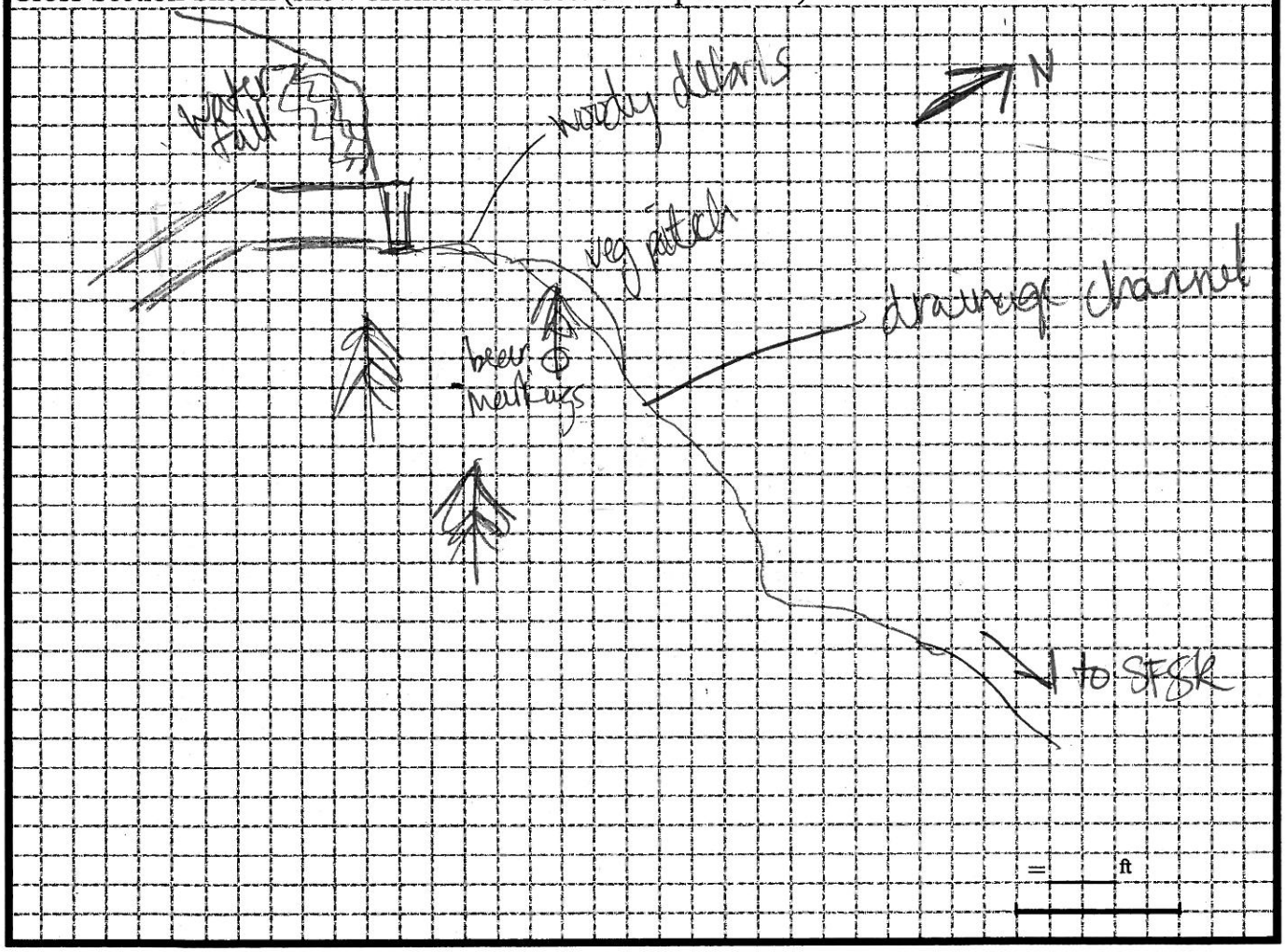
Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

scattered stained rock throughout drainage channel — no clear delinkation of waste rock pile

Feature ID	SWK1
Date	9/30/11
Weather	PC, cool

tunnel goes in SW, then turns south

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - Sauk Lode – Lower tunnel located within drainage channel.



Photograph 2 - Facing southwest, Sauk Lode - Lower opening.



Photograph 3 - View from the opening, looking downslope (northeast). There was no apparent waste rock to sample at the site.

MACKINAW TUNNEL NO. 1 (Weden 1)

AML Feature Inventory

Feature ID: Weden 1 | USGS Quad: | Survey Date: 7/9/11

Surveyor(s): ASK, CAA, MAH

Directions to Site (from a main road or landmark appearing on map)

~1 mile down abandoned road on eastern side on Weden Creek

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical 3. Sloped (if sloped, report approx slope angle) — slope angle: 35 deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☐ adit(s) ☐ pit(s) ☒ other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
~~opening~~ tunnel	open	20x15x6	~~Y~~ N	no flow	n			wp 004

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☒ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1	150 x 50 x 3	38	Y	Inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
WR	25x25x2	40	N	inactive	5/95/0/0	N	N	Weden 1 S1: S2			

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821
Weden 1 S1 (0-6")	top of WR pile	yellow garmin 005	loose, moist, brown-dark brown, sandy-SILT fine-coarse gravels	Y, ASTM #10	121.43600, 47.98988
Weden 1 S1 (6-12")			loose, moist-wet, brown, sandy-SILT, coarse fine gravels	~~Y, ASTM #10~~ N	
Weden 1 S2 (0-6")	bottom of waste rock pile	yellow garmin 009	loose, moist, brown, sandy-SILT, v. gravelly (fine-coarse)	N	121.43598, 47.98990
Weden 1 S2 (6-12")			"	N	

2744 ft. wp 005

2683 ft. altimeter 2725 ft GPS wp 009

Miscellaneous Notes:

Weden 1 S1 (6-12") - lot of angular gravels

7/12/2011

AML Feature Inventory

Feature ID | **Survey Date**

Surveyor(s)

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☐ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479865

☒ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985
Stain 1	soil downslope of tunnel	orange brown ?	upslope of Inlet	fish	" "	

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

AML Feature Inventory

Feature ID _____ Survey Date _____

Surveyor(s) _____

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☐ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal

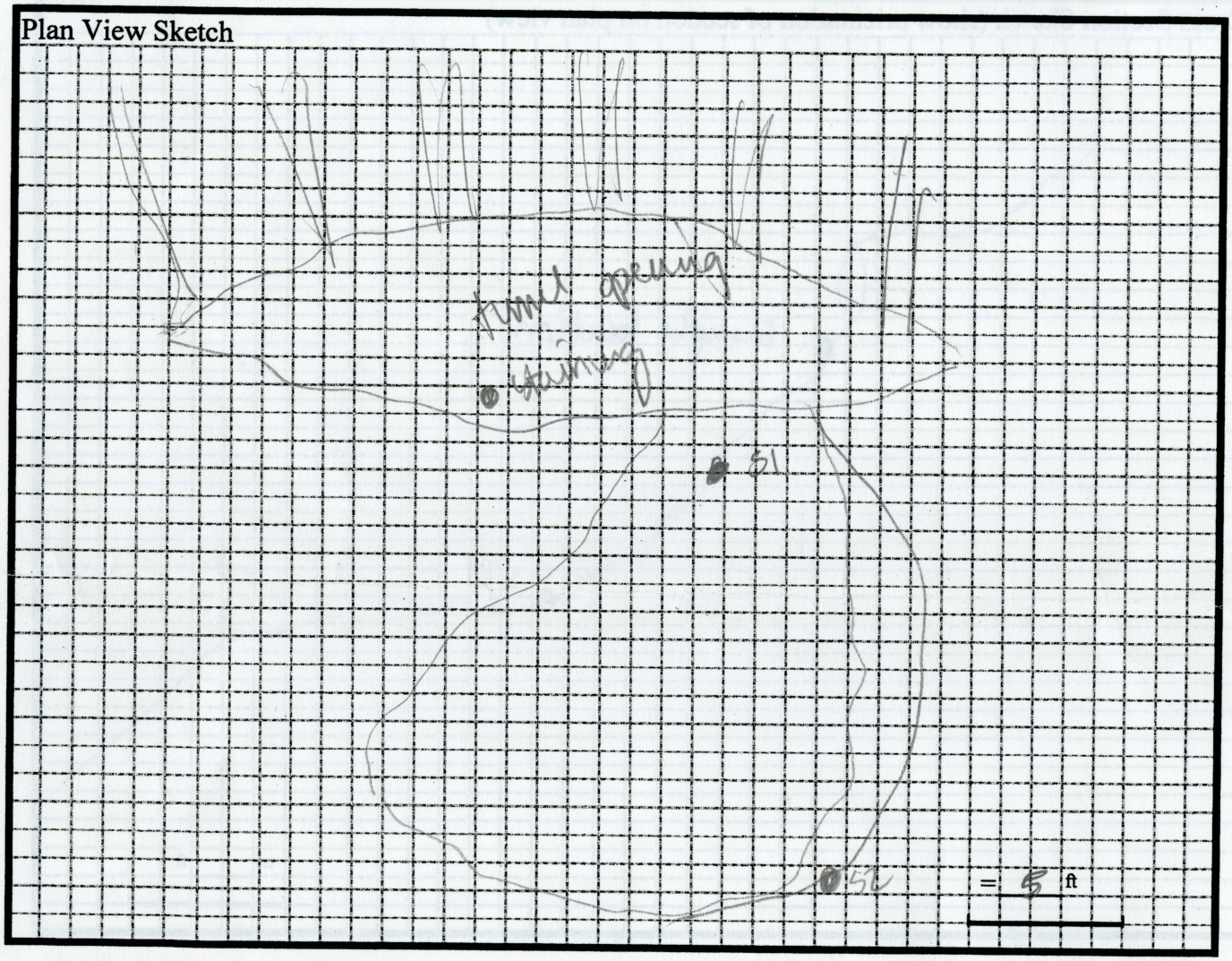
Other Observations:

	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover	lots of shrubs covering pile			no	
Vegetation					
Evidence of Wildlife or Recent Human Activity					

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	Weden 1
Date	7-9-11
Weather	sunny

Plan View Sketch



Include the following in the field sketch for:

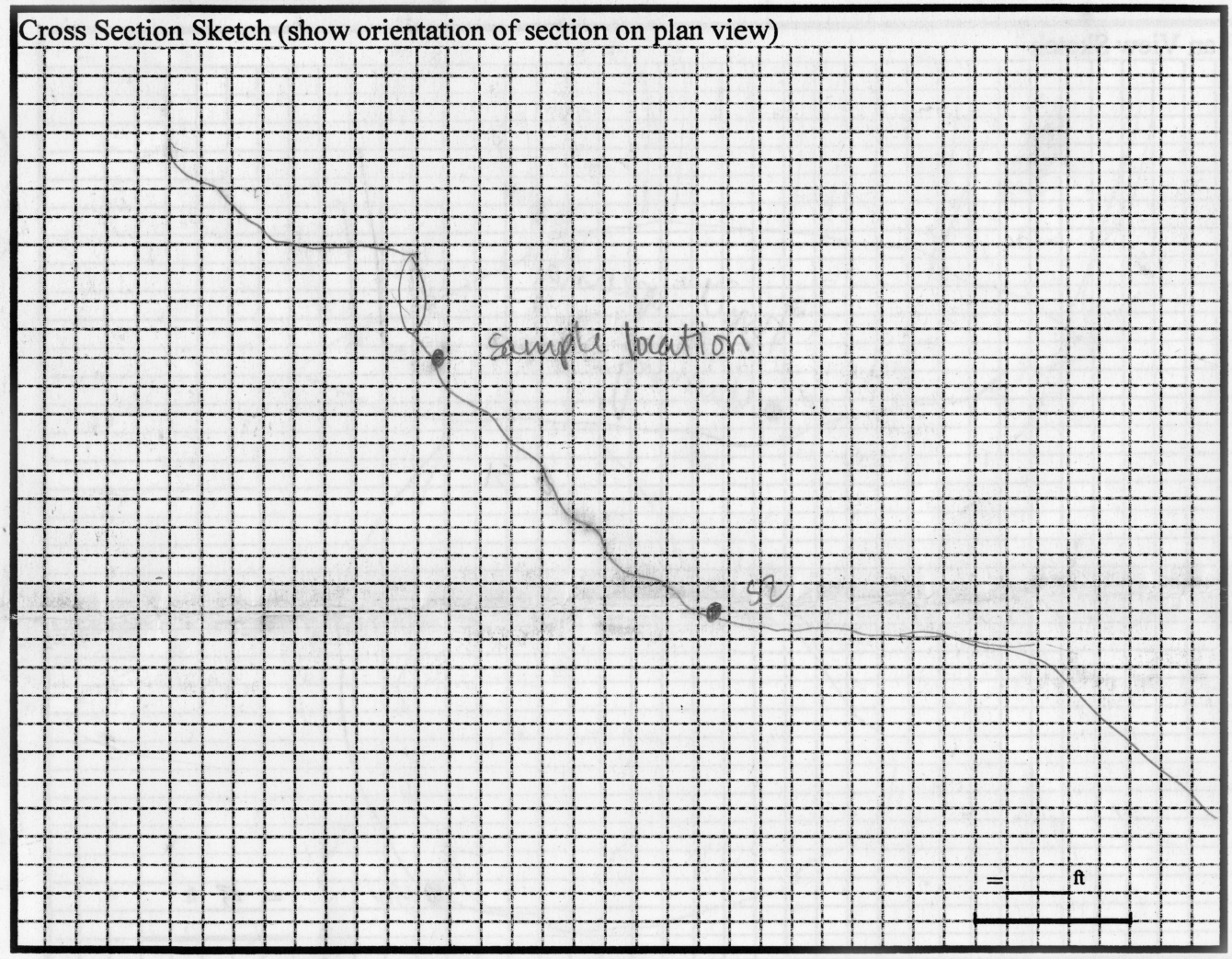
North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

Feature ID Weden 1
Date
Weather

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - Facing northeast, waste rock pile at Mackinaw Tunnel No. 1.



Photograph 2 - Facing northeast, Mackinaw Tunnel No. 1 opening.



Photograph 3 - Sampling pit (S2) at toe of waste rock pile, southwest corner of pile.

MACKINAW TUNNEL NO. 2 (Weden 2)

AML Feature Inventory

Feature ID: Weden 2

USGS Quad:

Survey Date: 7-12-11

Surveyor(s): ASK, CAA, MAH

Directions to Site (from a main road or landmark appearing on map)

end of old road into Weden ; across drainage channel

Terrain Slope (Circle where applicable): 1. Flat 2. Vertical 3. Sloped (if sloped, report approx slope angle) slope angle: 35-40 deg

Physical Features / Sources

Mine Openings: ☐ shaft(s) ☐ adit(s) ☐ pit(s) ☒ other (explain)

Opening Type / Count ID	Open / closed / collapsed / flooded / other?	Nominal Dimensions in feet	Water Present (Y / N)	Flowrate in GPM	Animals Present (ie: bats, other)	Photo # (Site-Photo#-Date)	Description	GPS
(i.e.) Adit 1 tunnel	open	5 x 10 x 8	Y	0.5 L/min	n	Butte - P3 - 6/15	Adit on northeast side of WR-2	G7: 1278956, 476985
	open	23x10x10	Y	24/min ~5" subsurface	spider		Tunnel opening on S side of drainage channel	

*Elevation Measurement Method: B=barometer, T = Topo Map, O = Other (explain)

Mining Activity-Related Piles: ☒ waste rock pile(s) ☐ tailings pile(s) ☐ ore / leach pile(s) ☐ debris pile(s) ☐ other (explain)

Pile Type / Count ID	Dimensions in ft (L X W X H)	Slope in degrees	Seepage Visible? (Y / N)	Seepage: Active / Inactive?	% Vegetative Cover (trees / brush / grass, moss)	Distressed Vegetation (Y / N)	Recent Human Activity (Y / N)	Sample Name(s)	Estimated Particle Gradation	Soils Classification:	GPS
(i.e.) WR-1 WR	150 x 50 x 3	38	Y	inactive	20% / 30% / 15%	N	bottles, footprints	Butte - WR1 - S1:	0.5" - 4"	moist, gray, sl silty, v sandy, Gravel	G1:G4 (see below)
	85x90x3	38	Y	Active	0/1/0/2	N	mud hut, rope	Weden2S1			

Sample Inventory

Sample Name (Site - Feature - Sample Number)	Location	GPS Name	Soil Description	Seived?	GPS
(i.e.) Butte - WR1-S1	Southern end of WR-1, top.	G9: Butte - WR1 - S1	moist, gray, silty, v. gravelly, Sand	Y, ASTM #10	G7: 1278965, 4796821
Weden 2 S1 (0-6")	middle of WR pile	Weden Weden 2S1	sandy silt - GRAVEL (fine : coarse), black, wet	N	121.434128, 47.981698

Miscellaneous Notes:

mostly organic matter

too rocky, couldn't collect a 6-12" sample

AML Feature Inventory

Feature ID _____ **Survey Date** _____

Surveyor(s) _____

Physical Features / Sources (Continued)

Mining Activity-Related Ponds or Liquid Containment Structures: ☐ leach pond(s) ☐ tailings pond(s) ☐ tailings impoundment(s) ☐ other (explain)

Pond Type / Count ID	Dimensions in ft (L x W x D)	Lined (Y / N)	Liquid Present (Y / N)	Animals Present (e.g. bats,	Sample Name(s)	GPS
(i.e.) LP 1	50 x 30 x 4	N	N	N	Butte - LP1 - S1:S2	G5: 1278965, 476985

☐ Seep(s) ☐ Creek(s) ☐ Pond(s) ☐ Lake(s)

Type / Count ID	Location	Sample Name	Flowrate in GPM	Odor, sheen, discoloration?	GPS
(i.e.) Flume Creek	southern site border	Butte - Flume Creek 1	0.1	None	G3: 1278496, 479855

☐ Soil Staining ☐ Seep Staining

Type / Count ID	Location	Color	Distance from Potential Contaminant Source to Receptor	Source & Receptor	Notes	GPS
(ie) Stain 1	soil downslope of Adit 1	orange/brown	100' upslope of Flume Creek	fish	ferricrete-like	G5: 1278965, 476985

Seasonal Flow Paths or Channels

Count / ID	Water Present (Y / N)	Sample Name	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Drainage 1	N	Butte - Sed 1	-	discharges into Flume Creek	fish	G1: 1279645, 476985

Wetlands

Count / ID	Flowrate in GPM	Distance from Potential Contaminant Source to Receptor	Source & Receptor	GPS
(ie) Wetland 1	1 L/min	50' N of Pend Oreille River	None	G7: 127856, 476985

A-102

AML Feature Inventory

Feature ID: _____ Survey Date: _____

Surveyor(s): _____

Physical Features / Sources (Continued)

Water Supply Structures: ☐ GW Well(s) ☐ SW Intake(s) ☐ Pit Toilet(s) ☐ Other (explain)

Type / ID	Inner Diameter	Depth	Soil Type	Population Served	Distance from Potential Contaminant Source	General Location	GPS

Buildings / Structures

	Mill Present (Y / N)	Mill Footprint in ft.^{2}	Waste Associated with Mill	Chemicals Assoc with Mill	GPS
Mill					

	Count / ID	Bldg. Footprint in ft.2	Suspected Bldg. Use	Bldg. Condition	Comments	GPS
Other Buildings						

Liquid or Waste Containment Structures: ☐ drum(s) ☐ tank(s) ☐ other (explain)

Type / ID	Count	Volume in Gal.	Condition	Suspected Contents
(ie) drums	1	55	dry, rusted, no lid	unkwn

Debris / Refuse: ☐ assay equip & retorts ☐ drum(s) ☐ scrap lumber ☒ scrap metal ☐ machinery ☐ other (explain)

Type/ ID	Number	Size	Location	Description
(ie) scrap lumber & metal		5' x 10' x 1'	top of mill	timbers (some charred), rails, stakes, and sheet metal
old pipe	1	2"x8'	top of wt gate	old pipe from opening, also found some across channel

Other Observations:

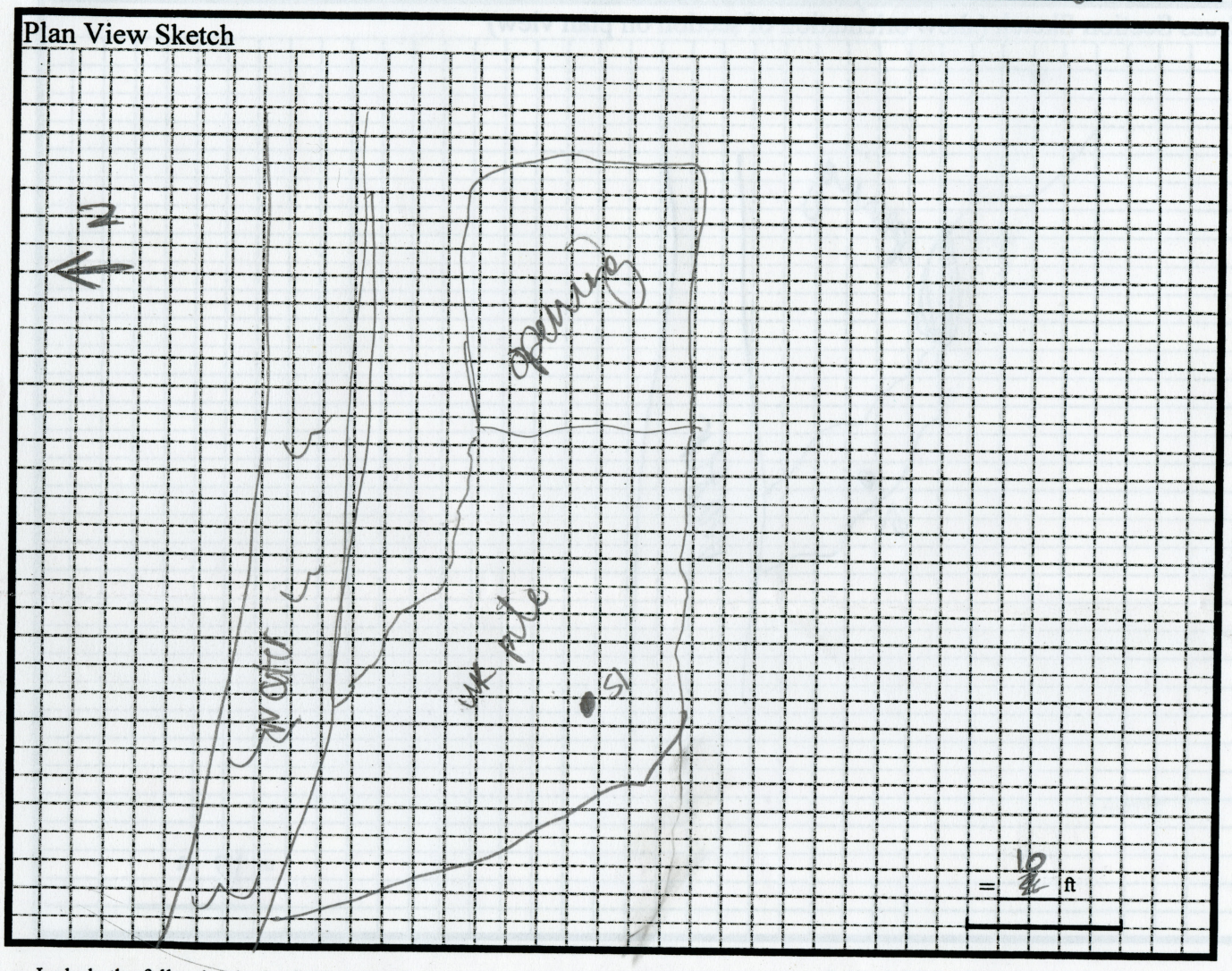
	Description	Quantity	Endangered / Threatened ?	Distressed Vegetation?	Comments
Ground Cover	very little matting moss				
Vegetation	very little				
Evidence of Wildlife or Recent Human Activity	old rope, hard hat, mug	4-5	N	N	

A-103

AML FEATURE INVENTORY/MONITORING FIELD FORM

Feature ID	Weden 2
Date	7-12-11
Weather	cloudy

Plan View Sketch



Include the following in the field sketch for:

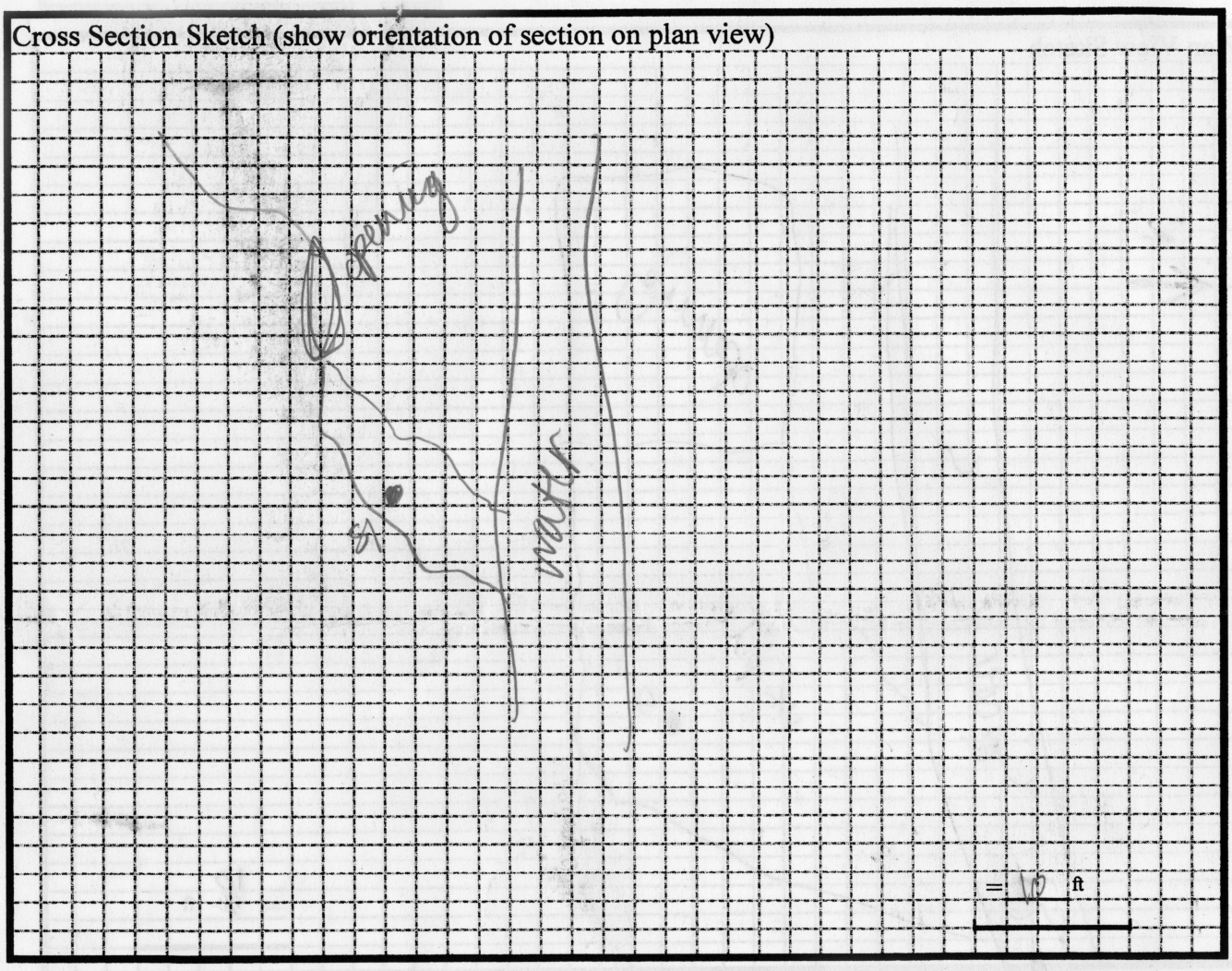
North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Footprint(s) of:
Mills
Buildings
Structures
Mining-Related Piles
Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)
Slope Direction

Feature ID	Weden 2
Date	7-12-11
Weather	Overcast

Cross Section Sketch (show orientation of section on plan view)



Include the following in the field sketch for:

X - X' Cross Section Orientation
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

Location(s) of:
- Mills
- Buildings
- Structures
- Mining-Related Piles
- Other

Surface Water (Ponds, Seeps, Etc.)
GPS Collection Location ☼
Elevation (Topographic Variation)



Photograph 1 - Mackinaw Tunnel No. 2 (Weden 2) located on south bank of steep drainage channel.



Photograph 2 - Facing east-southeast, Mackinaw Tunnel No. 2 opening.



Photograph 3 - Sampling pit (S1) in middle of waste rock pile; water flowing through the waste rock pile to adjacent channel.

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for double-sided printing.

APPENDIX B
CHEMICAL DATA QUALITY REVIEW AND LABORATORY REPORTS

APPENDIX B
CHEMICAL DATA QUALITY REVIEW AND LABORATORY REPORTS

CHEMICAL DATA QUALITY REVIEW

Ninety-three soil samples were collected during four sampling events in July through September 2011. The samples were submitted for chemical analysis to TestAmerica Seattle (TAS), of Tacoma, Washington. The sample results were reported under TAS Job Numbers 580-27549-1, 580-28356-1, 580-28720-1, and 580-29110-1.

The soil samples were analyzed for the following:

- Total iron, potassium, calcium, and magnesium by EPA Method 6010B;
- Total arsenic, aluminum, antimony, beryllium, cadmium, chromium, copper, lead, manganese, nickel, selenium, silver, thallium, zinc, barium, sodium, vanadium, and cobalt by EPA Method 6020;
- Total mercury by EPA Method 7471A;
- pH by EPA Method 9045C; and
- Percent solids.

One multi-incremental sample (Potomac 1) was submitted and analyzed under TAS Job Number 580-28356-1.

Quality assurance/quality control (QA/QC) reviews of laboratory procedures were performed on an ongoing basis by the laboratories. Hart Crowser reviewed the data, using laboratory quality control results summary sheets and raw data, as required, to ensure they met data quality objectives for the project. Data review followed the Sampling and Analysis Plan/Quality Assurance Project Plan, Monte Cristo Mining Area, dated August 10, 2011, and the format outlined in the National Functional Guidelines for Inorganic Data Review (EPA 2010) modified to include specific criteria of the individual analytical methods. The following elements were reviewed:

- Sampling documentation;
- Holding times and receiving temperatures;
- Reporting limits;
- Laboratory method blanks (metals only);
- Laboratory control sample/laboratory control sample duplicate (LCS/LCSD) recoveries (metals only);
- Matrix spike/matrix spike duplicate (MS/MSD) recoveries (metals only);

- Post-digestion spike (PS) recoveries(metals only);
- Serial dilution (metals only); and
- Laboratory duplicate relative percent differences (RPDs).

The data were acceptable for use with qualification as described in the sections below. Full laboratory results are presented at the end of this appendix.

Sample Documentation

Sample W-6 in laboratory job number 580-28720-1 was mislabeled on the chain of custody as W-16. Field notes confirmed that W-16 was collected on August 23, 2011, and was analyzed under laboratory job number 580-28356-1, while W-6 was collected on September 12, 2011, and was analyzed under laboratory job number 580-28720-1.

Holding Times and Receiving Temperatures

The sample coolers and samples were received intact at the laboratory and were within the required 0 to 6 degrees Celsius. Sample holding times were evaluated by comparing the sample collection dates to the sample extraction dates and analysis dates. Holding times were typically met for all samples. Samples from SDGs 580-28356-1, 580-28720-1, and 580-29110-1 were analyzed outside of holding times for pH, and results were qualified as estimated (J).

Reporting Limits

Reporting limits were elevated in some samples because of sample dilution. Such increases in the reporting limits are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument, or that reduces the interferences, thereby enabling quantification of target analytes.

Analyte detections between the method detection limit (MDL) and method reporting limit (RL) were qualified by the laboratory with J. The J qualifier was changed to T to be consistent with the Washington State Department of Ecology Environmental Information Management (EIM) database reporting requirements.

Laboratory Method Blanks

Method blanks were analyzed at the required frequency of at least one for every 20 samples or one per analytical batch, whichever was more frequent. Several method blanks had detections of metals above the MDL but below the RL.

Nickel was detected above the RL in laboratory report 580-28720-1. The laboratory qualified the associated samples with a "B" flag, indicating the compound was found in the blank and the sample. Concentrations in the associated samples were greater than five times the concentrations detected in the method blank and the "B" qualifier was removed. The following table summarizes the method blank detections.

Method Blank Detection

TAS Job Number	Analytical Method	Analyte(s) Detected in Blank	Associated Samples
580-27549-1	EPA 6010B	Potassium Calcium	Weden 1 S1 (0-6), Weden 1 S1 (6-12), Weden 1 S2 (0-6), Weden 1 S2 (6-12), Weden 2 S1 (0-6)
580-28356-1	EPA 6010B	Calcium Iron	G-5, Potomac 2 (0-6), Potomac 2 (6-12), Potomac 3 (0-6), Potomac 3 (6-12), IXL 1 (0-6), IXL 1 (6-12), IXL 2 (0-6), IXL 2 (6-12), W-8, W-16, W-11
580-28356-1	EPA 6010B	Iron	Potomac 1
580-28356-1	EPA 6020	Barium	W-12, W-10, W-9, W-13, W-15, W-14, G-1, G-2, G-3, and G-4
580-28720-1	EPA 6010B	Calcium Iron	76 S-2 0-6, 76 S-1 0-6, 76-9, 76-14, 76-15, 76-12, 76-18, 76-17, 76-13, 76-16, 76-10, 76-1, 76-4, 76-11, 76-5, 76-3, 76-6
580-28720-1	EPA 6010B	Iron	G-11, G-6, 74 S-2 0-6, 74 S-1 0-6, G-10, Emma 2 S-2 6-12, Emma 2 S-1 0-6, Emma 2 S-2 0-6
580-28720-1	EPA 6020	Nickel Cobalt	76 S-2 0-6, 76 S-1 0-6, 76-9, 76-14, 76-15, 76-12, 76-18, 76-17, 76-13, 76-16, 76-10, 76-1, 76-4, 76-11, 76-5, 76-3, 76-6
580-29110-1	EPA 6010B	Calcium Iron	PUSHER S-1 0-6, PUSHER S-1 6-12, PUSHER S-2 0-6, PUSHER S-2 6-12, PUSHER S-3 0-6, PUSHER S-3 6-12, IBEX S1 0-6, IBEX S2 0-6, O+B UPPER S1 0-6, O+B UPPER S2 0-6, O+B UPPER S3 0-6, O+B LOWER S1 0-6, O+B LOWER S2 0-6, 76-7, 76-8, CONGRESS S1 0-6, CONGRESS S1 6-12
580-29110-1	EPA 6010B	Iron	PORTLAND 2 S1 0-6, PORTLAND 2 S1 6-12,PORTLAND 2 S2 0-6, CONGRESS S2 0-6, CONGRESS S2 6-12, and PORTLAND 2S2
580-29110-1	EPA 6020	Barium	PORTLAND 2 S1 0-6, PORTLAND 2 S1 6-12, PORTLAND 2 S2 0-6, CONGRESS S2 0-6, CONGRESS S2 6-12, and PORTLAND 2 S2 6-12

Laboratory Control Sample (LCS)

Laboratory control samples and laboratory control sample duplicates are analyzed by the laboratory to assess the accuracy of the analytical equipment. The LCS and LSCD samples are prepared from analyte-free matrix, which is then spiked with known levels of the analytes of concern. The concentrations are measured and the results are compared to the known spiked levels. All LCS and LCSD recoveries were within control limits. RPDs between the LCS and LCSD were also within control limits.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

The matrix spike and matrix spike duplicate samples are a portion of a field sample spiked with target analytes and are prepared with each analytical batch used to assess accuracy. Results from these analyses provide information on the extent of any signal suppression or enhancement due to matrix interference. The RPD between MS and MSD recoveries are used to assess precision. The QAPP control limits for MS and MSD recoveries are from 75 to 125 percent and laboratory control limits are from 80 to 120 percent.

MS and MSD recoveries were above or below control limits for several metals. In many cases, recoveries were outside control limits because high levels of the spiked analyte were present in the source sample. Spike recovery limits are not applicable when the sample concentration is greater than four times the spike added, and in these cases the results were not qualified.

Samples without high source concentrations were qualified as an estimate when recoveries were outside of control limits for both the MS and MSD. LCS recoveries were within control limits for all samples, implying MS and MSD failures were because of a matrix effect and, therefore, only the source samples (i.e., the ones that were spiked) were qualified as estimated.

The table below provides the samples that were qualified as estimated (J) because the MS or MSD recoveries were outside of control limits.

Matrix Spike/Matrix Spike Duplicate Recovery

TAS Job Number	Analytical Method	Spiked Sample	Analytes
580-27549-1	EPA 6020	Weden 1 S1 (6-12)	Antimony Chromium Nickel
580-28356-1	EPA 6020	W-12	Antimony Chromium Copper Manganese Zinc
580-28356-1	EPA 6020	G-5	Sodium
580-28356-1	EPA 6010B	Potomac 1	Calcium
580-28356-1	EPA 6020	Potomac 1	Antimony Sodium Zinc
580-28720-1	EPA 6010B	G-11	Calcium
580-28720-1	EPA 6020	76 S-2 0-6	Vanadium
580-28720-1	EPA 6020	76-2	Antimony
580-28720-1	EPA 6020	W-21	Antimony Sodium Zinc
580-29110-1	EPA 6020	PUSHER S-1 0-6	Antimony Arsenic
580-29110-1	EPA 6010B	PORTLAND 2 S1 0-6	Potassium
580-29110-1	EPA 6020	PORTLAND 2 S1 0-6	Antimony

Post-Digestion Spike

The post-digestion spike involves spiking the sample with a known concentration of reagent after completion of the digestion procedures. Post-digestion spikes are not applicable when there are high levels of the analyte in the source sample. There were a few samples with post-spike recoveries outside of control limits that were already qualified as estimated (J) because MS and MSD recoveries were outside control limits. Two samples were qualified due solely to post-spike recoveries. The table below provides the samples that were qualified as estimated (J) because the post-spike recoveries were outside of control limits.

Post-Spike Recovery

TAS Job Number	Analytical Method	Spiked Sample	Analytes
580-28356-1	EPA 6020	Potomac 1	Vanadium
580-29110-1	EPA 6020	PORTLAND 2 S1 0-6	Cadmium

Serial Dilution

The serial dilution determines whether significant physical or chemical interferences exist due to sample matrix. The serial dilution results were acceptable for all samples except those presented in the table below that were qualified as an estimate (J) because the RPD in the serial dilution exceeded the laboratory control limit.

Serial Dilution

TAS Job Number	Analytical Method	Sample	Analytes
580-28356-1	EPA 6020	G-5	Copper Lead Copper

Laboratory Duplicate

Laboratory duplicates were prepared with each analytical batch by extracting a second separate aliquot of a sample. The laboratory duplicates were evaluated to assess analytical precision of the method and potential variability of the sample matrix. Laboratory duplicate RPDs were within control limits.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 580-27549-1

Job Description: Monte Cristo WA. (17800-06)

For:
Hart Crowser, Inc.
1700 Westlake Avenue N
Suite 200
Seattle, WA 98109-3056

Attention: Roger McGinnis

Approved for release.
Terri L Torres
Project Manager II
8/4/2011 4:20 PM

Designee for
Kristine Allen
Project Manager I
kristine.allen@testamericainc.com
08/04/2011
Revision: 1

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This report shall not be reproduced except in full, without prior express written approval by the laboratory. The results relate only to the item(s) tested and the sample(s) as received by the laboratory.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

TestAmerica Laboratories, Inc.
TestAmerica Seattle 5755 8th Street East, Tacoma, WA 98424
Tel (253) 922-2310 Fax (253) 922-5047 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

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CASE NARRATIVE

Client: Hart Crowser, Inc.
Project: Monte Cristo WA. (17800-06)
Report Number: 580-27549-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interfererences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 07/21/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 1.0 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)
Samples Weden 1 S1 (0-6) (580-27549-1), Weden 1 S1 (6-12) (580-27549-2), Weden 1 S2 (0-6) (580-27549-3), Weden 1 S2 (6-12) (580-27549-4) and Weden 2 S1 (0-6) (580-27549-5) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 07/25/2011 and analyzed on 07/26/2011 and 07/27/2011.

Samples Weden 1 S1 (0-6) (580-27549-1)[100X], Weden 1 S1 (6-12) (580-27549-2)[100X], Weden 1 S2 (0-6) (580-27549-3)[100X], Weden 1 S2 (6-12) (580-27549-4)[100X] and Weden 2 S1 (0-6) (580-27549-5)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Calcium and Potassium were detected in method blank MB 580-91183/13-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged "J". If the associated sample reported a result above the MDL and/or RL, the result has been "B" flagged.

Recovery values for Iron and Magnesium in the matrix spike / matrix spike duplicate of sample Weden 1 S1 (6-12) (580-27549-2) were outside advisory QC limits due to high concentration of the analytes in the original sample. The analytes present in the original sample are four times greater than the matrix spike concentration; therefore, control limits are not applicable.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)
Samples Weden 1 S1 (0-6) (580-27549-1), Weden 1 S1 (6-12) (580-27549-2), Weden 1 S2 (0-6) (580-27549-3), Weden 1 S2 (6-12) (580-27549-4) and Weden 2 S1 (0-6) (580-27549-5) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 07/25/2011 and analyzed on 07/26/2011.

Recovery values several compounds in the matrix spike/matrix spike duplicate of sample Weden 1 S1 (6-12) (580-27549-2) were outside advisory QC limits due to high concentration of the analyte in the original sample. The analyte present in the original sample is four times greater than the matrix spike concentration; therefore, control limits are not applicable.

Recovery values for several compounds in the matrix spike/matrix spike duplicate of sample Weden 1 S1 (6-12) (580-27549-2) were outside advisory QC limits. Matrix interference is indicated based on acceptable LCS/LCSD recovery and/or RPD.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples Weden 1 S1 (0-6) (580-27549-1), Weden 1 S1 (6-12) (580-27549-2), Weden 1 S2 (0-6) (580-27549-3), Weden 1 S2 (6-12) (580-27549-4) and Weden 2 S1 (0-6) (580-27549-5) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 07/26/2011.

Recovery values for Mercury in the matrix spike/matrix spike duplicate of sample Weden 2 S1 (0-6) (580-27549-5) were outside advisory QC limits. Matrix interference is indicated based on acceptable LCS/LCSD recovery and/or RPD.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Samples Weden 1 S1 (0-6) (580-27549-1), Weden 1 S1 (6-12) (580-27549-2), Weden 1 S2 (0-6) (580-27549-3), Weden 1 S2 (6-12) (580-27549-4) and Weden 2 S1 (0-6) (580-27549-5) were analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045C. The samples were analyzed on 07/25/2011.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples Weden 1 S1 (0-6) (580-27549-1), Weden 1 S1 (6-12) (580-27549-2), Weden 1 S2 (0-6) (580-27549-3), Weden 1 S2 (6-12) (580-27549-4) and Weden 2 S1 (0-6) (580-27549-5) were analyzed for percent solids in accordance with EPA SW846 3550C. The samples were analyzed on 07/25/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-27549-1	Weden 1 S1 (0-6)	Solid	07/09/2011 1600	07/21/2011 1030
580-27549-2	Weden 1 S1 (6-12)	Solid	07/09/2011 1610	07/21/2011 1030
580-27549-3	Weden 1 S2 (0-6)	Solid	07/12/2011 1304	07/21/2011 1030
580-27549-4	Weden 1 S2 (6-12)	Solid	07/12/2011 1310	07/21/2011 1030
580-27549-5	Weden 2 S1 (0-6)	Solid	07/12/2011 1530	07/21/2011 1030

METHOD SUMMARY

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Metals (ICP)	TAL SEA	SW846 6010B	
Preparation, Metals	TAL SEA		SW846 3050B
Metals (ICP/MS)	TAL SEA	SW846 6020	
Preparation, Metals	TAL SEA		SW846 3050B
Mercury (CVAA)	TAL SEA	SW846 7471A	
Preparation, Mercury	TAL SEA		SW846 7471A
pH	TAL SEA	SW846 9045C	
Percent Moisture	TAL SEA	EPA Moisture	

Lab References:

TAL SEA = TestAmerica Seattle

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 1 S1 (0-6)**

Lab Sample ID: 580-27549-1 Date Sampled: 07/09/2011 1600
Client Matrix: Solid % Moisture: 2.6 Date Received: 07/21/2011 1030

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-91328	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0			Initial Weight/Volume:	1.0023 g
Analysis Date:	07/26/2011 1848			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		740	B	16	170
Calcium		2400	B	3.2	56
Magnesium		16000		3.3	56

Analysis Method:	6010B	Analysis Batch:	580-91396	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.p
Dilution:	100			Initial Weight/Volume:	1.0023 g
Analysis Date:	07/27/2011 1227			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		38000		62	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-91299	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	081SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0023 g
Analysis Date:	07/26/2011 1434			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		8.8		0.18	0.51
Aluminum		22000		3.1	31
Antimony		0.54		0.043	0.20
Beryllium		0.38		0.023	0.20
Cadmium		0.26		0.0082	0.20
Chromium		80		0.074	0.20
Copper		65		0.10	0.20
Lead		12		0.011	0.20
Manganese		1300		0.11	0.51
Nickel		130		0.073	0.20
Selenium		0.71	J	0.21	0.72
Silver		0.087	J	0.0072	0.20
Thallium		0.14	J	0.13	0.51
Zinc		65		0.33	0.72
Barium		62		0.023	0.20
Sodium		88	J	40	100
Vanadium		69		0.48	0.72
Cobalt		21		0.019	0.20

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 1 S1 (0-6)**

Lab Sample ID: 580-27549-1 Date Sampled: 07/09/2011 1600
Client Matrix: Solid % Moisture: 2.6 Date Received: 07/21/2011 1030

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-91309	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.5905 g
Analysis Date:	07/26/2011 1328			Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1032				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.14		0.0055	0.017

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 1 S1 (6-12)**

Lab Sample ID: 580-27549-2 Date Sampled: 07/09/2011 1610
Client Matrix: Solid % Moisture: 30.8 Date Received: 07/21/2011 1030

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-91328	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0			Initial Weight/Volume:	1.0086 g
Analysis Date:	07/26/2011 1758			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		680	B	23	240
Calcium		1900	B	4.4	79
Magnesium		13000		4.6	79

Analysis Method:	6010B	Analysis Batch:	580-91396	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.p
Dilution:	100			Initial Weight/Volume:	1.0086 g
Analysis Date:	07/27/2011 1147			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		43000		87	1400

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-91299	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	059SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0086 g
Analysis Date:	07/26/2011 1310			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		12		0.26	0.72
Aluminum		28000		4.3	43
Antimony		0.33		0.060	0.29
Beryllium		0.44		0.032	0.29
Cadmium		0.36		0.011	0.29
Chromium		77		0.10	0.29
Copper		71		0.14	0.29
Lead		11		0.016	0.29
Manganese		1100		0.15	0.72
Nickel		110		0.10	0.29
Selenium		0.84	J	0.29	1.0
Silver		0.14	J	0.010	0.29
Thallium		0.21	J	0.19	0.72
Zinc		73		0.46	1.0
Barium		65		0.032	0.29
Sodium		90	J	56	140
Vanadium		81		0.68	1.0
Cobalt		21		0.027	0.29

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 1 S1 (6-12)**

Lab Sample ID: 580-27549-2 Date Sampled: 07/09/2011 1610
Client Matrix: Solid % Moisture: 30.8 Date Received: 07/21/2011 1030

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-91309	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6993 g
Analysis Date:	07/26/2011 1330			Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1032				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.14		0.0065	0.021

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 1 S2 (0-6)**

Lab Sample ID: 580-27549-3 Date Sampled: 07/12/2011 1304
Client Matrix: Solid % Moisture: 3.2 Date Received: 07/21/2011 1030

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-91328	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0			Initial Weight/Volume:	1.1262 g
Analysis Date:	07/26/2011 1855			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		750	B	15	150
Calcium		2500	B	2.8	50
Magnesium		25000		2.9	50

Analysis Method:	6010B	Analysis Batch:	580-91396	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.p
Dilution:	100			Initial Weight/Volume:	1.1262 g
Analysis Date:	07/27/2011 1233			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		53000		56	920

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-91299	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	082SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1262 g
Analysis Date:	07/26/2011 1438			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		13		0.17	0.46
Aluminum		32000		2.8	28
Antimony		0.30		0.039	0.18
Beryllium		0.54		0.020	0.18
Cadmium		0.22		0.0073	0.18
Chromium		140		0.066	0.18
Copper		86		0.090	0.18
Lead		9.8		0.010	0.18
Manganese		970		0.096	0.46
Nickel		260		0.065	0.18
Selenium		0.99		0.19	0.64
Silver		0.084	J	0.0064	0.18
Thallium		0.13	J	0.12	0.46
Zinc		84		0.29	0.64
Barium		81		0.020	0.18
Sodium		91	J	36	92
Vanadium		97		0.43	0.64
Cobalt		33		0.017	0.18

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 1 S2 (0-6)**

Lab Sample ID: 580-27549-3 Date Sampled: 07/12/2011 1304
Client Matrix: Solid % Moisture: 3.2 Date Received: 07/21/2011 1030

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-91309	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6563 g
Analysis Date:	07/26/2011 1335			Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1032				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.090		0.0050	0.016

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 1 S2 (6-12)**

Lab Sample ID: 580-27549-4 Date Sampled: 07/12/2011 1310
Client Matrix: Solid % Moisture: 2.4 Date Received: 07/21/2011 1030

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-91328	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0			Initial Weight/Volume:	1.1695 g
Analysis Date:	07/26/2011 1902			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		840	B	14	140
Calcium		2900	B	2.7	48
Magnesium		23000		2.8	48

Analysis Method:	6010B	Analysis Batch:	580-91396	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.p
Dilution:	100			Initial Weight/Volume:	1.1695 g
Analysis Date:	07/27/2011 1238			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		51000		53	880

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-91299	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	083SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1695 g
Analysis Date:	07/26/2011 1442			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		15		0.16	0.44
Aluminum		32000		2.6	26
Antimony		0.36		0.037	0.18
Beryllium		0.58		0.019	0.18
Cadmium		0.25		0.0070	0.18
Chromium		130		0.063	0.18
Copper		88		0.086	0.18
Lead		11		0.0096	0.18
Manganese		970		0.092	0.44
Nickel		250		0.062	0.18
Selenium		1.1		0.18	0.61
Silver		0.10	J	0.0061	0.18
Thallium		0.13	J	0.11	0.44
Zinc		81		0.28	0.61
Barium		110		0.019	0.18
Sodium		120		34	88
Vanadium		96		0.41	0.61
Cobalt		31		0.017	0.18

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 1 S2 (6-12)**

Lab Sample ID: 580-27549-4 Date Sampled: 07/12/2011 1310
Client Matrix: Solid % Moisture: 2.4 Date Received: 07/21/2011 1030

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-91309	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6109 g
Analysis Date:	07/26/2011 1336			Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1032				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.11		0.0053	0.017

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 2 S1 (0-6)**

Lab Sample ID: 580-27549-5 Date Sampled: 07/12/2011 1530
Client Matrix: Solid % Moisture: 5.8 Date Received: 07/21/2011 1030

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-91328	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0			Initial Weight/Volume:	1.1221 g
Analysis Date:	07/26/2011 1908			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		2000	B	15	160
Calcium		2300	B	2.9	52
Magnesium		9600		3.0	52

Analysis Method:	6010B	Analysis Batch:	580-91396	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.p
Dilution:	100			Initial Weight/Volume:	1.1221 g
Analysis Date:	07/27/2011 1244			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		16000		58	950

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-91299	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-91183	Lab File ID:	084SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1221 g
Analysis Date:	07/26/2011 1445			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		33		0.17	0.47
Aluminum		13000		2.8	28
Antimony		0.35		0.040	0.19
Beryllium		0.93		0.021	0.19
Cadmium		0.21		0.0076	0.19
Chromium		75		0.068	0.19
Copper		74		0.093	0.19
Lead		14		0.010	0.19
Manganese		240		0.099	0.47
Nickel		110		0.067	0.19
Selenium		0.81		0.19	0.66
Silver		0.080	J	0.0066	0.19
Thallium		0.23	J	0.12	0.47
Zinc		31		0.30	0.66
Barium		120		0.021	0.19
Sodium		94	J	37	95
Vanadium		14		0.45	0.66
Cobalt		18		0.018	0.19

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Client Sample ID: **Weden 2 S1 (0-6)**

Lab Sample ID: 580-27549-5 Date Sampled: 07/12/2011 1530
Client Matrix: Solid % Moisture: 5.8 Date Received: 07/21/2011 1030

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-91309	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6900 g
Analysis Date:	07/26/2011 1321			Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1032				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.064		0.0048	0.015

General Chemistry

Client Sample ID: **Weden 1 S1 (0-6)**

Lab Sample ID: 580-27549-1 Date Sampled: 07/09/2011 1600
Client Matrix: Solid Date Received: 07/21/2011 1030

Analyte	Result	Qual	Units	Dil	Method
pH	4.93		SU	1.0	9045C
Analysis Batch: 580-91154	Analysis Date: 07/25/2011 1159				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N
Percent Moisture	2.6		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N

General Chemistry

Client Sample ID: **Weden 1 S1 (6-12)**

Lab Sample ID: 580-27549-2 Date Sampled: 07/09/2011 1610
Client Matrix: Solid Date Received: 07/21/2011 1030

Analyte	Result	Qual	Units	Dil	Method
pH	5.12		SU	1.0	9045C
Analysis Batch: 580-91154	Analysis Date: 07/25/2011 1159				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	69		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N
Percent Moisture	31		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N

General Chemistry

Client Sample ID: **Weden 1 S2 (0-6)**

Lab Sample ID: 580-27549-3 Date Sampled: 07/12/2011 1304

Client Matrix: Solid Date Received: 07/21/2011 1030

Analyte	Result	Qual	Units	Dil	Method
pH	6.52		SU	1.0	9045C
Analysis Batch: 580-91154	Analysis Date: 07/25/2011 1159				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N
Percent Moisture	3.2		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N

General Chemistry

Client Sample ID: **Weden 1 S2 (6-12)**

Lab Sample ID: 580-27549-4 Date Sampled: 07/12/2011 1310
Client Matrix: Solid Date Received: 07/21/2011 1030

Analyte	Result	Qual	Units	Dil	Method
pH	6.46		SU	1.0	9045C
Analysis Batch: 580-91154	Analysis Date: 07/25/2011 1159				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	98		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N
Percent Moisture	2.4		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N

General Chemistry

Client Sample ID: **Weden 2 S1 (0-6)**

Lab Sample ID: 580-27549-5 Date Sampled: 07/12/2011 1530
Client Matrix: Solid Date Received: 07/21/2011 1030

Analyte	Result	Qual	Units	Dil	Method
pH	6.97		SU	1.0	9045C
Analysis Batch: 580-91154	Analysis Date: 07/25/2011 1159				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	94		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N
Percent Moisture	5.8		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-91191	Analysis Date: 07/25/2011 1604						DryWt Corrected: N

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Method Blank - Batch: 580-91183 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-91183/13-A	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/26/2011 1727	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Potassium	16.6	J	16	170
Calcium	3.85	J	3.1	55
Magnesium	ND		3.2	55

Method Blank - Batch: 580-91183 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-91183/13-A	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/27/2011 1117	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Iron	ND		0.61	10

Client: Hart Crowser, Inc. Job Number: 580-27549-1

LCS-Certified Reference Material - Batch: 580-91183 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5013 g
Analysis Date:	07/26/2011 1746	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	2770	2370	85	65.0 - 135.0	
Calcium	6700	6980	104	75.4 - 124.0	
Magnesium	2980	2680	90	70.0 - 130.0	

LCS-Certified Reference Material - Batch: 580-91183 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5013 g
Analysis Date:	07/27/2011 1135	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	13100	11800	90	41.6 - 159.1	

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-91183

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-91183/14-A	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/26/2011 1733	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-91183/15-A	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/26/2011 1739	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Potassium	99	98	80 - 120	0	20		
Calcium	101	98	80 - 120	3	20		
Magnesium	96	97	80 - 120	1	20		

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-91183

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-91183/14-A	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/27/2011 1123	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-91183/15-A	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/27/2011 1130	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Iron	104	105	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-91183

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-91183/14-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-91183/15-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/26/2011 1733			Analysis Date:	07/26/2011 1739
Prep Date:	07/25/2011 1445			Prep Date:	07/25/2011 1445
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Potassium	1000	1000	988	984
Calcium	1000	1000	1010	981
Magnesium	1000	1000	960	974

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-91183

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-91183/14-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-91183/15-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/27/2011 1123			Analysis Date:	07/27/2011 1130
Prep Date:	07/25/2011 1445			Prep Date:	07/25/2011 1445
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Iron	1100	1100	1140	1150

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Post Digestion Spike - Batch: 580-91183

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0086 g
Analysis Date:	07/26/2011 1824	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	680	1430	2010	93		
Calcium	1900	1430	3100	81		
Magnesium	13000	1430	12900	9	75 - 125	W

Post Digestion Spike - Batch: 580-91183

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0086 g
Analysis Date:	07/27/2011 1221	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Iron	43000	1580	34000	NC	75 - 125	

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-91183

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-27549-2	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0122 g
Analysis Date:	07/26/2011 1811			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

MSD Lab Sample ID:	580-27549-2	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0440 g
Analysis Date:	07/26/2011 1818			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Potassium	100	96	80 - 120	5	20		
Calcium	97	87	80 - 120	6	20		
Magnesium	152	204	80 - 120	4	20	4	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-91183

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-27549-2	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0122 g
Analysis Date:	07/27/2011 1210			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

MSD Lab Sample ID:	580-27549-2	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0440 g
Analysis Date:	07/27/2011 1216			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	-15	-313	80 - 120	11	20	4	4

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-91183

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-27549-2	Units: mg/Kg	MSD Lab Sample ID:	580-27549-2	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	07/26/2011 1811		Analysis Date:	07/26/2011 1818	
Prep Date:	07/25/2011 1445		Prep Date:	07/25/2011 1445	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Potassium	680	1430	1380	2110		2010	
Calcium	1900	1430	1380	3340		3150	
Magnesium	13000	1430	1380	15000	4	15600	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-91183

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-27549-2	Units: mg/Kg	MSD Lab Sample ID:	580-27549-2	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	100		Dilution:	100	
Analysis Date:	07/27/2011 1210		Analysis Date:	07/27/2011 1216	
Prep Date:	07/25/2011 1445		Prep Date:	07/25/2011 1445	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Iron	43000	1570	1520	42600	4	38100	4

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Serial Dilution - Batch: 580-91183

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0086 g
Analysis Date:	07/26/2011 1752	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Potassium	680	720	NC		J
Calcium	1900	2130	9.4		
Magnesium	13000	12600	2.0	10	

Duplicate - Batch: 580-91183

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91328	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91205-91183.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1344 g
Analysis Date:	07/26/2011 1805	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Potassium	680	729	7	20	
Calcium	1900	1860	5	20	
Magnesium	13000	14300	11	20	

Serial Dilution - Batch: 580-91183

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	500	Leach Batch:	N/A	Initial Weight/Volume:	1.0086 g
Analysis Date:	07/27/2011 1141	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Iron	43000	40800	4.8	10	

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Duplicate - Batch: 580-91183

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91396	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	580-91183-91205Fe.pr
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.1344 g
Analysis Date:	07/27/2011 1153	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Iron	43000	39800	7	20	

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Method Blank - Batch: 580-91183

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 580-91183/13-A	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	052SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/26/2011 1244	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Arsenic	ND		0.18	0.50
Aluminum	ND		3.0	30
Antimony	ND		0.042	0.20
Beryllium	ND		0.022	0.20
Cadmium	ND		0.0080	0.20
Chromium	ND		0.072	0.20
Copper	ND		0.098	0.20
Lead	ND		0.011	0.20
Manganese	ND		0.11	0.50
Nickel	ND		0.071	0.20
Selenium	ND		0.20	0.70
Silver	ND		0.0070	0.20
Thallium	ND		0.13	0.50
Zinc	ND		0.32	0.70
Barium	ND		0.022	0.20
Sodium	ND		39	100
Vanadium	ND		0.47	0.70
Cobalt	ND		0.019	0.20

Client: Hart Crowser, Inc. Job Number: 580-27549-1

LCS-Certified Reference Material - Batch: 580-91183

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	055SMPL.D#.raw
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.5013 g
Analysis Date:	07/26/2011 1255	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	109	112	103	71.1 - 128.9	
Aluminum	9780	8220	84	46.0 - 153.8	
Antimony	121	226	187	21.0 - 251.6	
Beryllium	92.1	89.5	97	75.3 - 124.7	
Cadmium	110	115	105	73.2 - 126.8	
Chromium	93.4	93.9	101	69.9 - 129.8	
Copper	84.7	72.9	86	73.2 - 126.8	
Lead	152	168	111	75.3 - 125.1	
Manganese	443	486	110	75.8 - 124.5	
Nickel	109	113	103	73.8 - 126.7	
Selenium	207	227	110	67.1 - 132.7	
Silver	51.9	52.6	101	65.6 - 134.4	
Thallium	171	176	103	68.8 - 131.2	
Zinc	299	307	103	72.2 - 127.8	
Barium	325	339	104	74.7 - 125.5	
Sodium	724	709	98	52.0 - 148.0	
Vanadium	110	115	104	64.5 - 135.3	
Cobalt	133	143	107	74.5 - 126.1	

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-91183

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-91183/14-A	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	053SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/26/2011 1248	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-91183/15-A	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	054SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	07/26/2011 1252	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Arsenic	99	99	80 - 120	0	20		
Aluminum	101	101	80 - 120	0	20		
Antimony	95	96	80 - 120	1	20		
Beryllium	96	98	80 - 120	2	20		
Cadmium	103	98	80 - 120	5	20		
Chromium	97	100	80 - 120	4	20		
Copper	100	101	80 - 120	1	20		
Lead	99	99	80 - 120	1	20		
Manganese	101	101	80 - 120	0	20		
Nickel	98	100	80 - 120	2	20		
Selenium	102	101	80 - 120	1	20		
Silver	99	99	80 - 120	0	20		
Thallium	91	93	80 - 120	3	20		
Zinc	99	110	80 - 120	10	20		
Barium	99	100	80 - 120	1	20		
Sodium	96	96	80 - 120	1	20		
Vanadium	99	100	80 - 120	0	20		
Cobalt	98	98	80 - 120	0	20		

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-91183

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-91183/14-A	Units: mg/Kg		LCSD Lab Sample ID:	LCSD 580-91183/15-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	07/26/2011 1248			Analysis Date:	07/26/2011 1252
Prep Date:	07/25/2011 1445			Prep Date:	07/25/2011 1445
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Arsenic	200	200	197	198
Aluminum	200	200	202	201
Antimony	150	150	143	144
Beryllium	5.00	5.00	4.82	4.91
Cadmium	5.00	5.00	5.15	4.91
Chromium	20.0	20.0	19.3	20.0
Copper	25.0	25.0	24.9	25.2
Lead	50.0	50.0	49.3	49.6
Manganese	50.0	50.0	50.6	50.4
Nickel	50.0	50.0	49.1	50.0
Selenium	200	200	203	202
Silver	30.0	30.0	29.8	29.8
Thallium	200	200	181	186
Zinc	50.0	50.0	49.5	54.9
Barium	200	200	197	200
Sodium	1000	1000	963	956
Vanadium	50.0	50.0	49.5	49.8
Cobalt	50.0	50.0	49.1	49.1

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Post Digestion Spike - Batch: 580-91183

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	06
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0086 g
Analysis Date:	07/26/2011 1326	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Arsenic	12		287	296	99	75 - 125	
Aluminum	28000		287	26100	NC	75 - 125	
Antimony	0.33		215	211	98	75 - 125	
Beryllium	0.44		7.17	7.30	96	75 - 125	
Cadmium	0.36		7.17	6.95	92	75 - 125	
Chromium	77		28.7	94.5	60	75 - 125	W
Copper	71		35.8	97.7	75	75 - 125	
Lead	11		71.7	82.5	100	75 - 125	
Manganese	1100		71.7	1070	NC	75 - 125	
Nickel	110		71.7	172	81	75 - 125	
Selenium	0.84	J	287	294	102	75 - 125	
Silver	0.14	J	43.0	42.7	99	75 - 125	
Thallium	0.21	J	287	302	105	75 - 125	
Zinc	73		71.7	134	84	75 - 125	
Barium	65		287	345	98	75 - 125	
Sodium	90	J	1430	1450	95	75 - 125	
Vanadium	81		71.7	142	84	75 - 125	
Cobalt	21		71.7	87.8	93	75 - 125	

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-91183

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-27549-2	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	061SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0122 g
Analysis Date:	07/26/2011 1318			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

MSD Lab Sample ID:	580-27549-2	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	062SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0440 g
Analysis Date:	07/26/2011 1322			Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Arsenic	106	108	80 - 120	2	20		
Aluminum	1370	1878	80 - 120	4	20	4	4
Antimony	51	51	80 - 120	3	20	F	F
Beryllium	103	102	80 - 120	4	20		
Cadmium	108	112	80 - 120	0	20		
Chromium	132	145	80 - 120	2	20	F	F
Copper	116	125	80 - 120	2	20		F
Lead	108	111	80 - 120	0	20		
Manganese	265	342	80 - 120	4	20	4	4
Nickel	128	145	80 - 120	4	20	F	F
Selenium	110	112	80 - 120	0	20		
Silver	105	108	80 - 120	1	20		
Thallium	110	113	80 - 120	0	20		
Zinc	110	120	80 - 120	3	20		
Barium	113	116	80 - 120	0	20		
Sodium	104	110	80 - 120	3	20		
Vanadium	122	130	80 - 120	2	20	F	F
Cobalt	105	110	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-91183

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-27549-2	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	07/26/2011 1318		
Prep Date:	07/25/2011 1445		
Leach Date:	N/A		

MSD Lab Sample ID:	580-27549-2
Client Matrix:	Solid
Dilution:	50
Analysis Date:	07/26/2011 1322
Prep Date:	07/25/2011 1445
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Arsenic	12		286	277	315		310	
Aluminum	28000		286	277	32200	4	33500	4
Antimony	0.33		214	208	110	F	107	F
Beryllium	0.44		7.14	6.92	7.83		7.48	
Cadmium	0.36		7.14	6.92	8.10		8.12	
Chromium	77		28.6	27.7	115	F	118	F
Copper	71		35.7	34.6	112		114	F
Lead	11		71.4	69.2	88.1		87.8	
Manganese	1100		71.4	69.2	1270	4	1320	4
Nickel	110		71.4	69.2	206	F	215	F
Selenium	0.84	J	286	277	314		312	
Silver	0.14	J	42.8	41.5	45.0		44.8	
Thallium	0.21	J	286	277	314		314	
Zinc	73		71.4	69.2	152		156	
Barium	65		286	277	387		385	
Sodium	90	J	1430	1380	1570		1620	
Vanadium	81		71.4	69.2	168	F	171	F
Cobalt	21		71.4	69.2	96.3		97.1	

Serial Dilution - Batch: 580-91183

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	058
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0086 g
Analysis Date:	07/26/2011 1307	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Arsenic	12		11.1	NC	10	
Aluminum	28000		28600	1.2	10	
Antimony	0.33		0.426	NC	10	J
Beryllium	0.44		0.456	NC	10	J
Cadmium	0.36		0.301	NC	10	J
Chromium	77		75.0	3.1	10	
Copper	71		71.4	1.1	10	
Lead	11		10.9	0.52	10	
Manganese	1100		1110	2.5	10	
Nickel	110		115	0.13	10	
Selenium	0.84	J	ND	NC	10	
Silver	0.14	J	0.140	NC	10	J
Thallium	0.21	J	0.957	NC	10	J
Zinc	73		70.8	3.2	10	
Barium	65		65.1	0.87	10	
Sodium	90	J	ND	NC	10	
Vanadium	81		79.2	2.7	10	
Cobalt	21		20.9	1.3	10	

Duplicate - Batch: 580-91183

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	060SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.1344 g
Analysis Date:	07/26/2011 1314	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Arsenic	12		11.2	5	20	
Aluminum	28000		29000	3	20	
Antimony	0.33		0.294	11	20	
Beryllium	0.44		0.459	3	20	
Cadmium	0.36		0.300	19	20	
Chromium	77		78.4	1	20	
Copper	71		67.7	4	20	
Lead	11		10.9	0.7	20	
Manganese	1100		1120	4	20	
Nickel	110		128	11	20	
Selenium	0.84	J	0.835	0.9	20	J

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Duplicate - Batch: 580-91183

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91299	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-91183	Lab File ID:	060SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.1344 g
Analysis Date:	07/26/2011 1314	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/25/2011 1445				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	0.14	J	0.146	2	20	J
Thallium	0.21	J	0.178	17	20	J
Zinc	73		71.4	2	20	
Barium	65		67.9	5	20	
Sodium	90	J	83.5	8	20	J
Vanadium	81		84.4	4	20	
Cobalt	21		21.2	0.07	20	

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Method Blank - Batch: 580-91239

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-91239/23-A	Analysis Batch:	580-91309	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	07/26/2011 1314	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1034				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0053	0.017

LCS-Certified Reference Material - Batch: 580-91239

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM	Analysis Batch:	580-91309	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.1011 g
Analysis Date:	07/26/2011 1319	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1034				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	18.2	111	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-91239

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-91239/24-A	Analysis Batch:	580-91309	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	07/26/2011 1316	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1034				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-91239/25-A	Analysis Batch:	580-91309	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	07/26/2011 1317	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1034				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	104	105	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-91239

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-91239/24-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-91239/25-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/26/2011 1316			Analysis Date:	07/26/2011 1317
Prep Date:	07/26/2011 1034			Prep Date:	07/26/2011 1034
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.167	0.167	0.173	0.175

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-91239

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-27549-5	Analysis Batch:	580-91309	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.7375 g
Analysis Date:	07/26/2011 1324			Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1032				
Leach Date:	N/A				

MSD Lab Sample ID:	580-27549-5	Analysis Batch:	580-91309	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6259 g
Analysis Date:	07/26/2011 1326			Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1032				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	122	112	80 - 120	6	20	F	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-91239

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-27549-5	Units:	mg/Kg	MSD Lab Sample ID:	580-27549-5
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	07/26/2011 1324			Analysis Date:	07/26/2011 1326
Prep Date:	07/26/2011 1032			Prep Date:	07/26/2011 1032
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual
Mercury	0.064	0.144	0.170	0.239	F	0.254

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Duplicate - Batch: 580-91239

Method: 7471A
Preparation: 7471A

Lab Sample ID:	580-27549-5	Analysis Batch:	580-91309	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-91239	Lab File ID:	91239-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6622 g
Analysis Date:	07/26/2011 1323	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	07/26/2011 1032				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.064	0.0603	5	20	

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Duplicate - Batch: 580-91191

Method: Moisture
Preparation: N/A

Lab Sample ID:	580-27549-2	Analysis Batch:	580-91191	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	07/25/2011 1604	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	69	68	1	20	
Percent Moisture	31	32	3	20	

DATA REPORTING QUALIFIERS

Client: Hart Crowser, Inc. Job Number: 580-27549-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	W	PS: Post-digestion spike was outside control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Client: Hart Crowser, Inc. Job Number: 580-27549-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-91183					
LCS 580-91183/14-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-91183/15-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-91183/16-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-91183/13-A	Method Blank	T	Solid	3050B	
580-27549-1	Weden 1 S1 (0-6)	T	Solid	3050B	
580-27549-2	Weden 1 S1 (6-12)	T	Solid	3050B	
580-27549-2DU	Duplicate	T	Solid	3050B	
580-27549-2MS	Matrix Spike	T	Solid	3050B	
580-27549-2MSD	Matrix Spike Duplicate	T	Solid	3050B	
580-27549-3	Weden 1 S2 (0-6)	T	Solid	3050B	
580-27549-4	Weden 1 S2 (6-12)	T	Solid	3050B	
580-27549-5	Weden 2 S1 (0-6)	T	Solid	3050B	
Prep Batch: 580-91239					
LCS 580-91239/24-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-91239/25-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-91239/26-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-91239/23-A	Method Blank	T	Solid	7471A	
580-27549-1	Weden 1 S1 (0-6)	T	Solid	7471A	
580-27549-2	Weden 1 S1 (6-12)	T	Solid	7471A	
580-27549-3	Weden 1 S2 (0-6)	T	Solid	7471A	
580-27549-4	Weden 1 S2 (6-12)	T	Solid	7471A	
580-27549-5	Weden 2 S1 (0-6)	T	Solid	7471A	
580-27549-5DU	Duplicate	T	Solid	7471A	
580-27549-5MS	Matrix Spike	T	Solid	7471A	
580-27549-5MSD	Matrix Spike Duplicate	T	Solid	7471A	
Analysis Batch:580-91299					
LCS 580-91183/14-A	Lab Control Sample	T	Solid	6020	580-91183
LCSD 580-91183/15-A	Lab Control Sample Duplicate	T	Solid	6020	580-91183
LCSSRM 580-91183/16-A	LCS-Certified Reference Material	T	Solid	6020	580-91183
MB 580-91183/13-A	Method Blank	T	Solid	6020	580-91183
580-27549-1	Weden 1 S1 (0-6)	T	Solid	6020	580-91183
580-27549-2	Weden 1 S1 (6-12)	T	Solid	6020	580-91183
580-27549-2DU	Duplicate	T	Solid	6020	580-91183
580-27549-2MS	Matrix Spike	T	Solid	6020	580-91183
580-27549-2MSD	Matrix Spike Duplicate	T	Solid	6020	580-91183
580-27549-3	Weden 1 S2 (0-6)	T	Solid	6020	580-91183
580-27549-4	Weden 1 S2 (6-12)	T	Solid	6020	580-91183
580-27549-5	Weden 2 S1 (0-6)	T	Solid	6020	580-91183

Client: Hart Crowser, Inc. Job Number: 580-27549-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-91309					
LCS 580-91239/24-A	Lab Control Sample	T	Solid	7471A	580-91239
LCSD 580-91239/25-A	Lab Control Sample Duplicate	T	Solid	7471A	580-91239
LCSSRM 580-91239/26-A	LCS-Certified Reference Material	T	Solid	7471A	580-91239
MB 580-91239/23-A	Method Blank	T	Solid	7471A	580-91239
580-27549-1	Weden 1 S1 (0-6)	T	Solid	7471A	580-91239
580-27549-2	Weden 1 S1 (6-12)	T	Solid	7471A	580-91239
580-27549-3	Weden 1 S2 (0-6)	T	Solid	7471A	580-91239
580-27549-4	Weden 1 S2 (6-12)	T	Solid	7471A	580-91239
580-27549-5	Weden 2 S1 (0-6)	T	Solid	7471A	580-91239
580-27549-5DU	Duplicate	T	Solid	7471A	580-91239
580-27549-5MS	Matrix Spike	T	Solid	7471A	580-91239
580-27549-5MSD	Matrix Spike Duplicate	T	Solid	7471A	580-91239
Analysis Batch:580-91328					
LCS 580-91183/14-A	Lab Control Sample	T	Solid	6010B	580-91183
LCSD 580-91183/15-A	Lab Control Sample Duplicate	T	Solid	6010B	580-91183
LCSSRM 580-91183/16-A	LCS-Certified Reference Material	T	Solid	6010B	580-91183
MB 580-91183/13-A	Method Blank	T	Solid	6010B	580-91183
580-27549-1	Weden 1 S1 (0-6)	T	Solid	6010B	580-91183
580-27549-2	Weden 1 S1 (6-12)	T	Solid	6010B	580-91183
580-27549-2DU	Duplicate	T	Solid	6010B	580-91183
580-27549-2MS	Matrix Spike	T	Solid	6010B	580-91183
580-27549-2MSD	Matrix Spike Duplicate	T	Solid	6010B	580-91183
580-27549-3	Weden 1 S2 (0-6)	T	Solid	6010B	580-91183
580-27549-4	Weden 1 S2 (6-12)	T	Solid	6010B	580-91183
580-27549-5	Weden 2 S1 (0-6)	T	Solid	6010B	580-91183
Analysis Batch:580-91396					
LCS 580-91183/14-A	Lab Control Sample	T	Solid	6010B	580-91183
LCSD 580-91183/15-A	Lab Control Sample Duplicate	T	Solid	6010B	580-91183
LCSSRM 580-91183/16-A	LCS-Certified Reference Material	T	Solid	6010B	580-91183
MB 580-91183/13-A	Method Blank	T	Solid	6010B	580-91183
580-27549-1	Weden 1 S1 (0-6)	T	Solid	6010B	580-91183
580-27549-2	Weden 1 S1 (6-12)	T	Solid	6010B	580-91183
580-27549-2DU	Duplicate	T	Solid	6010B	580-91183
580-27549-2MS	Matrix Spike	T	Solid	6010B	580-91183
580-27549-2MSD	Matrix Spike Duplicate	T	Solid	6010B	580-91183
580-27549-3	Weden 1 S2 (0-6)	T	Solid	6010B	580-91183
580-27549-4	Weden 1 S2 (6-12)	T	Solid	6010B	580-91183
580-27549-5	Weden 2 S1 (0-6)	T	Solid	6010B	580-91183

Report Basis

T = Total

Client: Hart Crowser, Inc. Job Number: 580-27549-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:580-91154					
580-27549-1	Weden 1 S1 (0-6)	T	Solid	9045C	
580-27549-2	Weden 1 S1 (6-12)	T	Solid	9045C	
580-27549-3	Weden 1 S2 (0-6)	T	Solid	9045C	
580-27549-4	Weden 1 S2 (6-12)	T	Solid	9045C	
580-27549-5	Weden 2 S1 (0-6)	T	Solid	9045C	
Analysis Batch:580-91191					
580-27549-1	Weden 1 S1 (0-6)	T	Solid	Moisture	
580-27549-2	Weden 1 S1 (6-12)	T	Solid	Moisture	
580-27549-2DU	Duplicate	T	Solid	Moisture	
580-27549-3	Weden 1 S2 (0-6)	T	Solid	Moisture	
580-27549-4	Weden 1 S2 (6-12)	T	Solid	Moisture	
580-27549-5	Weden 2 S1 (0-6)	T	Solid	Moisture	

Report Basis
T = Total

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Hg_CAL_WORK_00008	10/12/11	07/12/11	H2O, Lot standard	1000 mg/L	Hg_CAL_STOCK_00001	1 mL	Mercury	0.1 mg/L
.Hg_CAL_STOCK_00001	06/30/14	AccuStandard, Lot B7045094-1A			(Purchased Reagent)		Mercury	100 mg/L
Hg_ICV_WORK_00009	10/12/11	07/12/11	H2O, Lot standard	1000 mg/L	Hg_ICV_STOCK_00002	1 mL	Mercury	0.1 mg/L
.Hg_ICV_STOCK_00002	01/29/12	CPI, Lot 10D252			(Purchased Reagent)		Mercury	100 mg/L
ICP CCV_00032	07/28/12	06/20/11	DI, Lot NA	1000 mL	ICP Std SolnA_00001	2 mL	Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	20 mg/L
.ICP Std SolnA_00001	07/28/12	CPI, Lot 11A193			(Purchased Reagent)		Calcium	10000 ug/mL
							Iron	5000 ug/mL
							Magnesium	10000 ug/mL
							Potassium	10000 ug/mL
ICP ICSA_00035	09/05/11	06/20/11	DI, Lot NA	500 mL	ICP ICSA_00021	50 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
.ICP ICSA_00021	09/23/11	CPI, Lot 10C156			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
ICP ICSAB_00027	09/05/11	06/20/11	H2O, Lot NA	500 mL	ICP ICSA_00021	50 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
					ICPICSB B_00002	5 mL	Silver	3 mg/L
					ICPICSB-A_00002	5 mL	Arsenic	10 mg/L
							Barium	3 mg/L
							Beryllium	1 mg/L
							Cadmium	3 mg/L
							Chromium	3 mg/L
							Cobalt	3 mg/L
							Copper	3 mg/L
							Lead	10 mg/L
							Manganese	2 mg/L
							Nickel	3 mg/L
							Potassium	200 mg/L
							Selenium	5 mg/L
							Thallium	10 mg/L
							Vanadium	3 mg/L
							Zinc	3 mg/L
					ICPICSB-C_00002	5 mL	Antimony	10 mg/L
					ICPICSB-D_00002	5 mL	B	5 mg/L
							Mo	3 mg/L
							Si	2.3 mg/L
							Ti	10 mg/L
.ICP ICSA_00021	09/23/11	CPI, Lot 10C156			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
.ICPICSB B_00002	09/05/11		CPI, Lot 10A113		(Purchased Reagent)		Silver	300 ug/mL
.ICPICSB-A_00002	09/05/11		CPI, Lot 10A113		(Purchased Reagent)		Arsenic	1000 ug/mL
							Barium	300 ug/mL
							Beryllium	100 ug/mL
							Cadmium	300 ug/mL
							Chromium	300 ug/mL
							Cobalt	300 ug/mL
							Copper	300 ug/mL
							Lead	1000 ug/mL
							Manganese	200 ug/mL
							Nickel	300 ug/mL
							Potassium	20000 ug/mL
							Selenium	500 ug/mL
							Thallium	1000 ug/mL
							Vanadium	300 ug/mL
							Zinc	300 ug/mL
.ICPICSB-C_00002	09/05/11		CPI, Lot 09F281		(Purchased Reagent)		Antimony	1000 ug/mL
.ICPICSB-D_00002	09/05/11		CPI, Lot 10A288		(Purchased Reagent)		B	500 ug/mL
							Mo	300 ug/mL
							Si	230 ug/mL
							Ti	1000 ug/mL
ICP ICV-2_00014	02/10/12	06/20/11	blk, Lot NA	500 mL	ICP ICV B_00002	2.5 mL	Calcium	5 mg/L
							Iron	5 mg/L
							Magnesium	5 mg/L
					ICP ICV C_00002	2.5 mL	Potassium	15 mg/L
.ICP ICV B_00002	02/29/12		Elements, Lot CS7012110		(Purchased Reagent)		Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
.ICP ICV C_00002	02/29/12		Elements, Lot CS7012111		(Purchased Reagent)		Potassium	3000 mg/L
ICP RL_00019	02/10/12	06/20/11	DI, Lot NA	500 mL	ICP ICV B_00002	0.05 mL	Calcium	1.1 mg/L
							Iron	0.2 mg/L
							Magnesium	1.1 mg/L
					ICP ICV C_00002	0.05 mL	Potassium	3.3 mg/L
					ICP RL 02A_00002	0.5 mL	Iron	0.2 mg/L
					ICP RL 02B_00002	0.5 mL	Calcium	1.1 mg/L
							Magnesium	1.1 mg/L
							Potassium	3.3 mg/L
.ICP ICV B_00002	02/29/12		Elements, Lot CS7012110		(Purchased Reagent)		Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
.ICP ICV C_00002	02/29/12		Elements, Lot CS7012111		(Purchased Reagent)		Potassium	3000 mg/L
.ICP RL 02A_00002	02/29/12		Elements, Lot cs7012137		(Purchased Reagent)		Iron	100 mg/L
.ICP RL 02B_00002	02/29/12		Elements, Lot CS7012138		(Purchased Reagent)		Calcium	1000 mg/L
							Magnesium	1000 mg/L
							Potassium	3000 mg/L
ICPMS- ICSA_00002	12/01/11		Inorganic Ventures, Lot d2-meb329124		(Purchased Reagent)		Aluminum	1000 ug/mL
							Calcium	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	2500 ug/mL
							Magnesium	1000 ug/mL
							Mo	20 ug/mL
							P	1000 ug/mL
							Potassium	1000 ug/mL
							Sodium	2500 ug/mL
							Ti	20 ug/mL
ICPMS-ICSB_00002	12/01/11	Inorganic Ventures, Lot d2-meb324099			(Purchased Reagent)		Arsenic	10 ug/mL
							Cadmium	10 ug/mL
							Chromium	20 ug/mL
							Cobalt	20 ug/mL
							Copper	20 ug/mL
							Manganese	20 ug/mL
							Nickel	20 ug/mL
							Selenium	10 ug/mL
							Silver	5 ug/mL
							Vanadium	20 ug/mL
							Zinc	10 ug/mL
ICPMS_CAL_WOR_00007	09/22/11	06/30/11	H2O, Lot 123010	1000 mL	ICPMS_CAL_00001	10 mL	Aluminum	1000 ug/L
							Antimony	100 ug/L
							Arsenic	100 ug/L
							Barium	100 ug/L
							Beryllium	100 ug/L
							Cadmium	100 ug/L
							Chromium	100 ug/L
							Cobalt	100 ug/L
							Copper	100 ug/L
							Iron	10000 ug/L
							Lead	100 ug/L
							Manganese	100 ug/L
							Nickel	100 ug/L
							Selenium	100 ug/L
							Silver	100 ug/L
							Sodium	10000 ug/L
							Thallium	100 ug/L
							Vanadium	100 ug/L
							Zinc	100 ug/L
.ICPMS_CAL_00001	09/22/11	CPI, Lot 10C166			(Purchased Reagent)		Aluminum	100 mg/L
							Antimony	10 mg/L
							Arsenic	10 mg/L
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Iron	1000 mg/L
							Lead	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Selenium	10 mg/L
							Silver	10 mg/L
							Sodium	1000 mg/L
							Thallium	10 mg/L
							Vanadium	10 mg/L
							Zinc	10 mg/L
ICPMS_ICV_WOR_00009	08/15/11	05/16/11	H2O, Lot 021511	1000 mL	ICPMS_ICV_00003	4 mL	Aluminum	400 ug/L
							Antimony	40 ug/L
							Arsenic	40 ug/L
							Barium	40 ug/L
							Beryllium	40 ug/L
							Cadmium	40 ug/L
							Chromium	40 ug/L
							Cobalt	40 ug/L
							Copper	40 ug/L
							Iron	4000 ug/L
							Lead	40 ug/L
							Manganese	40 ug/L
							Nickel	40 ug/L
							Selenium	40 ug/L
							Silver	40 ug/L
							Sodium	4000 ug/L
							Thallium	40 ug/L
							Vanadium	40 ug/L
							Zinc	40 ug/L
.ICPMS_ICV_00003	01/30/12		SPEX, Lot 5-236cr		(Purchased Reagent)		Aluminum	100 mg/L
							Antimony	10 mg/L
							Arsenic	10 mg/L
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Iron	1000 mg/L
							Lead	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L
							Selenium	10 mg/L
							Silver	10 mg/L
							Sodium	1000 mg/L
							Thallium	10 mg/L
							Vanadium	10 mg/L
							Zinc	10 mg/L
m-GPS-1_00021	12/29/12		CPI, Lot 11F316		(Purchased Reagent)		Aluminum	200 ppm
							Arsenic	200 ppm
							Barium	200 ppm
							Beryllium	5 ppm
							Cadmium	5 ppm
							Chromium	20 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Cobalt	50 ppm
							Copper	25 ppm
							Lead	50 ppm
							Manganese	50 ppm
							Nickel	50 ppm
							Selenium	200 ppm
							Thallium	200 ppm
							Vanadium	50 ppm
							Zinc	50 ppm
m-GPS-2_00018	12/29/12		CPI, Lot 11F317		(Purchased Reagent)		Antimony	100 ppm
							Silver	25 ppm
m-GPS-3_00018	12/29/12		CPI, Lot 11F319		(Purchased Reagent)		Calcium	1000 ppm
							Iron	1000 ppm
							Magnesium	1000 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
pH 7 ICV_00002	03/31/12		RICCA, Lot 1003521		(Purchased Reagent)		pH	7 %
SRMsolid_00006	01/31/14		ERA, Lot D069-540		(Purchased Reagent)		Aluminum	9780 mg/Kg
							Antimony	121 mg/Kg
							Arsenic	109 mg/Kg
							Barium	325 mg/Kg
							Beryllium	92.1 mg/Kg
							Cadmium	110 mg/Kg
							Calcium	6700 mg/Kg
							Chromium	93.4 mg/Kg
							Cobalt	133 mg/Kg
							Copper	84.7 mg/Kg
							Iron	13100 mg/Kg
							Lead	152 mg/Kg
							Magnesium	2980 mg/Kg
							Manganese	443 mg/Kg
							Mercury	16.3 mg/Kg
							Nickel	109 mg/Kg
							Potassium	2770 mg/Kg
							Selenium	207 mg/Kg
							Silver	51.9 mg/Kg
							Sodium	724 mg/Kg
							Thallium	171 mg/Kg
							Vanadium	110 mg/Kg
							Zinc	299 mg/Kg

Certification Summary

Client: Hart Crowser, Inc. TestAmerica Job ID: 580-27549-1
Project/Site: Monte Cristo WA. (17800-06)

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG No.:

Project: Monte Cristo WA. (17800-06)

Client Sample ID	Lab Sample ID
Weden 1 S1 (0-6)	580-27549-1
Weden 1 S1 (6-12)	580-27549-2
Weden 1 S2 (0-6)	580-27549-3
Weden 1 S2 (6-12)	580-27549-4
Weden 2 S1 (0-6)	580-27549-5

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Weden 1 S1 (0-6) Lab Sample ID: 580-27549-1

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG ID.:

Matrix: Solid Date Sampled: 07/09/2011 16:00

Reporting Basis: DRY Date Received: 07/21/2011 10:30

% Solids: 97.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	38000	1000	62	mg/Kg			100	6010B
7440-09-7	Potassium	740	170	16	mg/Kg		B	1	6010B
7440-70-2	Calcium	2400	56	3.2	mg/Kg		B	1	6010B
7439-95-4	Magnesium	16000	56	3.3	mg/Kg			1	6010B
7440-38-2	Arsenic	8.8	0.51	0.18	mg/Kg			10	6020
7429-90-5	Aluminum	22000	31	3.1	mg/Kg			10	6020
7440-36-0	Antimony	0.54	0.20	0.043	mg/Kg			10	6020
7440-41-7	Beryllium	0.38	0.20	0.023	mg/Kg			10	6020
7440-43-9	Cadmium	0.26	0.20	0.0082	mg/Kg			10	6020
7440-47-3	Chromium	80	0.20	0.074	mg/Kg			10	6020
7440-50-8	Copper	65	0.20	0.10	mg/Kg			10	6020
7439-92-1	Lead	12	0.20	0.011	mg/Kg			10	6020
7439-96-5	Manganese	1300	0.51	0.11	mg/Kg			10	6020
7440-02-0	Nickel	130	0.20	0.073	mg/Kg			10	6020
7782-49-2	Selenium	0.71	0.72	0.21	mg/Kg	J		10	6020
7440-22-4	Silver	0.087	0.20	0.0072	mg/Kg	J		10	6020
7440-28-0	Thallium	0.14	0.51	0.13	mg/Kg	J		10	6020
7440-66-6	Zinc	65	0.72	0.33	mg/Kg			10	6020
7440-39-3	Barium	62	0.20	0.023	mg/Kg			10	6020
7440-23-5	Sodium	88	100	40	mg/Kg	J		10	6020
7440-62-2	Vanadium	69	0.72	0.48	mg/Kg			10	6020
7440-48-4	Cobalt	21	0.20	0.019	mg/Kg			10	6020
7439-97-6	Mercury	0.14	0.017	0.0055	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Weden 1 S1 (6-12) Lab Sample ID: 580-27549-2

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG ID.:

Matrix: Solid Date Sampled: 07/09/2011 16:10

Reporting Basis: DRY Date Received: 07/21/2011 10:30

% Solids: 69.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	43000	1400	87	mg/Kg			100	6010B
7440-09-7	Potassium	680	240	23	mg/Kg		B	1	6010B
7440-70-2	Calcium	1900	79	4.4	mg/Kg		B	1	6010B
7439-95-4	Magnesium	13000	79	4.6	mg/Kg			1	6010B
7440-38-2	Arsenic	12	0.72	0.26	mg/Kg			10	6020
7429-90-5	Aluminum	28000	43	4.3	mg/Kg			10	6020
7440-36-0	Antimony	0.33	0.29	0.060	mg/Kg			10	6020
7440-41-7	Beryllium	0.44	0.29	0.032	mg/Kg			10	6020
7440-43-9	Cadmium	0.36	0.29	0.011	mg/Kg			10	6020
7440-47-3	Chromium	77	0.29	0.10	mg/Kg			10	6020
7440-50-8	Copper	71	0.29	0.14	mg/Kg			10	6020
7439-92-1	Lead	11	0.29	0.016	mg/Kg			10	6020
7439-96-5	Manganese	1100	0.72	0.15	mg/Kg			10	6020
7440-02-0	Nickel	110	0.29	0.10	mg/Kg			10	6020
7782-49-2	Selenium	0.84	1.0	0.29	mg/Kg	J		10	6020
7440-22-4	Silver	0.14	0.29	0.010	mg/Kg	J		10	6020
7440-28-0	Thallium	0.21	0.72	0.19	mg/Kg	J		10	6020
7440-66-6	Zinc	73	1.0	0.46	mg/Kg			10	6020
7440-39-3	Barium	65	0.29	0.032	mg/Kg			10	6020
7440-23-5	Sodium	90	140	56	mg/Kg	J		10	6020
7440-62-2	Vanadium	81	1.0	0.68	mg/Kg			10	6020
7440-48-4	Cobalt	21	0.29	0.027	mg/Kg			10	6020
7439-97-6	Mercury	0.14	0.021	0.0065	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Weden 1 S2 (0-6) Lab Sample ID: 580-27549-3

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG ID.:

Matrix: Solid Date Sampled: 07/12/2011 13:04

Reporting Basis: DRY Date Received: 07/21/2011 10:30

% Solids: 96.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	53000	920	56	mg/Kg			100	6010B
7440-09-7	Potassium	750	150	15	mg/Kg		B	1	6010B
7440-70-2	Calcium	2500	50	2.8	mg/Kg		B	1	6010B
7439-95-4	Magnesium	25000	50	2.9	mg/Kg			1	6010B
7440-38-2	Arsenic	13	0.46	0.17	mg/Kg			10	6020
7429-90-5	Aluminum	32000	28	2.8	mg/Kg			10	6020
7440-36-0	Antimony	0.30	0.18	0.039	mg/Kg			10	6020
7440-41-7	Beryllium	0.54	0.18	0.020	mg/Kg			10	6020
7440-43-9	Cadmium	0.22	0.18	0.0073	mg/Kg			10	6020
7440-47-3	Chromium	140	0.18	0.066	mg/Kg			10	6020
7440-50-8	Copper	86	0.18	0.090	mg/Kg			10	6020
7439-92-1	Lead	9.8	0.18	0.010	mg/Kg			10	6020
7439-96-5	Manganese	970	0.46	0.096	mg/Kg			10	6020
7440-02-0	Nickel	260	0.18	0.065	mg/Kg			10	6020
7782-49-2	Selenium	0.99	0.64	0.19	mg/Kg			10	6020
7440-22-4	Silver	0.084	0.18	0.0064	mg/Kg	J		10	6020
7440-28-0	Thallium	0.13	0.46	0.12	mg/Kg	J		10	6020
7440-66-6	Zinc	84	0.64	0.29	mg/Kg			10	6020
7440-39-3	Barium	81	0.18	0.020	mg/Kg			10	6020
7440-23-5	Sodium	91	92	36	mg/Kg	J		10	6020
7440-62-2	Vanadium	97	0.64	0.43	mg/Kg			10	6020
7440-48-4	Cobalt	33	0.18	0.017	mg/Kg			10	6020
7439-97-6	Mercury	0.090	0.016	0.0050	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Weden 1 S2 (6-12) Lab Sample ID: 580-27549-4

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG ID.:

Matrix: Solid Date Sampled: 07/12/2011 13:10

Reporting Basis: DRY Date Received: 07/21/2011 10:30

% Solids: 97.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	51000	880	53	mg/Kg			100	6010B
7440-09-7	Potassium	840	140	14	mg/Kg		B	1	6010B
7440-70-2	Calcium	2900	48	2.7	mg/Kg		B	1	6010B
7439-95-4	Magnesium	23000	48	2.8	mg/Kg			1	6010B
7440-38-2	Arsenic	15	0.44	0.16	mg/Kg			10	6020
7429-90-5	Aluminum	32000	26	2.6	mg/Kg			10	6020
7440-36-0	Antimony	0.36	0.18	0.037	mg/Kg			10	6020
7440-41-7	Beryllium	0.58	0.18	0.019	mg/Kg			10	6020
7440-43-9	Cadmium	0.25	0.18	0.0070	mg/Kg			10	6020
7440-47-3	Chromium	130	0.18	0.063	mg/Kg			10	6020
7440-50-8	Copper	88	0.18	0.086	mg/Kg			10	6020
7439-92-1	Lead	11	0.18	0.0096	mg/Kg			10	6020
7439-96-5	Manganese	970	0.44	0.092	mg/Kg			10	6020
7440-02-0	Nickel	250	0.18	0.062	mg/Kg			10	6020
7782-49-2	Selenium	1.1	0.61	0.18	mg/Kg			10	6020
7440-22-4	Silver	0.10	0.18	0.0061	mg/Kg	J		10	6020
7440-28-0	Thallium	0.13	0.44	0.11	mg/Kg	J		10	6020
7440-66-6	Zinc	81	0.61	0.28	mg/Kg			10	6020
7440-39-3	Barium	110	0.18	0.019	mg/Kg			10	6020
7440-23-5	Sodium	120	88	34	mg/Kg			10	6020
7440-62-2	Vanadium	96	0.61	0.41	mg/Kg			10	6020
7440-48-4	Cobalt	31	0.18	0.017	mg/Kg			10	6020
7439-97-6	Mercury	0.11	0.017	0.0053	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Weden 2 S1 (0-6) Lab Sample ID: 580-27549-5

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG ID.:

Matrix: Solid Date Sampled: 07/12/2011 15:30

Reporting Basis: DRY Date Received: 07/21/2011 10:30

% Solids: 94.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	16000	950	58	mg/Kg			100	6010B
7440-09-7	Potassium	2000	160	15	mg/Kg		B	1	6010B
7440-70-2	Calcium	2300	52	2.9	mg/Kg		B	1	6010B
7439-95-4	Magnesium	9600	52	3.0	mg/Kg			1	6010B
7440-38-2	Arsenic	33	0.47	0.17	mg/Kg			10	6020
7429-90-5	Aluminum	13000	28	2.8	mg/Kg			10	6020
7440-36-0	Antimony	0.35	0.19	0.040	mg/Kg			10	6020
7440-41-7	Beryllium	0.93	0.19	0.021	mg/Kg			10	6020
7440-43-9	Cadmium	0.21	0.19	0.0076	mg/Kg			10	6020
7440-47-3	Chromium	75	0.19	0.068	mg/Kg			10	6020
7440-50-8	Copper	74	0.19	0.093	mg/Kg			10	6020
7439-92-1	Lead	14	0.19	0.010	mg/Kg			10	6020
7439-96-5	Manganese	240	0.47	0.099	mg/Kg			10	6020
7440-02-0	Nickel	110	0.19	0.067	mg/Kg			10	6020
7782-49-2	Selenium	0.81	0.66	0.19	mg/Kg			10	6020
7440-22-4	Silver	0.080	0.19	0.0066	mg/Kg	J		10	6020
7440-28-0	Thallium	0.23	0.47	0.12	mg/Kg	J		10	6020
7440-66-6	Zinc	31	0.66	0.30	mg/Kg			10	6020
7440-39-3	Barium	120	0.19	0.021	mg/Kg			10	6020
7440-23-5	Sodium	94	95	37	mg/Kg	J		10	6020
7440-62-2	Vanadium	14	0.66	0.45	mg/Kg			10	6020
7440-48-4	Cobalt	18	0.19	0.018	mg/Kg			10	6020
7439-97-6	Mercury	0.064	0.015	0.0048	mg/Kg			1	7471A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICV Source: ICP ICV-2_00014 Concentration Units: mg/L

CCV Source: ICP CCV_00032

Analyte	ICV 580-91396/6 07/27/2011 09:13				CCV 580-91396/23 07/27/2011 10:54				CCV 580-91396/34 07/27/2011 11:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	5.42		5.00	108	10.3		10.0	103	10.3		10.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICV Source: ICP ICV-2_00014 Concentration Units: mg/L

CCV Source: ICP CCV_00032

Analyte	CCV 580-91396/43 07/27/2011 12:50											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Iron	10.3		10.0	103								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICV Source: ICP ICV-2_00014 Concentration Units: mg/L

CCV Source: ICP CCV_00032

Analyte	ICV 580-91328/6 07/26/2011 14:48				CCV 580-91328/11 07/26/2011 17:11				CCV 580-91328/23 07/26/2011 18:31			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5.13		5.00	103	20.0		20.0	100	20.0		20.0	100
Magnesium	5.14		5.00	103	20.0		20.0	100	19.9		20.0	99
Potassium	15.3		15.0	102	19.9		20.0	100	19.4		20.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICV Source: ICP ICV-2_00014 Concentration Units: mg/L

CCV Source: ICP CCV_00032

Analyte	CCV 580-91328/29 07/26/2011 19:15											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	19.9		20.0	100								
Magnesium	20.1		20.0	100								
Potassium	19.5		20.0	97								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00009 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00007

Analyte	ICV 580-91299/7 07/26/2011 08:38				CCV 580-91299/28 07/26/2011 12:30				CCV 580-91299/34 07/26/2011 12:59			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.409		0.400	102	0.505		0.500	101	0.496		0.500	99
Antimony	0.0399		0.0400	100	0.0505		0.0500	101	0.0500		0.0500	100
Arsenic	0.0413		0.0400	103	0.0494		0.0500	99	0.0491		0.0500	98
Barium	0.0407		0.0400	102	0.0504		0.0500	101	0.0505		0.0500	101
Beryllium	0.0405		0.0400	101	0.0490		0.0500	98	0.0483		0.0500	97
Cadmium	0.0408		0.0400	102	0.0497		0.0500	99	0.0494		0.0500	99
Chromium	0.0404		0.0400	101	0.0480		0.0500	96	0.0480		0.0500	96
Cobalt	0.0409		0.0400	102	0.0478		0.0500	96	0.0477		0.0500	95
Copper	0.0416		0.0400	104	0.0484		0.0500	97	0.0477		0.0500	95
Lead	0.0410		0.0400	103	0.0489		0.0500	98	0.0493		0.0500	99
Manganese	0.0411		0.0400	103	0.0499		0.0500	100	0.0495		0.0500	99
Nickel	0.0415		0.0400	104	0.0477		0.0500	95	0.0479		0.0500	96
Selenium	0.0405		0.0400	101	0.0509		0.0500	102	0.0509		0.0500	102
Silver	0.0411		0.0400	103	0.0495		0.0500	99	0.0493		0.0500	99
Sodium	ND		4.00	102	ND		5.00	97	ND		5.00	96
Thallium	0.0415		0.0400	104	0.0471		0.0500	94	0.0479		0.0500	96
Vanadium	0.0406		0.0400	102	0.0488		0.0500	98	0.0485		0.0500	97
Zinc	0.0408		0.0400	102	0.0484		0.0500	97	0.0485		0.0500	97
Iron	4.06		4.00	101	4.84		5.00	97	4.83		5.00	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00009 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00007

Analyte	CCV 580-91299/42 07/26/2011 13:29				CCV 580-91299/48 07/26/2011 14:26				CCV 580-91299/57 07/26/2011 15:00			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.505		0.500	101	0.504		0.500	101	0.503		0.500	101
Antimony	0.0503		0.0500	101	0.0505		0.0500	101	0.0498		0.0500	100
Arsenic	0.0492		0.0500	98	0.0487		0.0500	97	0.0487		0.0500	97
Barium	0.0513		0.0500	103	0.0508		0.0500	102	0.0504		0.0500	101
Beryllium	0.0484		0.0500	97	0.0469		0.0500	94	0.0465		0.0500	93
Cadmium	0.0495		0.0500	99	0.0496		0.0500	99	0.0491		0.0500	98
Chromium	0.0480		0.0500	96	0.0478		0.0500	96	0.0476		0.0500	95
Cobalt	0.0480		0.0500	96	0.0475		0.0500	95	0.0474		0.0500	95
Copper	0.0482		0.0500	96	0.0472		0.0500	94	0.0474		0.0500	95
Lead	0.0491		0.0500	98	0.0491		0.0500	98	0.0486		0.0500	97
Manganese	0.0506		0.0500	101	0.0501		0.0500	100	0.0500		0.0500	100
Nickel	0.0486		0.0500	97	0.0478		0.0500	96	0.0477		0.0500	95
Selenium	0.0510		0.0500	102	0.0505		0.0500	101	0.0509		0.0500	102
Silver	0.0495		0.0500	99	0.0487		0.0500	97	0.0484		0.0500	97
Sodium	ND		5.00	98	ND		5.00	94	ND		5.00	94
Thallium	0.0472		0.0500	94	0.0468		0.0500	94	0.0460		0.0500	92
Vanadium	0.0490		0.0500	98	0.0487		0.0500	97	0.0487		0.0500	97
Zinc	0.0486		0.0500	97	0.0474		0.0500	95	0.0471		0.0500	94
Iron	4.91		5.00	98	4.85		5.00	97	4.85		5.00	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	ICV 580-91309/7 07/26/2011 13:05				CCV 580-91309/9 07/26/2011 13:10				CCV 580-91309/21 07/26/2011 13:31			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00409		0.00400	102	0.00523		0.00500	105	0.00499		0.00500	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	CCV 580-91309/33 07/26/2011 13:52											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00494		0.00500	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Method: 6010B Instrument ID: SEA027

Lab Sample ID: CRI 580-91396/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00019

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Iron	0.200	0.218		109	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Method: 6010B Instrument ID: TAC047

Lab Sample ID: CRI 580-91328/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00019

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Potassium	3.30	2.95	J	89	50-150
Calcium	1.10	0.995	J	90	50-150
Magnesium	1.10	1.07	J	97	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Method: 6020 Instrument ID: SEA044

Lab Sample ID: CRI 580-91299/9 Concentration Units: mg/L

CRQL Check Standard Source: ICPMS_CAL_WOR_00007

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Arsenic	0.00200	0.00209		105	50-150
Aluminum	0.0200	ND		105	50-150
Antimony	0.00200	0.00194		97	50-150
Beryllium	0.00200	0.00186		93	50-150
Cadmium	0.00200	0.00199		99	50-150
Chromium	0.00200	0.00209		105	50-150
Copper	0.00200	0.00219		109	50-150
Lead	0.00200	0.00207		103	50-150
Manganese	0.00200	0.00204		102	50-150
Nickel	0.00200	0.00216	J	108	50-150
Selenium	0.00200	0.00214		107	50-150
Silver	0.00200	0.00210		105	50-150
Thallium	0.00200	0.00213		106	50-150
Zinc	0.00200	0.00210		105	50-150
Barium	0.00200	0.00202		101	50-150
Sodium	0.200	ND		102	50-150
Vanadium	0.00200	0.00209		105	50-150
Cobalt	0.00200	0.00211		105	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-91396/7 07/27/2011 09:18		CCB 580-91396/24 07/27/2011 11:00		CCB 580-91396/35 07/27/2011 12:04		CCB 580-91396/44 07/27/2011 12:56	
		Found	C	Found	C	Found	C	Found	C
Iron	0.20	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-91328/7 07/26/2011 14:57		CCB 580-91328/12 07/26/2011 17:18		CCB 580-91328/24 07/26/2011 18:39		CCB 580-91328/30 07/26/2011 19:23	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	ND		0.282	J	ND		ND	
Magnesium	1.1	ND		ND		0.250	J	0.391	J
Potassium	3.3	ND		0.417	J	ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-91299/8 07/26/2011 08:44		CCB 580-91299/29 07/26/2011 12:34		CCB 580-91299/35 07/26/2011 13:03		CCB 580-91299/43 07/26/2011 13:33	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND		ND		ND	
Antimony	0.00040	ND		0.000105	J	0.0000825	J	ND	
Arsenic	0.0010	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Manganese	0.0010	ND		ND		ND		ND	
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		ND		0.000486	J	0.000406	J
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	
Iron	0.040	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-91299/49 07/26/2011 14:30		CCB 580-91299/58 07/26/2011 15:04					
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND					
Antimony	0.00040	0.000285	J	0.0000985	J				
Arsenic	0.0010	ND		ND					
Barium	0.0012	ND		ND					
Beryllium	0.00040	ND		ND					
Cadmium	0.00040	ND		ND					
Chromium	0.00040	ND		ND					
Cobalt	0.00040	ND		ND					
Copper	0.0010	ND		ND					
Lead	0.00040	ND		ND					
Manganese	0.0010	ND		ND					
Nickel	0.0030	ND		ND					
Selenium	0.0014	ND		ND					
Silver	0.00040	ND		ND					
Sodium	10	ND		ND					
Thallium	0.0010	ND		ND					
Vanadium	0.0020	ND		ND					
Zinc	0.0014	ND		ND					
Iron	0.040	ND		ND					

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-91309/8 07/26/2011 13:07		CCB 580-91309/10 07/26/2011 13:12		CCB 580-91309/22 07/26/2011 13:33		CCB 580-91309/34 07/26/2011 13:53	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-91183/13-A

Instrument Code: TAC047 Batch No.: 91328

CAS No.	Analyte	Concentration	C	Q	Method
7440-09-7	Potassium	16.6	J		6010B
7440-70-2	Calcium	3.85	J		6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-91183/13-A

Instrument Code: SEA027 Batch No.: 91396

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-91183/13-A

Instrument Code: SEA044 Batch No.: 91299

CAS No.	Analyte	Concentration	C	Q	Method
7440-38-2	Arsenic	ND			6020
7429-90-5	Aluminum	ND			6020
7440-36-0	Antimony	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7439-96-5	Manganese	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-28-0	Thallium	ND			6020
7440-66-6	Zinc	ND			6020
7440-39-3	Barium	ND			6020
7440-23-5	Sodium	ND			6020
7440-62-2	Vanadium	ND			6020
7440-48-4	Cobalt	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-91239/23-A

Instrument Code: TAC103 Batch No.: 91309

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Lab Sample ID: ICSA 580-91396/9 Instrument ID: SEA027

Lab File ID: 580-91183-91205Fe.prn ICS Source: ICP ICSA_00035

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Found Percent Recovery
Iron	**200**	**180**	**90**
Aluminum	*500*	*483*	*97*
Calcium	*500*	*445*	*89*
Hardness as calcium		*3102*	
Magnesium	*500*	*483*	*97*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Lab Sample ID: ICSAB 580-91396/10 Instrument ID: SEA027

Lab File ID: 580-91183-91205Fe.prn ICS Source: ICP ICSAB_00027

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Iron	**200**	**180**	**90**
Aluminum	*500*	*495*	*99*
Calcium	*500*	*453*	*91*
Hardness as calcium		*3155*	
Magnesium	*500*	*492*	*98*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Lab Sample ID: ICSA 580-91328/9 Instrument ID: TAC047

Lab File ID: 580-91205-91183.asc ICS Source: ICP ICSA_00035

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500**	**471**	**94**
Magnesium	**500**	**485**	**97**
Potassium		**0.349**	
Aluminum	*500*	*528*	*106*
Antimony		*0.0054*	
Arsenic		*0.0000*	
Barium		*0.0027*	
Beryllium		*0.0005*	
Boron		*0.0034*	
Cadmium		*-0.0007*	
Chromium		*0.0008*	
Cobalt		*0.0005*	
Copper		*0.0119*	
Hardness as calcium		*3170*	
Lead		*0.0023*	
Manganese		*0.0128*	
Molybdenum		*-0.0007*	
Nickel		*0.0035*	
Phosphorus		*0.0391*	
Selenium		*0.0147*	
Silicon		*-0.124*	
Silver		*0.0004*	
SiO2, Silica		*-0.265*	
Sodium		*-0.386*	
Strontium		*0.0530*	
Thallium		*0.0017*	
Tin		*0.0016*	
Titanium		*0.0015*	
Vanadium		*0.0034*	
Zinc		*0.0135*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Lab Sample ID: ICSAB 580-91328/10 Instrument ID: TAC047

Lab File ID: 580-91205-91183.asc ICS Source: ICP ICSAB_00027

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500**	**473**	**95**
Magnesium	**500**	**474**	**95**
Potassium	**200**	**209**	**104**
Aluminum	*500*	*521*	*104*
Antimony	*10.0*	*10.1*	*101*
Arsenic	*10.0*	*10.2*	*102*
Barium	*3.00*	*2.87*	*96*
Beryllium	*1.00*	*1.02*	*102*
Boron	*5.00*	*4.74*	*95*
Cadmium	*3.00*	*2.76*	*92*
Chromium	*3.00*	*2.93*	*98*
Cobalt	*3.00*	*3.06*	*102*
Copper	*3.00*	*3.15*	*105*
Hardness as calcium		*3131*	
Lead	*10.0*	*10.1*	*101*
Manganese	*2.00*	*1.93*	*96*
Molybdenum	*3.00*	*2.75*	*92*
Nickel	*3.00*	*3.04*	*101*
Phosphorus		*0.0308*	
Selenium	*5.00*	*5.00*	*100*
Silicon	*2.30*	*2.18*	*95*
Silver	*3.00*	*3.10*	*103*
SiO2, Silica		*4.67*	
Sodium		*-0.370*	
Strontium		*0.0487*	
Thallium	*10.0*	*9.76*	*98*
Tin		*0.0082*	
Titanium	*10.0*	*9.31*	*93*
Vanadium	*3.00*	*2.91*	*97*
Zinc	*3.00*	*2.99*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Lab Sample ID: ICSA 580-91299/10 Instrument ID: SEA044

Lab File ID: 013SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**20.0**	**19.2**	**96**
Antimony		**0.0001**	
Arsenic		**0.0000**	
Barium		**0.0002**	
Beryllium		**0.0000**	
Cadmium		**0.0000**	
Chromium		**0.0012**	
Cobalt		**0.0000**	
Copper		**0.0002**	
Lead		**0.0001**	
Manganese		**0.0008**	
Nickel		**0.0006**	
Selenium		**0.0001**	
Silver		**0.0000**	
Sodium	**50.0**	**50.9**	**102**
Thallium		**0.0000**	
Vanadium		**-0.0001**	
Zinc		**0.0014**	
Calcium	*60.0*	*55.9*	*93*
Iron	*50.0*	*50.5*	*101*
Magnesium	*20.0*	*20.1*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.440*	*110*
Phosphorus	*20.0*	*20.8*	*104*
Potassium	*20.0*	*20.1*	*100*
Strontium		*0.0030*	
Tin		*0.0002*	
Titanium	*0.400*	*0.407*	*102*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Lab Sample ID: ICSAB 580-91299/11 Instrument ID: SEA044

Lab File ID: 014SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**20.0**	**19.2**	**96**
Antimony		**0.0001**	
Arsenic	**0.0200**	**0.0210**	**105**
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0215**	**108**
Chromium	**0.0400**	**0.0411**	**103**
Cobalt	**0.0400**	**0.0404**	**101**
Copper	**0.0400**	**0.0394**	**98**
Lead		**0.0000**	
Manganese	**0.0400**	**0.0406**	**102**
Nickel	**0.0400**	**0.0406**	**102**
Selenium	**0.0200**	**0.0213**	**107**
Silver	**0.0100**	**0.0104**	**104**
Sodium	**50.0**	**51.0**	**102**
Thallium		**0.0000**	
Vanadium	**0.0400**	**0.0414**	**104**
Zinc	**0.0200**	**0.0208**	**104**
Calcium	*60.0*	*56.0*	*93*
Iron	*50.0*	*50.1*	*100*
Magnesium	*20.0*	*20.2*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.433*	*108*
Phosphorus	*20.0*	*21.0*	*105*
Potassium	*20.0*	*20.1*	*101*
Strontium		*0.0030*	
Tin		*0.0000*	
Titanium	*0.400*	*0.407*	*102*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Lab Sample ID: ICSAB 580-91299/11 Instrument ID: SEA044

Lab File ID: 014SMPL.D ICS Source: ICPMS-ICSB_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**20.0**	**19.2**	**96**
Antimony		**0.0001**	
Arsenic	**0.0200**	**0.0210**	**105**
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0215**	**108**
Chromium	**0.0400**	**0.0411**	**103**
Cobalt	**0.0400**	**0.0404**	**101**
Copper	**0.0400**	**0.0394**	**98**
Lead		**0.0000**	
Manganese	**0.0400**	**0.0406**	**102**
Nickel	**0.0400**	**0.0406**	**102**
Selenium	**0.0200**	**0.0213**	**107**
Silver	**0.0100**	**0.0104**	**104**
Sodium	**50.0**	**51.0**	**102**
Thallium		**0.0000**	
Vanadium	**0.0400**	**0.0414**	**104**
Zinc	**0.0200**	**0.0208**	**104**
Calcium	*60.0*	*56.0*	*93*
Iron	*50.0*	*50.1*	*100*
Magnesium	*20.0*	*20.2*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.433*	*108*
Phosphorus	*20.0*	*21.0*	*105*
Potassium	*20.0*	*20.1*	*101*
Strontium		*0.0030*	
Tin		*0.0000*	
Titanium	*0.400*	*0.407*	*102*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: Weden 1 S1 (6-12) MS
Lab ID: 580-27549-2 MS
Lab Name: TestAmerica Seattle
Job No.: 580-27549-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 69.2

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	42600		43000		1570	-15	80-120	4	6010B
Potassium	2110		680		1430	100	80-120		6010B
Calcium	3340		1900		1430	97	80-120		6010B
Magnesium	15000		13000		1430	152	80-120	4	6010B
Arsenic	315		12		286	106	80-120		6020
Aluminum	32200		28000		286	1370	80-120	4	6020
Antimony	110		0.33		214	51	80-120	F	6020
Beryllium	7.83		0.44		7.14	103	80-120		6020
Cadmium	8.10		0.36		7.14	108	80-120		6020
Chromium	115		77		28.6	132	80-120	F	6020
Copper	112		71		35.7	116	80-120		6020
Lead	88.1		11		71.4	108	80-120		6020
Manganese	1270		1100		71.4	265	80-120	4	6020
Nickel	206		110		71.4	128	80-120	F	6020
Selenium	314		0.84	J	286	110	80-120		6020
Silver	45.0		0.14	J	42.8	105	80-120		6020
Thallium	314		0.21	J	286	110	80-120		6020
Zinc	152		73		71.4	110	80-120		6020
Barium	387		65		286	113	80-120		6020
Sodium	1570		90	J	1430	104	80-120		6020
Vanadium	168		81		71.4	122	80-120	F	6020
Cobalt	96.3		21		71.4	105	80-120		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: Weden 2 S1 (0-6) MS
Lab ID: 580-27549-5 MS
Lab Name: TestAmerica Seattle
Job No.: 580-27549-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 94.2

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.239		0.064		0.144	122	80-120	F	7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: Weden 1 S1 (6-12) MSD Lab ID: 580-27549-2 MSD

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 69.2

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	38100		1520	-313	80-120	11	20	4	6010B
Potassium	2010		1380	96	80-120	5	20		6010B
Calcium	3150		1380	87	80-120	6	20		6010B
Magnesium	15600		1380	204	80-120	4	20	4	6010B
Arsenic	310		277	108	80-120	2	20		6020
Aluminum	33500		277	1878	80-120	4	20	4	6020
Antimony	107		208	51	80-120	3	20	F	6020
Beryllium	7.48		6.92	102	80-120	4	20		6020
Cadmium	8.12		6.92	112	80-120	0	20		6020
Chromium	118		27.7	145	80-120	2	20	F	6020
Copper	114		34.6	125	80-120	2	20	F	6020
Lead	87.8		69.2	111	80-120	0	20		6020
Manganese	1320		69.2	342	80-120	4	20	4	6020
Nickel	215		69.2	145	80-120	4	20	F	6020
Selenium	312		277	112	80-120	0	20		6020
Silver	44.8		41.5	108	80-120	1	20		6020
Thallium	314		277	113	80-120	0	20		6020
Zinc	156		69.2	120	80-120	3	20		6020
Barium	385		277	116	80-120	0	20		6020
Sodium	1620		1380	110	80-120	3	20		6020
Vanadium	171		69.2	130	80-120	2	20	F	6020
Cobalt	97.1		69.2	110	80-120	1	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: Weden 2 S1 (0-6) MSD
Lab ID: 580-27549-5 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-27549-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 94.2

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.254		0.170	112	80-120	6	20		7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: Weden 1 S1 (6-12) PDS Lab ID: 580-27549-2 PDS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	34000		43000		1580	NC	75-125		6010B
Potassium	2010		680		1430	93			6010B
Calcium	3100		1900		1430	81			6010B
Magnesium	12900		13000		1430	9	75-125	W	6010B
Arsenic	296		12		287	99	75-125		6020
Aluminum	26100		28000		287	NC	75-125		6020
Antimony	211		0.33		215	98	75-125		6020
Beryllium	7.30		0.44		7.17	96	75-125		6020
Cadmium	6.95		0.36		7.17	92	75-125		6020
Chromium	94.5		77		28.7	60	75-125	W	6020
Copper	97.7		71		35.8	75	75-125		6020
Lead	82.5		11		71.7	100	75-125		6020
Manganese	1070		1100		71.7	NC	75-125		6020
Nickel	172		110		71.7	81	75-125		6020
Selenium	294		0.84	J	287	102	75-125		6020
Silver	42.7		0.14	J	43.0	99	75-125		6020
Thallium	302		0.21	J	287	105	75-125		6020
Zinc	134		73		71.7	84	75-125		6020
Barium	345		65		287	98	75-125		6020
Sodium	1450		90	J	1430	95	75-125		6020
Vanadium	142		81		71.7	84	75-125		6020
Cobalt	87.8		21		71.7	93	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: Weden 1 S1 (6-12) DU Lab ID: 580-27549-2 DU

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

% Solids for Sample: 69.2 % Solids for Duplicate: 69.2

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Iron	1300	43000		39800		7		6010B
Potassium	210	680		729		7		6010B
Calcium	70	1900		1860		5		6010B
Magnesium	70	13000		14300		11		6010B
Arsenic	0.64	12		11.2		5		6020
Aluminum	38	28000		29000		3		6020
Antimony	0.25	0.33		0.294		11		6020
Beryllium	0.25	0.44		0.459		3		6020
Cadmium	0.25	0.36		0.300		19		6020
Chromium	0.25	77		78.4		1		6020
Copper	0.25	71		67.7		4		6020
Lead	0.25	11		10.9		0.7		6020
Manganese	0.64	1100		1120		4		6020
Nickel	0.25	110		128		11		6020
Selenium	0.89	0.84	J	0.835	J	0.9		6020
Silver	0.25	0.14	J	0.146	J	2		6020
Thallium	0.64	0.21	J	0.178	J	17		6020
Zinc	0.89	73		71.4		2		6020
Barium	0.25	65		67.9		5		6020
Sodium	130	90	J	83.5	J	8		6020
Vanadium	0.89	81		84.4		4		6020
Cobalt	0.25	21		21.2		0.07		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: Weden 2 S1 (0-6) DU Lab ID: 580-27549-5 DU

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

% Solids for Sample: 94.2 % Solids for Duplicate: 94.2

Matrix: Solid Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.016	0.064		0.0603		5		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-91183/14-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	1000	988		99	80	120		6010B
Calcium	1000	1010		101	80	120		6010B
Magnesium	1000	960		96	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-91183/15-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	984		1000	98	80-120	0	20		6010B
Calcium	981		1000	98	80-120	3	20		6010B
Magnesium	974		1000	97	80-120	1	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-91183/16-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	2770	2370		85	65.0	135.0		6010B
Calcium	6700	6980		104	75.4	124.0		6010B
Magnesium	2980	2680		90	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-91183/14-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Iron	1100	1140		104	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-91183/15-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	1150		1100	105	80-120	1	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-91183/16-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Iron	13100	11800		90	41.6	159.1		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-91183/14-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	200	197		99	80	120		6020
Aluminum	200	202		101	80	120		6020
Antimony	150	143		95	80	120		6020
Beryllium	5.00	4.82		96	80	120		6020
Cadmium	5.00	5.15		103	80	120		6020
Chromium	20.0	19.3		97	80	120		6020
Copper	25.0	24.9		100	80	120		6020
Lead	50.0	49.3		99	80	120		6020
Manganese	50.0	50.6		101	80	120		6020
Nickel	50.0	49.1		98	80	120		6020
Selenium	200	203		102	80	120		6020
Silver	30.0	29.8		99	80	120		6020
Thallium	200	181		91	80	120		6020
Zinc	50.0	49.5		99	80	120		6020
Barium	200	197		99	80	120		6020
Sodium	1000	963		96	80	120		6020
Vanadium	50.0	49.5		99	80	120		6020
Cobalt	50.0	49.1		98	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-91183/15-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Arsenic	198		200	99	80-120	0	20		6020
Aluminum	201		200	101	80-120	0	20		6020
Antimony	144		150	96	80-120	1	20		6020
Beryllium	4.91		5.00	98	80-120	2	20		6020
Cadmium	4.91		5.00	98	80-120	5	20		6020
Chromium	20.0		20.0	100	80-120	4	20		6020
Copper	25.2		25.0	101	80-120	1	20		6020
Lead	49.6		50.0	99	80-120	1	20		6020
Manganese	50.4		50.0	101	80-120	0	20		6020
Nickel	50.0		50.0	100	80-120	2	20		6020
Selenium	202		200	101	80-120	1	20		6020
Silver	29.8		30.0	99	80-120	0	20		6020
Thallium	186		200	93	80-120	3	20		6020
Zinc	54.9		50.0	110	80-120	10	20		6020
Barium	200		200	100	80-120	1	20		6020
Sodium	956		1000	96	80-120	1	20		6020
Vanadium	49.8		50.0	100	80-120	0	20		6020
Cobalt	49.1		50.0	98	80-120	0	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-91183/16-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Arsenic	109	112		103	71.1	128.9		6020
Aluminum	9780	8220		84	46.0	153.8		6020
Antimony	121	226		187	21.0	251.6		6020
Beryllium	92.1	89.5		97	75.3	124.7		6020
Cadmium	110	115		105	73.2	126.8		6020
Chromium	93.4	93.9		101	69.9	129.8		6020
Copper	84.7	72.9		86	73.2	126.8		6020
Lead	152	168		111	75.3	125.1		6020
Manganese	443	486		110	75.8	124.5		6020
Nickel	109	113		103	73.8	126.7		6020
Selenium	207	227		110	67.1	132.7		6020
Silver	51.9	52.6		101	65.6	134.4		6020
Thallium	171	176		103	68.8	131.2		6020
Zinc	299	307		103	72.2	127.8		6020
Barium	325	339		104	74.7	125.5		6020
Sodium	724	709		98	52.0	148.0		6020
Vanadium	110	115		104	64.5	135.3		6020
Cobalt	133	143		107	74.5	126.1		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-91239/24-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.173		104	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-91239/25-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.175		0.167	105	80-120	1	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-91239/26-A

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	18.2		111	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-27549-2

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-27549-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	43000		40800		4.8		6010B
Potassium	680		720	J	NC		6010B
Calcium	1900		2130		9.4		6010B
Magnesium	13000		12600		2.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-27549-2

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-27549-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Arsenic	12		11.1		NC		6020
Aluminum	28000		28600		1.2		6020
Antimony	0.33		0.426	J	NC		6020
Beryllium	0.44		0.456	J	NC		6020
Cadmium	0.36		0.301	J	NC		6020
Chromium	77		75.0		3.1		6020
Copper	71		71.4		1.1		6020
Lead	11		10.9		0.52		6020
Manganese	1100		1110		2.5		6020
Nickel	110		115		0.13		6020
Selenium	0.84	J	ND		NC		6020
Silver	0.14	J	0.140	J	NC		6020
Thallium	0.21	J	0.957	J	NC		6020
Zinc	73		70.8		3.2		6020
Barium	65		65.1		0.87		6020
Sodium	90	J	ND		NC		6020
Vanadium	81		79.2		2.7		6020
Cobalt	21		20.9		1.3		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: SEA027

Method: 6010B MDL Date: 06/06/2011 08:46

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Iron		10	0.61

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: SEA027

Method: 6010B XMDL Date: 11/02/2010 08:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Iron		0.2	0.032

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B MDL Date: 06/06/2011 08:46

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Calcium		55	3.1
Magnesium		55	3.2
Potassium		165	16

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B XMDL Date: 11/02/2010 08:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Calcium		1.1	0.028
Magnesium		1.1	0.23
Potassium		3.3	0.41

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 MDL Date: 06/10/2011 10:12

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Aluminum		30	3
Antimony		0.2	0.042
Arsenic		0.5	0.18
Barium		0.2	0.022
Beryllium		0.2	0.022
Cadmium		0.2	0.008
Chromium		0.2	0.072
Cobalt		0.2	0.019
Copper		0.2	0.098
Lead		0.2	0.011
Manganese		0.5	0.105
Nickel		0.2	0.071
Selenium		0.7	0.202
Silver		0.2	0.007
Sodium		100	39.2
Thallium		0.5	0.13
Vanadium		0.7	0.473
Zinc		0.7	0.32

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 XMDL Date: 06/24/2011 10:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Aluminum		0.08	0.06
Antimony		0.0004	0.00008
Arsenic		0.001	0.00075
Barium		0.0012	0.000054
Beryllium		0.0004	0.0001
Cadmium		0.0004	0.000028
Chromium		0.0004	0.00027
Cobalt		0.0004	0.00004
Copper		0.001	0.000196
Lead		0.0004	0.00004
Manganese		0.001	0.0004
Nickel		0.003	0.0004
Selenium		0.0014	0.00071
Silver		0.0004	0.00003
Sodium		10	10
Thallium		0.001	0.00028
Vanadium		0.002	0.000975
Zinc		0.0014	0.0007

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A MDL Date: 06/06/2011 08:38

Prep Method: 7471A

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury		0.02	0.0063

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A XMDL Date: 10/02/2008 10:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (ug/L)
Mercury		0.0002	0.000041

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-27549-1

SDG No.:

Instrument ID: SEA027 Date: 12/03/2010 07:40

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Iron		200	6010B

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-27549-1

SDG No.:

Instrument ID: TAC047 Date: 12/03/2010 07:40

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Potassium		500	6010B
Calcium		500	6010B
Magnesium		1000	6010B

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-27549-1

SDG No.:

Instrument ID: SEA044 Date: 03/01/2010 06:51

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Arsenic		5	6020
Aluminum		5	6020
Antimony		5	6020
Beryllium		5	6020
Cadmium		5	6020
Chromium		5	6020
Copper		5	6020
Lead		5	6020
Manganese		5	6020
Nickel		5	6020
Selenium		5	6020
Silver		5	6020
Thallium		5	6020
Zinc		5	6020
Barium		5	6020
Sodium		5	6020
Vanadium		5	6020
Cobalt		5	6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-27549-2	07/25/2011 14:45	91183	1.0086		50
580-27549-2 DU	07/25/2011 14:45	91183	1.1344		50
580-27549-2 MS	07/25/2011 14:45	91183	1.0122		50
580-27549-2 MSD	07/25/2011 14:45	91183	1.0440		50
580-27549-1	07/25/2011 14:45	91183	1.0023		50
580-27549-3	07/25/2011 14:45	91183	1.1262		50
580-27549-4	07/25/2011 14:45	91183	1.1695		50
580-27549-5	07/25/2011 14:45	91183	1.1221		50
MB 580-91183/13-A	07/25/2011 14:45	91183	1.0		50
LCS 580-91183/14-A	07/25/2011 14:45	91183	1.0		50
LCSD 580-91183/15-A	07/25/2011 14:45	91183	1.0		50
LCSSRM 580-91183/16-A	07/25/2011 14:45	91183	0.5013		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-27549-2	07/25/2011 14:45	91183	1.0086		50
580-27549-2 DU	07/25/2011 14:45	91183	1.1344		50
580-27549-2 MS	07/25/2011 14:45	91183	1.0122		50
580-27549-2 MSD	07/25/2011 14:45	91183	1.0440		50
580-27549-1	07/25/2011 14:45	91183	1.0023		50
580-27549-3	07/25/2011 14:45	91183	1.1262		50
580-27549-4	07/25/2011 14:45	91183	1.1695		50
580-27549-5	07/25/2011 14:45	91183	1.1221		50
MB 580-91183/13-A	07/25/2011 14:45	91183	1.0		50
LCS 580-91183/14-A	07/25/2011 14:45	91183	1.0		50
LCSD 580-91183/15-A	07/25/2011 14:45	91183	1.0		50
LCSSRM 580-91183/16-A	07/25/2011 14:45	91183	0.5013		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-27549-5	07/26/2011 10:32	91239	0.6900		50
580-27549-5 DU	07/26/2011 10:32	91239	0.6622		50
580-27549-5 MS	07/26/2011 10:32	91239	0.7375		50
580-27549-5 MSD	07/26/2011 10:32	91239	0.6259		50
580-27549-1	07/26/2011 10:32	91239	0.5905		50
580-27549-2	07/26/2011 10:32	91239	0.6993		50
580-27549-3	07/26/2011 10:32	91239	0.6563		50
580-27549-4	07/26/2011 10:32	91239	0.6109		50
MB 580-91239/23-A	07/26/2011 10:34	91239	0.6		50
LCS 580-91239/24-A	07/26/2011 10:34	91239	0.6		50
LCSD 580-91239/25-A	07/26/2011 10:34	91239	0.6		50
LCSSRM 580-91239/26-A	07/26/2011 10:34	91239	0.1011		50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: SEA027 Method: 6010B

Start Date: 07/27/2011 08:46 End Date: 07/27/2011 12:56

Lab Sample ID	D / F	Type	Time	Analytes																			
				Fe																			
STD0 580-91396/1 IC			08:46	X																			
STD1 580-91396/2 IC			08:51	X																			
STD2 580-91396/3 IC			08:57	X																			
STD3 580-91396/4 IC			09:03	X																			
STD4 580-91396/5 IC			09:08	X																			
ICV 580-91396/6	1		09:13	X																			
ICB 580-91396/7	1		09:18	X																			
CRI 580-91396/8	1		09:24	X																			
ICSA 580-91396/9	1		09:35	X																			
ICSAB 580-91396/10	1		09:41	X																			
CCV 580-91396/11			09:46																				
CCB 580-91396/12			09:52																				
ZZZZZZ			09:57																				
ZZZZZZ			10:02																				
ZZZZZZ			10:08																				
ZZZZZZ			10:14																				
ZZZZZZ			10:20																				
ZZZZZZ			10:25																				
ZZZZZZ			10:31																				
ZZZZZZ			10:37																				
ZZZZZZ			10:43																				
ZZZZZZ			10:48																				
CCV 580-91396/23	1		10:54	X																			
CCB 580-91396/24	1		11:00	X																			
ZZZZZZ			11:06																				
ZZZZZZ			11:12																				
MB 580-91183/13-A	1	T	11:17	X																			
LCS 580-91183/14-A	1	T	11:23	X																			
LCSD 580-91183/15-A	1	T	11:30	X																			
LCSSRM 580-91183/16-A	1	T	11:35	X																			
580-27549-2 SD	500	T	11:41	X																			
580-27549-2	100	T	11:47	X																			
580-27549-2 DU	100	T	11:53	X																			
CCV 580-91396/34	1		11:58	X																			
CCB 580-91396/35	1		12:04	X																			
580-27549-2 MS	100	T	12:10	X																			
580-27549-2 MSD	100	T	12:16	X																			
580-27549-2 PDS	100	T	12:21	X																			
580-27549-1	100	T	12:27	X																			
580-27549-3	100	T	12:33	X																			
580-27549-4	100	T	12:38	X																			
580-27549-5	100	T	12:44	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: SEA027 Method: 6010B

Start Date: 07/27/2011 08:46 End Date: 07/27/2011 12:56

Lab Sample ID	D / F	Type	Time	Analytes																		
				Fe																		
CCV 580-91396/43	1		12:50	X																		
CCB 580-91396/44	1		12:56	X																		

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 07/26/2011 14:17 End Date: 07/26/2011 21:08

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ca	K	Mg																	
STD0 580-91328/1 IC			14:17	X	X	X																	
STD1 580-91328/2 IC			14:23	X	X	X																	
STD2 580-91328/3 IC			14:30	X	X	X																	
STD3 580-91328/4 IC			14:36	X	X	X																	
STD4 580-91328/5 IC			14:42	X	X	X																	
ICV 580-91328/6	1		14:48	X	X	X																	
ICB 580-91328/7	1		14:57	X	X	X																	
CRI 580-91328/8	1		15:03	X	X	X																	
ICSA 580-91328/9	1		15:21	X	X	X																	
ICSAB 580-91328/10	1		15:30	X	X	X																	
CCV 580-91328/11	1		17:11	X	X	X																	
CCB 580-91328/12	1		17:18	X	X	X																	
MB 580-91183/13-A	1	T	17:27	X	X	X																	
LCS 580-91183/14-A	1	T	17:33	X	X	X																	
LCSD 580-91183/15-A	1	T	17:39	X	X	X																	
LCSSRM 580-91183/16-A	1	T	17:46	X	X	X																	
580-27549-2 SD	5	T	17:52	X	X	X																	
580-27549-2	1	T	17:58	X	X	X																	
580-27549-2 DU	1	T	18:05	X	X	X																	
580-27549-2 MS	1	T	18:11	X	X	X																	
580-27549-2 MSD	1	T	18:18	X	X	X																	
580-27549-2 PDS	1	T	18:24	X	X	X																	
CCV 580-91328/23	1		18:31	X	X	X																	
CCB 580-91328/24	1		18:39	X	X	X																	
580-27549-1	1	T	18:48	X	X	X																	
580-27549-3	1	T	18:55	X	X	X																	
580-27549-4	1	T	19:02	X	X	X																	
580-27549-5	1	T	19:08	X	X	X																	
CCV 580-91328/29	1		19:15	X	X	X																	
CCB 580-91328/30	1		19:23	X	X	X																	
ZZZZZZ			19:32																				
ZZZZZZ			19:39																				
ZZZZZZ			19:45																				
ZZZZZZ			19:51																				
ZZZZZZ			19:58																				
ZZZZZZ			20:04																				
ZZZZZZ			20:11																				
ZZZZZZ			20:17																				
ZZZZZZ			20:23																				
ZZZZZZ			20:30																				
CCV 580-91328/41			20:36																				
CCB 580-91328/42			20:42																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 07/26/2011 14:17 End Date: 07/26/2011 21:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	K	Mg																	
ZZZZZZ			20:49																				
ZZZZZZ			20:55																				
CCV 580-91328/45			21:02																				
CCB 580-91328/46			21:08																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 07/26/2011 08:11 End Date: 07/26/2011 15:04

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
STD0 580-91299/1 IC	1		08:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD1 580-91299/2 IC	1		08:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD2 580-91299/3 IC	1		08:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD3 580-91299/4 IC	1		08:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD4 580-91299/5 IC	1		08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD5 580-91299/6 IC	1		08:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICV 580-91299/7	1		08:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICB 580-91299/8	1		08:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CRI 580-91299/9	1		08:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICSA 580-91299/10	1		08:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICSAB 580-91299/11	1		09:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			10:30																				
ZZZZZZ			10:44																				
ZZZZZZ			10:50																				
ZZZZZZ			11:04																				
ZZZZZZ			11:17																				
ZZZZZZ			11:24																				
ZZZZZZ			11:31																				
ZZZZZZ			11:38																				
ZZZZZZ			11:44																				
ZZZZZZ			11:51																				
ZZZZZZ			11:56																				
ZZZZZZ			12:01																				
ZZZZZZ			12:06																				
ZZZZZZ			12:10																				
ZZZZZZ			12:15																				
ZZZZZZ			12:20																				
CCV 580-91299/28	1		12:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-91299/29	1		12:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MB 580-91183/13-A	10	T	12:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 580-91183/14-A	50	T	12:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSD 580-91183/15-A	50	T	12:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSSRM 580-91183/16-A	20	T	12:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-91299/34	1		12:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-91299/35	1		13:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-2 SD	50	T	13:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-2	10	T	13:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-2 DU	10	T	13:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-2 MS	50	T	13:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-2 MSD	50	T	13:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-2 PDS	50	T	13:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-91299/42	1		13:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 07/26/2011 08:11 End Date: 07/26/2011 15:04

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
CCB 580-91299/43	1		13:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			14:03																				
CCV 580-91299/45			14:07																				
CCB 580-91299/46			14:11																				
ZZZZZZ			14:23																				
CCV 580-91299/48	1		14:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-91299/49	1		14:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-1	10	T	14:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-3	10	T	14:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-4	10	T	14:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-27549-5	10	T	14:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			14:49																				
ZZZZZZ			14:53																				
ZZZZZZ			14:57																				
CCV 580-91299/57	1		15:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-91299/58	1		15:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 07/26/2011 12:55 End Date: 07/26/2011 14:07

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
STD0 580-91309/1 IC			12:55	X																			
STD1 580-91309/2 IC			12:56	X																			
STD2 580-91309/3 IC			12:58	X																			
STD3 580-91309/4 IC			12:59	X																			
STD4 580-91309/5 IC			13:01	X																			
STD5 580-91309/6 IC			13:03	X																			
ICV 580-91309/7	1		13:05	X																			
ICB 580-91309/8	1		13:07	X																			
CCV 580-91309/9	1		13:10	X																			
CCB 580-91309/10	1		13:12	X																			
MB 580-91239/23-A	1	T	13:14	X																			
LCS 580-91239/24-A	1	T	13:16	X																			
LCSD 580-91239/25-A	1	T	13:17	X																			
LCSSRM 580-91239/26-A	10	T	13:19	X																			
580-27549-5	1	T	13:21	X																			
580-27549-5 DU	1	T	13:23	X																			
580-27549-5 MS	1	T	13:24	X																			
580-27549-5 MSD	1	T	13:26	X																			
580-27549-1	1	T	13:28	X																			
580-27549-2	1	T	13:30	X																			
CCV 580-91309/21	1		13:31	X																			
CCB 580-91309/22	1		13:33	X																			
580-27549-3	1	T	13:35	X																			
580-27549-4	1	T	13:36	X																			
ZZZZZZ			13:38																				
ZZZZZZ			13:40																				
ZZZZZZ			13:42																				
ZZZZZZ			13:43																				
ZZZZZZ			13:45																				
ZZZZZZ			13:47																				
ZZZZZZ			13:48																				
ZZZZZZ			13:50																				
CCV 580-91309/33	1		13:52	X																			
CCB 580-91309/34	1		13:53	X																			
ZZZZZZ			13:55																				
ZZZZZZ			13:57																				
ZZZZZZ			13:58																				
ZZZZZZ			14:00																				
ZZZZZZ			14:02																				
ZZZZZZ			14:04																				
CCV 580-91309/41			14:05																				
CCB 580-91309/42			14:07																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 07/26/2011 12:55 End Date: 07/26/2011 14:07

Prep Types
T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 07/26/2011 End Date: 07/26/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q
STD0 580-91299/1 IC	08:11	100		100		100		100		100	
STD1 580-91299/2 IC	08:15	101		100		102		101		99	
STD2 580-91299/3 IC	08:20	99		99		102		100		99	
STD3 580-91299/4 IC	08:24	97		97		103		100		97	
STD4 580-91299/5 IC	08:28	96		96		102		101		96	
STD5 580-91299/6 IC	08:33	95		92		102		100		94	
ICV 580-91299/7	08:38	95		98		103		101		96	
ICB 580-91299/8	08:44	97		97		102		101		99	
CRI 580-91299/9	08:50	97		97		102				99	
ICSA 580-91299/10	08:56	90		89		99		96		86	
ICSAB 580-91299/11	09:01	89		92		100		98		87	
CCV 580-91299/28	12:30	96		94		108		106		98	
CCB 580-91299/29	12:34	98		99		110		107		103	
MB 580-91183/13-A	12:44			1		111				101	
LCS 580-91183/14-A	12:48			9		108				102	
LCSD 580-91183/15-A	12:52			9		110				102	
LCSSRM	12:55					109				100	
CCV 580-91299/34	12:59	96		98		112		108		100	
CCB 580-91299/35	13:03	99		102		112		109		102	
580-27549-2 SD	13:07	101		136		112		1		100	
580-27549-2	13:10					111				95	
580-27549-2 DU	13:14					113				95	
580-27549-2 MS	13:18			1		115				100	
580-27549-2 MSD	13:22			1		114				100	
580-27549-2 PDS	13:26	104		136		115				101	
CCV 580-91299/42	13:29	98		96		112		108		99	
CCB 580-91299/43	13:33	102		99		113		110		104	
CCV 580-91299/48	14:26	101		100		113		108		99	
CCB 580-91299/49	14:30	103		102		113		109		103	
580-27549-1	14:34					113				93	
580-27549-3	14:38					110				90	
580-27549-4	14:42					110				91	
580-27549-5	14:45					111				96	
CCV 580-91299/57	15:00	99		95		110		106		98	
CCB 580-91299/58	15:04	101		98		110		107		100	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 07/26/2011 End Date: 07/26/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q	Element	Q
STD0 580-91299/1 IC	08:11	100		100		100					
STD1 580-91299/2 IC	08:15	100		100		100					
STD2 580-91299/3 IC	08:20	101		100		100					
STD3 580-91299/4 IC	08:24	99		99		99					
STD4 580-91299/5 IC	08:28	99		100		97					
STD5 580-91299/6 IC	08:33	97		99		95					
ICV 580-91299/7	08:38	98		101		97					
ICB 580-91299/8	08:44	98		100		99					
CRI 580-91299/9	08:50	99		100							
ICSA 580-91299/10	08:56	94		95		87					
ICSAB 580-91299/11	09:01	95		96		89					
CCV 580-91299/28	12:30	103		106		102					
CCB 580-91299/29	12:34	104		108		106					
MB 580-91183/13-A	12:44	105		108							
LCS 580-91183/14-A	12:48	104		107							
LCSD 580-91183/15-A	12:52	104		108							
LCSSRM	12:55	104		107							
CCV 580-91299/34	12:59	103		108		103					
CCB 580-91299/35	13:03	105		108		107					
580-27549-2 SD	13:07	103		107							
580-27549-2	13:10	101		104							
580-27549-2 DU	13:14	101		104							
580-27549-2 MS	13:18	104		108							
580-27549-2 MSD	13:22	103		106							
580-27549-2 PDS	13:26	104		108							
CCV 580-91299/42	13:29	104		107		102					
CCB 580-91299/43	13:33	106		109		105					
CCV 580-91299/48	14:26	103		108		101					
CCB 580-91299/49	14:30	104		108		104					
580-27549-1	14:34	99		103							
580-27549-3	14:38	98		100							
580-27549-4	14:42	98		100							
580-27549-5	14:45	102		103							
CCV 580-91299/57	15:00	101		105		100					
CCB 580-91299/58	15:04	101		105		102					

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank 1 **Date Collected: 7/27/2011 8:46:18 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:10 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	487806.5	20396.27	4.18%	100.0	%
Sc 361.383	983809.6	40501.08	4.12%	100.0	%
Al 308.215†	-36356.6	1462.51	4.02%	[0.00]	mg/L
Fe 273.955†	-72.8	4.80	6.59%	[0.00]	mg/L
Ca 315.887†	-8697.6	376.30	4.33%	[0.00]	mg/L
Mg 279.077†	-1372.0	51.15	3.73%	[0.00]	mg/L

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: Standard 1 00019 **Date Collected: 7/27/2011 8:51:01 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:10 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Standard 1 00019

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	487653.8	13969.36	2.86%	99.97	%
Sc 361.383	984468.9	28346.58	2.88%	100.1	%
Al 308.215†	15546.7	748.82	4.82%	[0.80]	mg/L
Fe 273.955†	14873.1	227.75	1.53%	[0.80]	mg/L
Ca 315.887†	123670.0	1878.28	1.52%	[1.6]	mg/L
Mg 279.077†	19797.8	325.74	1.65%	[1.60]	mg/L

==========

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: Standard 2 00020 **Date Collected: 7/27/2011 8:57:27 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:11 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Standard 2 00020

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	493743.4	22266.43	4.51%	101.2	%
Sc 361.383	995934.0	44953.45	4.51%	101.2	%
Al 308.215†	77427.5	1247.85	1.61%	[4.00]	mg/L
Fe 273.955†	72025.8	2594.33	3.60%	[4.00]	mg/L
Ca 315.887†	602907.3	21391.81	3.55%	[8.00]	mg/L
Mg 279.077†	97320.3	3373.93	3.47%	[8.00]	mg/L

==========

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: Standard 3 00019 **Date Collected: 7/27/2011 9:03:11 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:11 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Standard 3 00019

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	482600.1	3970.36	0.82%	98.93	%
Sc 361.383	968829.5	7891.38	0.81%	98.48	%
Al 308.215†	393715.2	5694.67	1.45%	[20.0]	mg/L
Fe 273.955†	349013.3	4372.57	1.25%	[20.0]	mg/L
Ca 315.887†	2956221.7	38537.56	1.30%	[40.0]	mg/L
Mg 279.077†	481949.6	6678.49	1.39%	[40.0]	mg/L

==========

Sequence No.: 5 **Autosampler Location: 5**

Sample ID: Standard 4 00019 **Date Collected: 7/27/2011 9:08:07 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:11 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Standard 4 00019

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	480911.4	5023.69	1.04%	98.59	%
Sc 361.383	961325.4	9931.31	1.03%	97.71	%
Al 308.215†	797984.0	13000.81	1.63%	[40.0]	mg/L
Fe 273.955†	681969.4	11603.93	1.70%	[40.0]	mg/L
Ca 315.887†	5847138.7	143433.09	2.45%	[80.0]	mg/L
Mg 279.077†	963948.2	16984.11	1.76%	[80.0]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Al 308.215	4	Lin Thru 0	0.0	19890	0.00000	0.999983	
Fe 273.955	4	Lin Thru 0	0.0	17140	0.00000	0.999945	
Ca 315.887	4	Lin Thru 0	0.0	73270	0.00000	0.999986	
Mg 279.077	4	Lin Thru 0	0.0	12050	0.00000	1.000000	

==========

Sequence No.: 6 **Autosampler Location: 8**
Sample ID: ICV 00014 **Date Collected: 7/27/2011 9:13:01 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:13 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICV 00014

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	486738.3	99.78	%	3.319				3.33%
Sc 361.383	982525.4	99.87	%	3.289				3.29%
Al 308.215†	98542.6	4.954	mg/L	0.1754	4.954	mg/L	0.1754	3.54%
QC value within limits for Al 308.215 Recovery = 99.08%								
Fe 273.955†	92870.9	5.419	mg/L	0.2585	5.419	mg/L	0.2585	4.77%
QC value within limits for Fe 273.955 Recovery = 108.39%								
Ca 315.887†	383383.1	5.232	mg/L	0.2484	5.232	mg/L	0.2484	4.75%
QC value within limits for Ca 315.887 Recovery = 104.65%								
Mg 279.077†	62770.7	5.209	mg/L	0.2442	5.209	mg/L	0.2442	4.69%
QC value within limits for Mg 279.077 Recovery = 104.18%								

All analyte(s) passed QC.

==========

Sequence No.: 7 **Autosampler Location: 1**
Sample ID: ICB **Date Collected: 7/27/2011 9:18:42 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:13 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	484209.3	99.26	%	4.092				4.12%
Sc 361.383	977158.8	99.32	%	4.073				4.10%
Al 308.215†	-1334.8	-0.0671	mg/L	0.07651	-0.0671	mg/L	0.07651	114.03%
QC value within limits for Al 308.215 Recovery = Not calculated								
Fe 273.955†	34.5	0.0020	mg/L	0.00040	0.0020	mg/L	0.00040	19.93%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Ca 315.887†	-651.2	-0.0089	mg/L	0.00556	-0.0089	mg/L	0.00556	62.51%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Mg 279.077†	7.3	0.0006	mg/L	0.00353	0.0006	mg/L	0.00353	580.60%
QC value within limits for Mg 279.077 Recovery = Not calculated								

All analyte(s) passed QC.

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Sequence No.: 8 **Autosampler Location: 9**
Sample ID: CRI 00019 **Date Collected: 7/27/2011 9:24:37 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:13 PM**
Logged In Analyst (Original) : palmquists

Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: CRI 00019

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	480730.9	98.55	%	1.726				1.75%
Sc 361.383	971487.6	98.75	%	1.710				1.73%
Al 308.215†	18091.8	0.9095	mg/L	0.01881	0.9095	mg/L	0.01881	2.07%
QC value within limits for Al 308.215 Recovery = 90.95%								
Fe 273.955†	3737.2	0.2181	mg/L	0.00370	0.2181	mg/L	0.00370	1.70%
QC value within limits for Fe 273.955 Recovery = 109.04%								
Ca 315.887†	83921.6	1.145	mg/L	0.0075	1.145	mg/L	0.0075	0.66%
QC value within limits for Ca 315.887 Recovery = 104.12%								
Mg 279.077†	13579.8	1.127	mg/L	0.0062	1.127	mg/L	0.0062	0.55%
QC value within limits for Mg 279.077 Recovery = 102.45%								

All analyte(s) passed QC.

==========

Sequence No.: 9 Autosampler Location: 5
Sample ID: HIGH-STD 00019 Date Collected: 7/27/2011 9:30:21 AM
Analyst: Data Type: Reprocessed on 7/27/2011 1:57:14 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: HIGH-STD 00019

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	498869.2	102.3	%	4.25				4.15%
Sc 361.383	997114.8	101.4	%	4.14				4.08%
Al 308.215†	786666.1	39.55	mg/L	0.814	39.55	mg/L	0.814	2.06%
QC value within limits for Al 308.215 Recovery = 98.87%								
Fe 273.955†	668789.8	39.03	mg/L	0.931	39.03	mg/L	0.931	2.39%
QC value within limits for Fe 273.955 Recovery = 97.57%								
Ca 315.887†	5670447.5	77.39	mg/L	3.774	77.39	mg/L	3.774	4.88%
QC value within limits for Ca 315.887 Recovery = 96.74%								
Mg 279.077†	943344.9	78.28	mg/L	1.769	78.28	mg/L	1.769	2.26%
QC value within limits for Mg 279.077 Recovery = 97.86%								

All analyte(s) passed QC.

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Sequence No.: 10 Autosampler Location: 10
Sample ID: ICSA 00035 Date Collected: 7/27/2011 9:35:12 AM
Analyst: Data Type: Reprocessed on 7/27/2011 1:57:14 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: ICSA 00035

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	471597.2	96.68	%	1.317				1.36%
Sc 361.383	919021.2	93.41	%	1.490				1.60%
Al 308.215†	9611864.7	483.2	mg/L	8.48	483.2	mg/L	8.48	1.76%
QC value within limits for Al 308.215 Recovery = 96.64%								
Fe 273.955†	3089830.6	180.3	mg/L	3.21	180.3	mg/L	3.21	1.78%
QC value within limits for Fe 273.955 Recovery = 90.15%								
Ca 315.887†	32595919.2	444.9	mg/L	7.63	444.9	mg/L	7.63	1.72%
QC value within limits for Ca 315.887 Recovery = 88.97%								
Mg 279.077†	5825192.0	483.4	mg/L	8.53	483.4	mg/L	8.53	1.76%
QC value within limits for Mg 279.077 Recovery = 96.68%								

All analyte(s) passed QC.

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Sequence No.: 11 Autosampler Location: 11
Sample ID: ICSAB 00027 Date Collected: 7/27/2011 9:41:14 AM
Analyst: Data Type: Reprocessed on 7/27/2011 1:57:15 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: ICSAB 00027

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Lu 261.542	472464.7	96.85 %	2.138				2.21%
Sc 361.383	917368.3	93.25 %	2.127				2.28%
Al 308.215†	9841761.6	494.7 mg/L	9.25	494.7 mg/L	9.25		1.87%
QC value within limits for Al 308.215 Recovery = 98.95%							
Fe 273.955†	3081965.2	179.8 mg/L	2.29	179.8 mg/L	2.29		1.28%
QC value within limits for Fe 273.955 Recovery = 89.92%							
Ca 315.887†	33176349.6	452.8 mg/L	8.81	452.8 mg/L	8.81		1.95%
QC value within limits for Ca 315.887 Recovery = 90.56%							
Mg 279.077†	5924413.3	491.6 mg/L	9.38	491.6 mg/L	9.38		1.91%
QC value within limits for Mg 279.077 Recovery = 98.33%							

All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 6**
Sample ID: CCV 00030 **Date Collected: 7/27/2011 9:46:18 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:15 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00030

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Lu 261.542	497138.1	101.9 %	5.42			5.32%
Sc 361.383	1001634.2	101.8 %	5.30			5.20%
Al 308.215†	191616.1	9.633 mg/L	0.3271	9.633 mg/L	0.3271	3.40%
QC value within limits for Al 308.215 Recovery = 96.33%						
Fe 273.955†	174097.1	10.16 mg/L	0.465	10.16 mg/L	0.465	4.58%
QC value within limits for Fe 273.955 Recovery = 101.59%						
Ca 315.887†	1462331.9	19.96 mg/L	0.895	19.96 mg/L	0.895	4.49%
QC value within limits for Ca 315.887 Recovery = 99.79%						
Mg 279.077†	238283.7	19.77 mg/L	0.873	19.77 mg/L	0.873	4.42%
QC value within limits for Mg 279.077 Recovery = 98.87%						

All analyte(s) passed QC.

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 7/27/2011 9:52:00 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:16 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Lu 261.542	489176.6	100.3 %	5.65			5.63%
Sc 361.383	987285.1	100.4 %	5.62			5.60%
Al 308.215†	-536.1	-0.0270 mg/L	0.10639	-0.0270 mg/L	0.10639	394.74%
QC value within limits for Al 308.215 Recovery = Not calculated						
Fe 273.955†	240.1	0.0140 mg/L	0.00029	0.0140 mg/L	0.00029	2.09%
QC value within limits for Fe 273.955 Recovery = Not calculated						
Ca 315.887†	201.5	0.0028 mg/L	0.00608	0.0028 mg/L	0.00608	221.26%
QC value within limits for Ca 315.887 Recovery = Not calculated						
Mg 279.077†	799.2	0.0663 mg/L	0.00402	0.0663 mg/L	0.00402	6.06%
QC value within limits for Mg 279.077 Recovery = Not calculated						

All analyte(s) passed QC.

Sequence No.: 14 **Autosampler Location: 14**
Sample ID: MB 580-90943/13-B **Date Collected: 7/27/2011 9:57:06 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:16 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MB 580-90943/13-B

Analyte	Mean Corrected Intensity	Calib. Conc. Units	Std.Dev.	Sample Conc. Units	Std.Dev.	RSD
Lu 261.542	481473.4	98.70 %	3.826			3.88%
Sc 361.383	971550.1	98.75 %	3.883			3.93%
Al 308.215†	-940.0	-0.0473 mg/L	0.07075	-0.0473 mg/L	0.07075	149.73%
Fe 273.955†	256.8	0.0150 mg/L	0.00045	0.0150 mg/L	0.00045	2.99%
Ca 315.887†	704.0	0.0096 mg/L	0.00549	0.0096 mg/L	0.00549	57.14%
Mg 279.077†	658.3	0.0546 mg/L	0.00086	0.0546 mg/L	0.00086	1.57%

Sequence No.: 15 Autosampler Location: 15
Sample ID: LCS 580-91205/18-A Date Collected: 7/27/2011 10:02:49 AM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:16 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LCS 580-91205/18-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	501125.3	102.7	%	1.39				1.35%
Sc 361.383	1005969.8	102.3	%	1.42				1.39%
Al 308.215†	81097.5	4.077	mg/L	0.0678	4.077	mg/L	0.0678	1.66%
Fe 273.955†	397360.9	23.19	mg/L	0.516	23.19	mg/L	0.516	2.23%
Ca 315.887†	1512242.9	20.64	mg/L	0.442	20.64	mg/L	0.442	2.14%
Mg 279.077†	248265.8	20.60	mg/L	0.455	20.60	mg/L	0.455	2.21%

Sequence No.: 16 Autosampler Location: 16
Sample ID: LCSD 580-91205/19-A Date Collected: 7/27/2011 10:08:40 AM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:17 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LCSD 580-91205/19-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	505083.4	103.5	%	1.43				1.38%
Sc 361.383	1013285.1	103.0	%	1.37				1.33%
Al 308.215†	82514.3	4.148	mg/L	0.1281	4.148	mg/L	0.1281	3.09%
Fe 273.955†	403588.1	23.55	mg/L	0.748	23.55	mg/L	0.748	3.18%
Ca 315.887†	1533641.9	20.93	mg/L	0.644	20.93	mg/L	0.644	3.08%
Mg 279.077†	251941.5	20.91	mg/L	0.683	20.91	mg/L	0.683	3.27%

Sequence No.: 17 Autosampler Location: 17
Sample ID: LCSSRM 580-91205/20-A Date Collected: 7/27/2011 10:14:23 AM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:17 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LCSSRM 580-91205/20-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	517309.6	106.0	%	2.37				2.23%
Sc 361.383	1036380.5	105.3	%	2.24				2.12%
Al 308.215†	81583.4	4.101	mg/L	0.0952	4.101	mg/L	0.0952	2.32%
Fe 273.955†	395786.2	23.10	mg/L	0.627	23.10	mg/L	0.627	2.72%
Ca 315.887†	1504817.9	20.54	mg/L	0.542	20.54	mg/L	0.542	2.64%
Mg 279.077†	247301.8	20.52	mg/L	0.555	20.52	mg/L	0.555	2.71%

Sequence No.: 18 Autosampler Location: 18
Sample ID: 580-27370-E-1-A sd Date Collected: 7/27/2011 10:20:08 AM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:17 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-27370-E-1-A sd

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	512305.2	105.0	%	1.96				1.86%
Sc 361.383	1035564.0	105.3	%	1.97				1.88%
Al 308.215†	1626.2	0.0818	mg/L	0.02727	0.0818	mg/L	0.02727	33.35%
Fe 273.955†	223.8	0.0131	mg/L	0.00022	0.0131	mg/L	0.00022	1.65%
Ca 315.887†	600050.0	8.190	mg/L	0.0260	8.190	mg/L	0.0260	0.32%
Mg 279.077†	20772.7	1.724	mg/L	0.0023	1.724	mg/L	0.0023	0.14%

Sequence No.: 19 Autosampler Location: 19
Sample ID: 580-27370-E-1-A Date Collected: 7/27/2011 10:25:49 AM

Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:18 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-27370-E-1-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	517506.5	106.1	%	1.62				1.53%
Sc 361.383	1048781.9	106.6	%	1.69				1.58%
Al 308.215†	823.1	0.0414	mg/L	0.02381	0.0414	mg/L	0.02381	57.53%
Fe 273.955†	560.6	0.0327	mg/L	0.00090	0.0327	mg/L	0.00090	2.76%
Ca 315.887†	3034743.7	41.42	mg/L	1.527	41.42	mg/L	1.527	3.69%
Mg 279.077†	104428.1	8.666	mg/L	0.2240	8.666	mg/L	0.2240	2.58%

Sequence No.: 20 Autosampler Location: 20
Sample ID: 580-27370-E-1-B DU Date Collected: 7/27/2011 10:31:34 AM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:18 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-27370-E-1-B DU

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	537920.2	110.3	%	0.95				0.86%
Sc 361.383	1088311.9	110.6	%	0.93				0.84%
Al 308.215†	2062.1	0.1037	mg/L	0.01342	0.1037	mg/L	0.01342	12.95%
Fe 273.955†	600.1	0.0350	mg/L	0.00053	0.0350	mg/L	0.00053	1.53%
Ca 315.887†	3095169.1	42.24	mg/L	0.263	42.24	mg/L	0.263	0.62%
Mg 279.077†	108069.9	8.968	mg/L	0.0904	8.968	mg/L	0.0904	1.01%

Sequence No.: 21 Autosampler Location: 21
Sample ID: 580-27370-E-1-C MS Date Collected: 7/27/2011 10:37:21 AM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:19 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-27370-E-1-C MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	493551.5	101.2	%	3.21				3.18%
Sc 361.383	992896.1	100.9	%	3.13				3.10%
Al 308.215†	87321.9	4.390	mg/L	0.0974	4.390	mg/L	0.0974	2.22%
Fe 273.955†	419183.3	24.46	mg/L	0.818	24.46	mg/L	0.818	3.34%
Ca 315.887†	4597032.3	62.74	mg/L	1.816	62.74	mg/L	1.816	2.90%
Mg 279.077†	371410.1	30.82	mg/L	1.017	30.82	mg/L	1.017	3.30%

Sequence No.: 22 Autosampler Location: 22
Sample ID: 580-27370-E-1-D MSD Date Collected: 7/27/2011 10:43:12 AM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:19 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-27370-E-1-D MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	501959.7	102.9	%	2.45				2.38%
Sc 361.383	1042014.1	105.9	%	5.33				5.03%
Al 308.215†	84512.2	4.248	mg/L	0.0957	4.248	mg/L	0.0957	2.25%
Fe 273.955†	402413.2	23.48	mg/L	0.764	23.48	mg/L	0.764	3.25%
Ca 315.887†	4718809.6	64.40	mg/L	1.958	64.40	mg/L	1.958	3.04%
Mg 279.077†	356320.1	29.57	mg/L	0.957	29.57	mg/L	0.957	3.24%

Sequence No.: 23 Autosampler Location: 23
Sample ID: 580-27370-E-1-A pds Date Collected: 7/27/2011 10:48:58 AM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 7/27/2011 1:57:19 PM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:

Dilution: **Sample Prep Vol:**

Mean Data: 580-27370-E-1-A pds

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	493545.0	101.2	%	2.53				2.50%
Sc 361.383	1015616.5	103.2	%	3.55				3.44%
Al 308.215†	82144.8	4.129	mg/L	0.1293	4.129	mg/L	0.1293	3.13%
Fe 273.955†	396562.0	23.14	mg/L	0.884	23.14	mg/L	0.884	3.82%
Ca 315.887†	4481949.3	61.17	mg/L	1.926	61.17	mg/L	1.926	3.15%
Mg 279.077†	347604.2	28.85	mg/L	1.105	28.85	mg/L	1.105	3.83%

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Sequence No.: 24 **Autosampler Location: 6**
Sample ID: CCV 00030 **Date Collected: 7/27/2011 10:54:45 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:20 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00030

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	483937.8	99.21	%	5.839				5.89%
Sc 361.383	975985.3	99.20	%	5.732				5.78%
Al 308.215†	192905.9	9.697	mg/L	0.3086	9.697	mg/L	0.3086	3.18%
QC value within limits for Al 308.215 Recovery = 96.97%								
Fe 273.955†	176461.1	10.30	mg/L	0.459	10.30	mg/L	0.459	4.46%
QC value within limits for Fe 273.955 Recovery = 102.97%								
Ca 315.887†	1480312.6	20.20	mg/L	0.888	20.20	mg/L	0.888	4.40%
QC value within limits for Ca 315.887 Recovery = 101.02%								
Mg 279.077†	240400.2	19.95	mg/L	0.893	19.95	mg/L	0.893	4.48%
QC value within limits for Mg 279.077 Recovery = 99.75%								

All analyte(s) passed QC.

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Sequence No.: 25 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 7/27/2011 11:00:26 AM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:20 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	463930.1	95.11	%	3.822				4.02%
Sc 361.383	938537.6	95.40	%	3.831				4.02%
Al 308.215†	-2735.2	-0.1375	mg/L	0.08734	-0.1375	mg/L	0.08734	63.52%
QC value within limits for Al 308.215 Recovery = Not calculated								
Fe 273.955†	27.2	0.0016	mg/L	0.00039	0.0016	mg/L	0.00039	24.86%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Ca 315.887†	-836.4	-0.0114	mg/L	0.00575	-0.0114	mg/L	0.00575	50.34%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Mg 279.077†	-1.3	-0.0001	mg/L	0.00432	-0.0001	mg/L	0.00432	>999.9%
QC value within limits for Mg 279.077 Recovery = Not calculated								

All analyte(s) passed QC.

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Sequence No.: 26 **Autosampler Location: 24**
Sample ID: 580-27377-E-1-A **Date Collected: 7/27/2011 11:06:07 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:20 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27377-E-1-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	493110.9	101.1	%	2.26				2.24%
Sc 361.383	1001381.7	101.8	%	2.17				2.13%
Al 308.215†	-404.9	-0.0204	mg/L	0.04959	-0.0204	mg/L	0.04959	243.65%
Fe 273.955†	8173.5	0.4770	mg/L	0.01824	0.4770	mg/L	0.01824	3.82%
Ca 315.887†	4437605.7	60.56	mg/L	1.451	60.56	mg/L	1.451	2.40%
Mg 279.077†	144981.3	12.03	mg/L	0.427	12.03	mg/L	0.427	3.55%

Sequence No.: 27 **Autosampler Location: 25**
Sample ID: 580-27463-D-1-C **Date Collected: 7/27/2011 11:12:00 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:21 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27463-D-1-C

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	502158.9	102.9	%	0.26				0.25%
Sc 361.383	1035284.3	105.2	%	0.24				0.23%
Al 308.215†	7551.1	0.3796	mg/L	0.01444	0.3796	mg/L	0.01444	3.80%
Fe 273.955†	649.2	0.0379	mg/L	0.00050	0.0379	mg/L	0.00050	1.31%
Ca 315.887†	44342633.6	605.2	mg/L	3.88	605.2	mg/L	3.88	0.64%
Mg 279.077†	2449.6	0.2033	mg/L	0.00486	0.2033	mg/L	0.00486	2.39%

Sequence No.: 28 **Autosampler Location: 26**
Sample ID: MB 580-91183/13-A **Date Collected: 7/27/2011 11:17:52 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:21 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MB 580-91183/13-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	492498.4	101.0	%	5.64				5.59%
Sc 361.383	995169.8	101.2	%	5.60				5.54%
Al 308.215†	1291.2	0.0649	mg/L	0.09638	0.0649	mg/L	0.09638	148.48%
Fe 273.955†	131.8	0.0077	mg/L	0.00019	0.0077	mg/L	0.00019	2.50%
Ca 315.887†	5459.8	0.0745	mg/L	0.00481	0.0745	mg/L	0.00481	6.46%
Mg 279.077†	136.6	0.0113	mg/L	0.00627	0.0113	mg/L	0.00627	55.29%

Sequence No.: 29 **Autosampler Location: 27**
Sample ID: LCS 580-91183/14-A **Date Collected: 7/27/2011 11:23:33 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:22 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LCS 580-91183/14-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	511507.9	104.9	%	3.36				3.21%
Sc 361.383	1027000.5	104.4	%	3.38				3.24%
Al 308.215†	79695.5	4.006	mg/L	0.0954	4.006	mg/L	0.0954	2.38%
Fe 273.955†	390731.0	22.80	mg/L	0.836	22.80	mg/L	0.836	3.66%
Ca 315.887†	1492439.7	20.37	mg/L	0.742	20.37	mg/L	0.742	3.64%
Mg 279.077†	239479.0	19.87	mg/L	0.727	19.87	mg/L	0.727	3.66%

Sequence No.: 30 **Autosampler Location: 28**
Sample ID: LCSD 580-91183/15-A **Date Collected: 7/27/2011 11:30:10 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:22 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LCSD 580-91183/15-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	510949.8	104.7	%	3.31				3.16%
Sc 361.383	1027098.2	104.4	%	3.27				3.14%
Al 308.215†	80609.8	4.052	mg/L	0.0927	4.052	mg/L	0.0927	2.29%
Fe 273.955†	395197.3	23.06	mg/L	0.771	23.06	mg/L	0.771	3.34%
Ca 315.887†	1508236.2	20.58	mg/L	0.676	20.58	mg/L	0.676	3.28%
Mg 279.077†	242473.8	20.12	mg/L	0.663	20.12	mg/L	0.663	3.29%

Sequence No.: 31 **Autosampler Location: 29**

Sample ID: LCSSRM 580-91183/16-A
Analyst: SEA027/SN069N9042002
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Date Collected: 7/27/2011 11:35:54 AM
Data Type: Reprocessed on 7/27/2011 1:57:22 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: LCSSRM 580-91183/16-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	529204.5	108.5	%	3.64				3.36%
Sc 361.383	1094121.4	111.2	%	3.67				3.30%
Al 308.215†	1549980.6	77.92	mg/L	2.207	77.92	mg/L	2.207	2.83%
Fe 273.955†	2034372.3	118.7	mg/L	3.64	118.7	mg/L	3.64	3.06%
Ca 315.887†	5358132.5	73.13	mg/L	0.834	73.13	mg/L	0.834	1.14%
Mg 279.077†	337718.1	28.03	mg/L	0.888	28.03	mg/L	0.888	3.17%

Sequence No.: 32
Sample ID: 580-27549-A-2-B sd 1/500
Analyst: SEA027/SN069N9042002
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Autosampler Location: 30
Date Collected: 7/27/2011 11:41:41 AM
Data Type: Reprocessed on 7/27/2011 1:57:23 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 580-27549-A-2-B sd 1/500

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	552572.4	113.3	%	8.80				7.76%
Sc 361.383	1114767.5	113.3	%	8.71				7.69%
Al 308.215†	19125.3	0.9614	mg/L	0.05008	0.9614	mg/L	0.05008	5.21%
Fe 273.955†	19500.8	1.138	mg/L	0.1128	1.138	mg/L	0.1128	9.92%
Ca 315.887†	71396.7	0.9744	mg/L	0.08552	0.9744	mg/L	0.08552	8.78%
Mg 279.077†	4983.8	0.4136	mg/L	0.03126	0.4136	mg/L	0.03126	7.56%

Sequence No.: 33
Sample ID: 580-27549-A-2-B 1/100
Analyst: SEA027/SN069N9042002
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Autosampler Location: 31
Date Collected: 7/27/2011 11:47:21 AM
Data Type: Reprocessed on 7/27/2011 1:57:23 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 580-27549-A-2-B 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	521249.4	106.9	%	4.48				4.19%
Sc 361.383	1053262.2	107.1	%	4.51				4.22%
Al 308.215†	85664.6	4.306	mg/L	0.0940	4.306	mg/L	0.0940	2.18%
Fe 273.955†	102447.2	5.978	mg/L	0.2349	5.978	mg/L	0.2349	3.93%
Ca 315.887†	24170.1	0.3299	mg/L	0.00947	0.3299	mg/L	0.00947	2.87%
Mg 279.077†	25313.2	2.101	mg/L	0.0824	2.101	mg/L	0.0824	3.92%

Sequence No.: 34
Sample ID: 580-27549-A-2-C DU 1/100
Analyst: SEA027/SN069N9042002
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Autosampler Location: 32
Date Collected: 7/27/2011 11:53:03 AM
Data Type: Reprocessed on 7/27/2011 1:57:23 PM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 580-27549-A-2-C DU 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	529625.8	108.6	%	6.21				5.72%
Sc 361.383	1070333.7	108.8	%	6.13				5.64%
Al 308.215†	92935.3	4.672	mg/L	0.0947	4.672	mg/L	0.0947	2.03%
Fe 273.955†	106967.4	6.242	mg/L	0.2543	6.242	mg/L	0.2543	4.07%
Ca 315.887†	23621.5	0.3224	mg/L	0.00696	0.3224	mg/L	0.00696	2.16%
Mg 279.077†	28939.5	2.402	mg/L	0.0870	2.402	mg/L	0.0870	3.62%

Sequence No.: 35
Sample ID: CCV 00030
Analyst:
Logged In Analyst (Original) : palmquists
Autosampler Location: 6
Date Collected: 7/27/2011 11:58:44 AM
Data Type: Reprocessed on 7/27/2011 1:57:24 PM

Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00030

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	509901.9	104.5	%	5.47				5.23%
Sc 361.383	1026817.0	104.4	%	5.31				5.08%
Al 308.215†	195028.4	9.804	mg/L	0.2923	9.804	mg/L	0.2923	2.98%
QC value within limits for Al 308.215 Recovery = 98.04%								
Fe 273.955†	176468.3	10.30	mg/L	0.432	10.30	mg/L	0.432	4.20%
QC value within limits for Fe 273.955 Recovery = 102.98%								
Ca 315.887†	1482262.5	20.23	mg/L	0.827	20.23	mg/L	0.827	4.09%
QC value within limits for Ca 315.887 Recovery = 101.15%								
Mg 279.077†	240955.3	20.00	mg/L	0.814	20.00	mg/L	0.814	4.07%
QC value within limits for Mg 279.077 Recovery = 99.98%								

All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 7/27/2011 12:04:25 PM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:24 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	502169.1	102.9	%	2.63				2.55%
Sc 361.383	1014024.2	103.1	%	2.67				2.59%
Al 308.215†	-192.0	-0.0096	mg/L	0.04241	-0.0096	mg/L	0.04241	439.46%
QC value within limits for Al 308.215 Recovery = Not calculated								
Fe 273.955†	70.4	0.0041	mg/L	0.00023	0.0041	mg/L	0.00023	5.58%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Ca 315.887†	-266.0	-0.0036	mg/L	0.00283	-0.0036	mg/L	0.00283	77.98%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Mg 279.077†	99.0	0.0082	mg/L	0.00331	0.0082	mg/L	0.00331	40.33%
QC value within limits for Mg 279.077 Recovery = Not calculated								

All analyte(s) passed QC.

Sequence No.: 37 **Autosampler Location: 33**
Sample ID: 580-27549-A-2-D MS 1/100 **Date Collected: 7/27/2011 12:10:14 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:25 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27549-A-2-D MS 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	525295.9	107.7	%	2.84				2.64%
Sc 361.383	1061035.7	107.8	%	2.81				2.60%
Al 308.215†	86711.1	4.359	mg/L	0.1295	4.359	mg/L	0.1295	2.97%
Fe 273.955†	102248.7	5.967	mg/L	0.2223	5.967	mg/L	0.2223	3.72%
Ca 315.887†	57833.4	0.7893	mg/L	0.02541	0.7893	mg/L	0.02541	3.22%
Mg 279.077†	27437.9	2.277	mg/L	0.0811	2.277	mg/L	0.0811	3.56%

Sequence No.: 38 **Autosampler Location: 34**
Sample ID: 580-27549-A-2-E MSD 1/100 **Date Collected: 7/27/2011 12:16:01 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:25 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27549-A-2-E MSD 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	504495.0	103.4	%	6.92				6.69%
Sc 361.383	1019625.6	103.6	%	6.81				6.57%
Al 308.215†	78716.4	3.957	mg/L	0.0250	3.957	mg/L	0.0250	0.63%
Fe 273.955†	94240.0	5.499	mg/L	0.2134	5.499	mg/L	0.2134	3.88%
Ca 315.887†	33079.2	0.4515	mg/L	0.01169	0.4515	mg/L	0.01169	2.59%

Mg 279.077†	26234.8	2.177	mg/L	0.0715	2.177	mg/L	0.0715	3.28%

Sequence No.: 39 **Autosampler Location: 35**
Sample ID: 580-27549-A-2-B pds 1/100 **Date Collected: 7/27/2011 12:21:43 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:26 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27549-A-2-B pds 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	492638.6	101.0	%	4.60				4.55%
Sc 361.383	996231.3	101.3	%	4.61				4.56%
Al 308.215†	64103.0	3.222	mg/L	0.0510	3.222	mg/L	0.0510	1.58%
Fe 273.955†	81354.2	4.747	mg/L	0.1656	4.747	mg/L	0.1656	3.49%
Ca 315.887†	31634.1	0.4317	mg/L	0.01047	0.4317	mg/L	0.01047	2.42%
Mg 279.077†	21510.2	1.785	mg/L	0.0589	1.785	mg/L	0.0589	3.30%

Sequence No.: 40 **Autosampler Location: 36**
Sample ID: 580-27549-A-1-E 1/100 **Date Collected: 7/27/2011 12:27:26 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:26 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27549-A-1-E 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	493418.4	101.2	%	1.68				1.66%
Sc 361.383	998029.0	101.4	%	1.75				1.72%
Al 308.215†	88815.6	4.465	mg/L	0.1601	4.465	mg/L	0.1601	3.59%
Fe 273.955†	127719.6	7.453	mg/L	0.2908	7.453	mg/L	0.2908	3.90%
Ca 315.887†	56842.8	0.7758	mg/L	0.02852	0.7758	mg/L	0.02852	3.68%
Mg 279.077†	41845.5	3.473	mg/L	0.1396	3.473	mg/L	0.1396	4.02%

Sequence No.: 41 **Autosampler Location: 37**
Sample ID: 580-27549-A-3-A 1/100 **Date Collected: 7/27/2011 12:33:10 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:26 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27549-A-3-A 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	506643.9	103.9	%	4.65				4.48%
Sc 361.383	1024368.1	104.1	%	4.59				4.41%
Al 308.215†	142558.0	7.166	mg/L	0.2074	7.166	mg/L	0.2074	2.89%
Fe 273.955†	198056.1	11.56	mg/L	0.490	11.56	mg/L	0.490	4.24%
Ca 315.887†	45314.8	0.6185	mg/L	0.02085	0.6185	mg/L	0.02085	3.37%
Mg 279.077†	72958.5	6.055	mg/L	0.2594	6.055	mg/L	0.2594	4.28%

Sequence No.: 42 **Autosampler Location: 38**
Sample ID: 580-27549-A-4-A 1/100 **Date Collected: 7/27/2011 12:38:53 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:26 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27549-A-4-A 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	490804.9	100.6	%	4.71				4.68%
Sc 361.383	993724.5	101.0	%	4.66				4.61%
Al 308.215†	146782.7	7.379	mg/L	0.3224	7.379	mg/L	0.3224	4.37%
Fe 273.955†	198726.5	11.60	mg/L	0.602	11.60	mg/L	0.602	5.19%
Ca 315.887†	56944.1	0.7772	mg/L	0.03417	0.7772	mg/L	0.03417	4.40%
Mg 279.077†	73458.4	6.096	mg/L	0.3105	6.096	mg/L	0.3105	5.09%

Sequence No.: 43 **Autosampler Location: 39**
Sample ID: 580-27549-A-5-A 1/100 **Date Collected: 7/27/2011 12:44:34 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 7/27/2011 1:57:27 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-27549-A-5-A 1/100

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	480268.7	98.45	%	0.675				0.69%
Sc 361.383	970353.6	98.63	%	0.739				0.75%
Al 308.215†	52403.9	2.634	mg/L	0.0097	2.634	mg/L	0.0097	0.37%
Fe 273.955†	58484.2	3.413	mg/L	0.0071	3.413	mg/L	0.0071	0.21%
Ca 315.887†	39861.2	0.5440	mg/L	0.00161	0.5440	mg/L	0.00161	0.30%
Mg 279.077†	27364.4	2.271	mg/L	0.0094	2.271	mg/L	0.0094	0.41%

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Sequence No.: 44 **Autosampler Location: 6**
Sample ID: CCV 00030 **Date Collected: 7/27/2011 12:50:16 PM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:27 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00030

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	494602.9	101.4	%	1.34				1.32%
Sc 361.383	996908.2	101.3	%	1.30				1.28%
Al 308.215†	193929.6	9.749	mg/L	0.2455	9.749	mg/L	0.2455	2.52%
QC value within limits for Al 308.215 Recovery = 97.49%								
Fe 273.955†	176851.2	10.32	mg/L	0.277	10.32	mg/L	0.277	2.68%
QC value within limits for Fe 273.955 Recovery = 103.20%								
Ca 315.887†	1489197.5	20.32	mg/L	0.552	20.32	mg/L	0.552	2.72%
QC value within limits for Ca 315.887 Recovery = 101.62%								
Mg 279.077†	241726.4	20.06	mg/L	0.546	20.06	mg/L	0.546	2.72%
QC value within limits for Mg 279.077 Recovery = 100.30%								

All analyte(s) passed QC.

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Sequence No.: 45 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 7/27/2011 12:56:00 PM**
Analyst: **Data Type: Reprocessed on 7/27/2011 1:57:28 PM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	475940.5	97.57	%	5.268				5.40%
Sc 361.383	962179.8	97.80	%	5.203				5.32%
Al 308.215†	-1904.3	-0.0957	mg/L	0.10212	-0.0957	mg/L	0.10212	106.68%
QC value within limits for Al 308.215 Recovery = Not calculated								
Fe 273.955†	44.3	0.0026	mg/L	0.00032	0.0026	mg/L	0.00032	12.33%
QC value within limits for Fe 273.955 Recovery = Not calculated								
Ca 315.887†	-824.6	-0.0113	mg/L	0.00752	-0.0113	mg/L	0.00752	66.82%
QC value within limits for Ca 315.887 Recovery = Not calculated								
Mg 279.077†	-8.3	-0.0007	mg/L	0.00649	-0.0007	mg/L	0.00649	942.51%
QC value within limits for Mg 279.077 Recovery = Not calculated								

All analyte(s) passed QC.

Sample Name: Blank Acquired: 7/26/2011 14:17:05 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0281**	**.0001**	**.0000**	**.0157**	**.0004**	**.00046**	**.0056**	**.0003**
Stddev	.0131	.0000	.0000	.0004	.0001	.00091	.0003	.0000
%RSD	46.83	42.18	85.98	2.788	12.05	197.14	5.880	12.87
#1	-.0235	.0001	.0001	.0161	.0005	.00133	.0054	.0003
#2	-.0178	.0001	.0000	.0152	.0004	-.00048	.0054	.0003
#3	-.0429	.0001	.0000	.0156	.0004	.00054	.0059	.0003

Elem	Co2286	Cr2055	Cu3273	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0026**	**.0002**	**-.0020**	**.0205**	**.0029**	**.0018**	**.0001**	**.0227**
Stddev	.0002	.0000	.0002	.0023	.0001	.0002	.0000	.0013
%RSD	8.829	23.90	8.161	11.35	4.139	11.89	17.91	5.656
#1	.0026	.0002	-.0021	.0222	.0031	.0020	.0001	.0218
#2	.0029	.0001	-.0018	.0214	.0029	.0017	.0001	.0221
#3	.0024	.0002	-.0020	.0178	.0028	.0016	.0001	.0242

Elem	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0037**	**.0001**	**.0026**	**.0000**	**.0001**	**.0024**	**.0001**	**.0001**
Stddev	.0003	.0000	.0005	.0000	.0000	.0042	.0000	.0000
%RSD	7.398	15.74	20.16	262.6	19.21	172.6	19.07	33.89
#1	.0036	.0001	.0022	.0000	.0001	-.0016	.0001	.0001
#2	.0034	.0001	.0032	.0000	.0001	.0021	.0001	.0000
#3	.0040	.0001	.0025	.0001	.0001	.0068	.0001	.0001

Elem	Ti3372	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0014**	**.0000**	**.0000**	**.0007**
Stddev	.0001	.0001	.000	.0000
%RSD	9.470	442.6	651.4	3.597
#1	.0015	.0000	.0002	.0007
#2	.0015	-.0001	.0000	.0007
#3	.0013	.0002	-.0003	.0007

Sample Name: Blank Acquired: 7/26/2011 14:17:05 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2253.4**	**20802.**	**303.11**	**832.14**
Stddev	6.1	32.	2.71	6.39
%RSD	.26956	.15601	.89457	.76802
#1	2254.8	20802.	302.25	828.27
#2	2246.7	20770.	300.93	828.64
#3	2258.6	20835.	306.15	839.52

Sample Name: 580-27549-A-2-B Acquired: 7/26/2011 17:58:35 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0040**	**407.8**	**.1268**	**.0300**	**.8008**	**.00493**
Stddev	.0001	2.1	.0003	.0002	.0020	.00055
%RSD	3.622	.5269	.2589	.5654	.2533	11.147
#1	.0039	409.9	.1265	.0302	.7986	.00439
#2	.0040	408.0	.1272	.0301	.8012	.00549
#3	.0042	405.6	.1268	.0299	.8026	.00492

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**27.20**	**.0002**	**.2889**	**1.015**	**.9694**	**9.518**
Stddev	.21	.0004	.0004	.002	.0004	.120
%RSD	.7656	169.7	.1257	.2397	.0429	1.264
#1	27.45	-.0002	.2886	1.013	.9698	9.420
#2	27.09	.0005	.2893	1.015	.9690	9.652
#3	27.08	.0005	.2887	1.018	.9694	9.482

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**178.9**	**13.26**	**.0065**	**.1986**	**1.563**	**12.70**
Stddev	.4	.07	.0001	.0411	.003	.04
%RSD	.2222	.5212	1.951	20.68	.1656	.3505
#1	178.5	13.19	.0066	.2306	1.560	12.65
#2	179.2	13.33	.0064	.2128	1.564	12.74
#3	179.1	13.25	.0063	.1523	1.565	12.72

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.1381**	**.0092**	**.0465**	**20.97**	**.0385**	**.1094**
Stddev	.0001	.0014	.0015	.22	.0018	.0007
%RSD	.0735	14.76	3.259	1.051	4.648	.6693
#1	.1381	.0099	.0452	21.22	.0372	.1102
#2	.1382	.0101	.0482	20.81	.0406	.1088
#3	.1380	.0077	.0462	20.87	.0378	.1091

Sample Name: 580-27549-A-2-B Acquired: 7/26/2011 17:58:35 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**13.62**	**-.0077**	**1.034**	**.9165**
Stddev	.03	.0054	.002	.0024
%RSD	.1936	70.12	.1442	.2629
#1	13.60	-.0121	1.033	.9139
#2	13.65	-.0017	1.035	.9187
#3	13.61	-.0094	1.036	.9167

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1842.8**	**21018.**	**344.49**	**932.35**
Stddev	.7	35.	2.37	5.12
%RSD	.03676	.16677	.68904	.54935
#1	1842.5	21053.	342.40	929.57
#2	1842.4	20983.	344.00	929.23
#3	1843.6	21019.	347.08	938.27

Sample Name: 580-27549-A-3-A Acquired: 7/26/2011 18:55:34 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0053**	**740.6**	**.2149**	**.0469**	**1.475**	**.01006**
Stddev	.0003	5.8	.0018	.0014	.004	.00084
%RSD	6.579	.7893	.8344	3.038	.2344	8.3928
#1	.0053	733.9	.2129	.0485	1.473	.00949
#2	.0056	744.5	.2163	.0457	1.473	.00966
#3	.0049	743.4	.2155	.0465	1.479	.01103

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**53.50**	**-.0066**	**.7891**	**2.810**	**1.860**	**16.28**
Stddev	.13	.0003	.0016	.007	.001	.18
%RSD	.2389	5.032	.2034	.2529	.0402	1.097
#1	53.57	-.0063	.7878	2.818	1.859	16.45
#2	53.35	-.0066	.7909	2.808	1.859	16.09
#3	53.58	-.0069	.7886	2.804	1.860	16.30

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**536.1**	**17.35**	**.0072**	**-.4052**	**6.203**	**16.73**
Stddev	.9	.03	.0006	.0201	.013	.02
%RSD	.1623	.1988	8.531	4.956	.2095	.1377
#1	535.2	17.36	.0075	-.3952	6.193	16.71
#2	536.1	17.37	.0065	-.3921	6.218	16.75
#3	537.0	17.31	.0075	-.4283	6.197	16.75

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.1933**	**.0135**	**.1146**	**26.27**	**.0360**	**.2732**
Stddev	.0035	.0035	.0007	.10	.0017	.0013
%RSD	1.810	26.09	.6418	.3777	4.635	.4793
#1	.1968	.0128	.1137	26.21	.0352	.2744
#2	.1898	.0104	.1148	26.22	.0379	.2718
#3	.1934	.0173	.1151	26.39	.0349	.2733

Sample Name: 580-27549-A-3-A Acquired: 7/26/2011 18:55:34 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**21.30**	**-.0111**	**1.854**	**1.674**
Stddev	.09	.0015	.004	.001
%RSD	.4060	13.77	.1911	.0537
#1	21.30	-.0122	1.854	1.676
#2	21.21	-.0093	1.851	1.674
#3	21.38	-.0117	1.858	1.674
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1602.3**	**21172.**	**350.69**	**964.02**
Stddev	1.5	39.	2.90	9.37
%RSD	.09669	.18592	.82704	.97217
#1	1602.9	21165.	347.44	956.54
#2	1603.5	21215.	353.00	974.53
#3	1600.5	21137.	351.63	960.99

Sample Name: 580-27370-E-1-A Acquired: 7/26/2011 20:04:39 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0009**	**-.0090**	**-.0003**	**.0689**	**.0464**	**.00009**
Stddev	.0000	.1966	.0023	.0006	.0001	.00096
%RSD	4.147	2189.	908.7	.8801	.3065	1076.0
#1	-.0009	.1104	-.0029	.0696	.0463	-.00074
#2	-.0009	-.2359	.0008	.0686	.0463	.00114
#3	-.0009	.0986	.0013	.0684	.0465	-.00014

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**40.21**	**-.0005**	**-.0001**	**-.0003**	**.0006**	**2.546**
Stddev	.24	.0001	.0002	.0001	.0005	.143
%RSD	.6003	15.61	142.0	50.78	95.75	5.604
#1	39.94	-.0005	-.0001	-.0002	.0001	2.386
#2	40.38	-.0004	-.0003	-.0002	.0005	2.660
#3	40.32	-.0005	.0000	-.0004	.0011	2.593

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**8.391**	**.0010**	**.0040**	**28.92**	**.0011**	**.1365**
Stddev	.012	.0001	.0003	.13	.0001	.0004
%RSD	.1449	5.894	6.668	.4494	11.19	.2611
#1	8.384	.0011	.0042	28.85	.0011	.1367
#2	8.384	.0010	.0040	29.07	.0010	.1361
#3	8.405	.0009	.0037	28.83	.0013	.1368

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**-.0004**	**-.0022**	**-.0020**	**17.72**	**-.0009**	**.3580**
Stddev	.0011	.0020	.0027	.22	.0005	.0010
%RSD	265.4	90.74	133.7	1.248	57.50	.2925
#1	-.0017	-.0007	.0010	17.71	-.0006	.3592
#2	.0000	-.0015	-.0029	17.94	-.0015	.3573
#3	.0004	-.0046	-.0042	17.50	-.0006	.3575

Sample Name: 580-27370-E-1-A Acquired: 7/26/2011 20:04:39 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0001**	**.0010**	**.0044**	**.0035**
Stddev	.0000	.0007	.0001	.0001
%RSD	55.68	66.13	2.759	1.812
#1	.0001	.0011	.0046	.0034
#2	.0000	.0003	.0044	.0035
#3	.0001	.0017	.0044	.0036
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2194.2**	**21369.**	**328.03**	**897.70**
Stddev	3.8	29.	2.34	3.36
%RSD	.17263	.13687	.71234	.37468
#1	2197.4	21382.	327.40	898.95
#2	2195.2	21390.	326.08	893.90
#3	2190.0	21336.	330.62	900.27

Sample Name: CCB Acquired: 7/26/2011 21:08:19 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0011**	**-.0822**	**-.0014**	**-.0011**	**-.0006**	**-.00203**
Stddev	.0002	.1545	.0009	.0003	.0000	.00115
%RSD	14.13	187.8	63.20	24.03	4.760	56.549
#1	-.0012	.0921	-.0022	-.0010	-.0005	-.00241
#2	-.0009	-.2022	-.0005	-.0013	-.0006	-.00293
#3	-.0011	-.1366	-.0014	-.0008	-.0005	-.00074
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**-.1189**	**-.0004**	**-.0004**	**-.0009**	**.0003**	**-.1327**
Stddev	.0575	.0001	.0002	.0002	.0001	.1377
%RSD	48.39	32.22	54.89	28.79	22.80	103.8
#1	-.1775	-.0003	-.0003	-.0011	.0003	.0258
#2	-.1167	-.0004	-.0006	-.0008	.0004	-.2007
#3	-.0625	-.0005	-.0002	-.0007	.0004	-.2231
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 21:08:19 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0710**	**.0000**	**-.0004**	**-.0100**	**-.0009**	**-.0021**
Stddev	.0011	.000	.0003	.0488	.0005	.0014
%RSD	1.545	93.72	78.52	489.2	59.13	66.79
#1	-.0699	.0000	-.0006	.0462	-.0003	-.0009
#2	-.0721	-.0001	-.0001	-.0418	-.0013	-.0036
#3	-.0710	.0000	-.0004	-.0343	-.0010	-.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**-.0022**	**-.0010**	**-.0018**	**.0115**	**-.0015**	**-.0010**
Stddev	.0010	.0011	.0008	.1476	.0008	.0005
%RSD	43.77	103.8	45.96	1288.	55.57	49.91
#1	-.0011	-.0005	-.0027	-.1445	-.0006	-.0010
#2	-.0029	-.0023	-.0015	.1490	-.0017	-.0015
#3	-.0027	-.0003	-.0012	.0299	-.0022	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 21:08:19 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	-.0007	-.0001	-.0003	.0007
Stddev	.0001	.0010	.0002	.0001
%RSD	8.788	818.3	71.31	18.29
#1	-.0007	-.0008	-.0003	.0007
#2	-.0008	.0010	-.0001	.0008
#3	-.0007	-.0006	-.0005	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2345.7	21517.	320.07	885.89
Stddev	12.7	90.	1.31	10.34
%RSD	.54189	.42002	.40815	1.1669
#1	2332.2	21415.	320.33	874.16
#2	2347.3	21547.	321.23	889.82
#3	2357.5	21588.	318.66	893.69

Sample Name: CalibStd1 00019 Acquired: 7/26/2011 14:23:33 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.102**	**.0003**	**.0074**	**.3212**	**.0505**	**.00717**	**.0695**	**.0204**
Stddev	.011	.0001	.0000	.0041	.0000	.00204	.0041	.0001
%RSD	.3663	14.99	.3229	1.276	.0821	28.427	5.879	.3354
#1	3.114	.0004	.0075	.3187	.0505	.00612	.0653	.0204
#2	3.091	.0004	.0074	.3260	.0506	.00952	.0698	.0204
#3	3.100	.0003	.0074	.3190	.0505	.00587	.0734	.0203

Elem	Co2286	Cr2055	Cu3273	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1434**	**.0059**	**.0147**	**.0858**	**.0595**	**.1285**	**.0047**	**.1304**
Stddev	.0002	.0001	.0001	.0072	.0003	.0006	.0000	.0054
%RSD	.1658	1.712	.9571	8.361	.4624	.4299	.9624	4.138
#1	.1436	.0057	.0148	.0788	.0592	.1279	.0048	.1258
#2	.1433	.0059	.0148	.0854	.0597	.1290	.0047	.1364
#3	.1432	.0059	.0145	.0932	.0596	.1286	.0047	.1291

Elem	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0461**	**.0113**	**.1903**	**.0044**	**.0057**	**.0086**	**.0071**	**.0359**
Stddev	.0002	.0001	.0005	.0001	.0000	.0027	.0001	.0003
%RSD	.4654	.4684	.2629	1.240	.6900	31.67	.9235	.8574
#1	.0459	.0112	.1899	.0044	.0056	.0080	.0070	.0357
#2	.0461	.0113	.1909	.0044	.0057	.0062	.0071	.0357
#3	.0463	.0113	.1902	.0045	.0056	.0116	.0071	.0362

Elem	Ti3372	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0831**	**.0251**	**.0323**	**.0186**
Stddev	.0004	.0001	.0003	.0001
%RSD	.4302	.4341	.8172	.4185
#1	.0832	.0250	.0321	.0185
#2	.0833	.0251	.0326	.0186
#3	.0827	.0252	.0323	.0187

Sample Name: CalibStd1 00019 Acquired: 7/26/2011 14:23:33 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2199.3**	**20684.**	**309.20**	**843.68**
Stddev	3.2	33.	.93	12.02
%RSD	.14610	.15970	.30208	1.4241
#1	2202.4	20716.	308.51	849.95
#2	2196.0	20650.	308.83	829.83
#3	2199.6	20685.	310.26	851.26

Sample Name: CalibStd-2 00020 Acquired: 7/26/2011 14:30:03 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**15.30**	**.0015**	**.0368**	**1.586**	**.2485**	**.03663**	**.3424**	**.0992**
Stddev	.13	.0000	.0001	.029	.0004	.00098	.0081	.0003
%RSD	.8406	3.065	.3794	1.802	.1640	2.6635	2.366	.2890
#1	15.15	.0014	.0366	1.582	.2480	.03769	.3338	.0989
#2	15.37	.0015	.0368	1.559	.2487	.03577	.3498	.0994
#3	15.38	.0015	.0369	1.616	.2488	.03643	.3436	.0993

Elem	Co2286	Cr2055	Cu3273	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7116**	**.0283**	**.0775**	**.3589**	**.2912**	**.6103**	**.0228**	**.5775**
Stddev	.0024	.0001	.0003	.0077	.0021	.0038	.0000	.0059
%RSD	.3345	.5060	.3976	2.152	.7106	.6279	.1067	1.014
#1	.7088	.0281	.0775	.3504	.2923	.6119	.0228	.5736
#2	.7129	.0283	.0778	.3655	.2925	.6131	.0228	.5746
#3	.7130	.0284	.0772	.3609	.2888	.6059	.0228	.5842

Elem	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2150**	**.0574**	**.9532**	**.0218**	**.0280**	**.0469**	**.0342**	**.1762**
Stddev	.0010	.0002	.0027	.0001	.0002	.0017	.0001	.0023
%RSD	.4568	.3000	.2810	.3695	.5471	3.561	.2498	1.279
#1	.2139	.0572	.9501	.0218	.0281	.0456	.0341	.1760
#2	.2155	.0575	.9548	.0218	.0279	.0462	.0342	.1786
#3	.2156	.0574	.9547	.0219	.0282	.0487	.0343	.1741

Elem	Ti3372	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4033**	**.1230**	**.1576**	**.0808**
Stddev	.0033	.0005	.0011	.0003
%RSD	.8069	.3836	.6843	.3480
#1	.4051	.1226	.1583	.0805
#2	.4051	.1229	.1581	.0811
#3	.3995	.1235	.1563	.0808

Sample Name: CalibStd-2 00020 Acquired: 7/26/2011 14:30:03 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2171.7**	**20978.**	**311.31**	**860.02**
Stddev	13.0	143.	2.87	9.60
%RSD	.59809	.68204	.92302	1.1168
#1	2167.4	20909.	314.62	856.95
#2	2161.5	20882.	309.49	870.79
#3	2186.3	21142.	309.82	852.34

Sample Name: CalibStd-3 00019 Acquired: 7/26/2011 14:36:18 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**74.79**	**.0072**	**.1851**	**7.545**	**1.207**	**.18127**	**1.689**	**.4926**
Stddev	2.25	.0001	.0003	.166	.001	.00397	.056	.0007
%RSD	3.010	.8044	.1485	2.196	.0910	2.1922	3.337	.1517
#1	77.19	.0072	.1854	7.736	1.207	.18545	1.750	.4925
#2	72.73	.0071	.1851	7.452	1.207	.17755	1.640	.4920
#3	74.44	.0072	.1849	7.447	1.209	.18079	1.677	.4934

Elem	Co2286	Cr2055	Cu3273	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.694**	**.1409**	**.4016**	**1.729**	**1.431**	**3.060**	**.1150**	**2.780**
Stddev	.010	.0010	.0025	.027	.006	.014	.0005	.046
%RSD	.2791	.7133	.6204	1.564	.4425	.4667	.4053	1.651
#1	3.690	.1419	.3992	1.760	1.425	3.045	.1145	2.832
#2	3.686	.1409	.4015	1.712	1.432	3.060	.1150	2.745
#3	3.706	.1399	.4042	1.715	1.437	3.074	.1154	2.763

Elem	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.103**	**.2848**	**4.845**	**.1112**	**.1409**	**.2387**	**.1693**	**.9064**
Stddev	.002	.0006	.009	.0001	.0002	.0097	.0005	.0053
%RSD	.1603	.2166	.1923	.1134	.1501	4.044	.3109	.5888
#1	1.105	.2844	4.854	.1113	.1408	.2498	.1699	.9006
#2	1.101	.2845	4.836	.1111	.1407	.2331	.1693	.9110
#3	1.103	.2855	4.847	.1111	.1411	.2331	.1688	.9076

Elem	Ti3372	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.054**	**.6351**	**.8000**	**.4006**
Stddev	.015	.0018	.0052	.0010
%RSD	.7296	.2908	.6531	.2564
#1	2.040	.6331	.7948	.4000
#2	2.052	.6355	.8000	.4000
#3	2.069	.6368	.8052	.4018

Sample Name: CalibStd-3 00019 Acquired: 7/26/2011 14:36:18 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2047.4**	**20905.**	**322.76**	**882.72**
Stddev	5.0	89.	9.64	14.68
%RSD	.24513	.42728	2.9863	1.6628
#1	2051.5	20998.	312.44	865.89
#2	2048.9	20897.	331.53	892.84
#3	2041.8	20819.	324.29	889.44

Sample Name: CalibStd-4 00019 Acquired: 7/26/2011 14:42:26 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**155.8**	**.0154**	**.3993**	**15.50**	**2.528**	**.37541**	**3.566**	**1.053**
Stddev	2.0	.0001	.0010	.17	.004	.00417	.041	.002
%RSD	1.256	.6283	.2460	1.100	.1505	1.1108	1.145	.2221
#1	158.0	.0153	.3988	15.62	2.526	.38022	3.612	1.051
#2	154.3	.0155	.3986	15.30	2.525	.37334	3.555	1.052
#3	155.1	.0153	.4004	15.56	2.532	.37269	3.532	1.056

Elem	Co2286	Cr2055	Cu3273	K_7664	Mg2790	Mn2576	Mo2020	Na5895
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8.134**	**.2960**	**.8441**	**3.687**	**3.050**	**6.359**	**.2472**	**5.845**
Stddev	.031	.0013	.0025	.037	.011	.022	.0007	.059
%RSD	.3790	.4512	.2982	1.010	.3670	.3543	.2831	1.006
#1	8.115	.2968	.8417	3.725	3.040	6.339	.2466	5.913
#2	8.117	.2945	.8439	3.650	3.047	6.355	.2471	5.814
#3	8.170	.2968	.8467	3.685	3.062	6.383	.2480	5.808

Elem	Ni2316	P_1782	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.424**	**.6205**	**10.72**	**.2417**	**.3074**	**.5085**	**.3540**	**1.894**
Stddev	.012	.0019	.05	.0005	.0008	.0019	.0006	.008
%RSD	.5065	.3105	.4691	.1938	.2578	.3724	.1592	.4198
#1	2.418	.6187	10.69	.2415	.3067	.5064	.3540	1.896
#2	2.416	.6202	10.69	.2414	.3073	.5100	.3534	1.900
#3	2.438	.6225	10.78	.2422	.3082	.5091	.3545	1.885

Elem	Ti3372	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**4.374**	**1.390**	**1.696**	**.8651**
Stddev	.016	.005	.006	.0014
%RSD	.3566	.3666	.3737	.1607
#1	4.362	1.388	1.691	.8646
#2	4.368	1.387	1.694	.8641
#3	4.391	1.396	1.703	.8667

Sample Name: CalibStd-4 00019 Acquired: 7/26/2011 14:42:26 Type: Cal
Method: 6010-2007July2011 (v7) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1952.0**	**20681.**	**320.27**	**887.34**
Stddev	2.2	27.	4.48	7.72
%RSD	.11195	.13037	1.3987	.87006
#1	1953.8	20695.	315.10	880.45
#2	1952.7	20650.	322.84	895.69
#3	1949.6	20698.	322.87	885.87

Sample Name: ICV 200.7 00014 Acquired: 7/26/2011 14:48:36 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5138**	**4.876**	**2.494**	**10.22**	**.2570**	**.25612**
Stddev	.0012	.184	.008	.06	.0005	.00287
%RSD	.2289	3.780	.3333	.5751	.2050	1.1221
#1	.5125	4.772	2.502	10.21	.2566	.25281
#2	.5144	4.768	2.494	10.28	.2576	.25764
#3	.5146	5.089	2.486	10.16	.2569	.25792
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**5.133**	**.2556**	**.4838**	**1.001**	**1.026**	**15.27**
Stddev	.003	.0000	.0007	.003	.000	.25
%RSD	.0582	.0176	.1446	.3394	.0296	1.644
#1	5.137	.2556	.4832	1.003	1.026	15.06
#2	5.132	.2556	.4846	1.003	1.026	15.55
#3	5.132	.2556	.4837	.9970	1.026	15.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICV 200.7 00014 Acquired: 7/26/2011 14:48:36 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**5.138**	**1.046**	**.5080**	**10.30**	**.9725**	**14.84**
Stddev	.015	.002	.0006	.03	.0023	.01
%RSD	.2902	.1450	.1195	.2593	.2372	.0570
#1	5.130	1.045	.5073	10.27	.9703	14.84
#2	5.129	1.045	.5085	10.32	.9749	14.83
#3	5.155	1.047	.5082	10.30	.9722	14.84
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.9648**	**2.461**	**4.983**	**2.468**	**2.525**	**5.179**
Stddev	.0009	.002	.011	.112	.001	.026
%RSD	.0946	.0820	.2237	4.527	.0237	.5039
#1	.9642	2.463	4.977	2.538	2.524	5.150
#2	.9659	2.460	4.976	2.526	2.525	5.188
#3	.9644	2.460	4.996	2.339	2.524	5.199
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICV 200.7 00014 Acquired: 7/26/2011 14:48:36 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.5063**	**4.934**	**.5132**	**.7487**
Stddev	.0017	.009	.0005	.0001
%RSD	.3375	.1823	.1047	.0100
#1	.5046	4.928	.5127	.7486
#2	.5061	4.930	.5130	.7488
#3	.5080	4.945	.5138	.7486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2226.8**	**21507.**	**323.73**	**893.64**
Stddev	2.2	19.	1.01	4.05
%RSD	.09923	.08727	.31286	.45305
#1	2229.4	21520.	324.90	895.51
#2	2225.6	21515.	323.15	889.00
#3	2225.5	21485.	323.13	896.42

Sample Name: ICB_CCB Acquired: 7/26/2011 14:57:16 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0005**	**-.2608**	**.0017**	**.0117**	**.0016**	**-.00115**
Stddev	.0002	.1582	.0023	.0008	.0002	.00182
%RSD	28.05	60.68	141.0	6.980	9.534	158.99
#1	.0005	-.3806	.0002	.0122	.0018	-.00080
#2	.0004	-.0814	.0004	.0121	.0015	-.00312
#3	.0007	-.3203	.0043	.0107	.0016	.00048
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**-.0837**	**.0003**	**.0003**	**-.0001**	**.0005**	**.0090**
Stddev	.0347	.0001	.0001	.0003	.0004	.1045
%RSD	41.41	18.27	41.81	387.3	84.60	1166.
#1	-.1200	.0003	.0003	.0002	.0000	-.1113
#2	-.0509	.0002	.0004	-.0001	.0007	.0601
#3	-.0801	.0003	.0002	-.0004	.0008	.0781
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 7/26/2011 14:57:16 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0466**	**.0005**	**.0003**	**-.0105**	**.0002**	**.0112**
Stddev	.0015	.0001	.0004	.0040	.0008	.0012
%RSD	3.140	11.30	152.4	38.00	320.4	10.48
#1	-.0456	.0006	.0004	-.0065	.0010	.0123
#2	-.0458	.0006	.0007	-.0145	.0003	.0115
#3	-.0482	.0005	-.0002	-.0106	-.0006	.0100
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.0030**	**.0021**	**.0026**	**-.2370**	**.0024**	**.0068**
Stddev	.0005	.0037	.0021	.1067	.0009	.0014
%RSD	18.20	178.6	79.77	45.02	39.05	20.54
#1	.0034	-.0019	.0047	-.3602	.0026	.0083
#2	.0024	.0054	.0027	-.1742	.0031	.0055
#3	.0032	.0028	.0005	-.1767	.0013	.0067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 7/26/2011 14:57:16 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	-.0003	.0022	.0004	.0006
Stddev	.0001	.0028	.0001	.0001
%RSD	29.20	125.6	24.02	24.00
#1	-.0003	.0034	.0004	.0004
#2	-.0003	.0041	.0003	.0006
#3	-.0005	-.0010	.0005	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2310.1	21183.	321.91	886.72
Stddev	10.5	73.	2.56	1.39
%RSD	.45433	.34564	.79430	.15692
#1	2299.6	21108.	322.59	885.15
#2	2310.1	21188.	319.08	887.82
#3	2320.6	21254.	324.05	887.19

Sample Name: CRI 00019 Acquired: 7/26/2011 15:03:51 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0222**	**1.057**	**.0644**	**2.488**	**.0113**	**.00540**
Stddev	.0002	.156	.0005	.025	.0001	.00193
%RSD	.9344	14.76	.7295	1.017	1.059	35.726
#1	.0220	1.153	.0649	2.482	.0113	.00451
#2	.0224	.8770	.0639	2.516	.0112	.00761
#3	.0222	1.142	.0645	2.467	.0114	.00408
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**.9954**	**.0102**	**.0094**	**.0260**	**.0218**	**2.947**
Stddev	.0437	.0001	.0001	.0005	.0002	.046
%RSD	4.388	1.256	.6892	1.830	.9089	1.555
#1	1.045	.0104	.0095	.0264	.0217	2.896
#2	.9800	.0102	.0094	.0255	.0220	2.983
#3	.9615	.0101	.0095	.0261	.0216	2.963
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 00019 Acquired: 7/26/2011 15:03:51 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**1.072**	**.0219**	**.0197**	**1.994**	**.0195**	**.3037**
Stddev	.005	.0000	.0001	.007	.0007	.0041
%RSD	.4357	.0771	.7027	.3509	3.524	1.359
#1	1.076	.0220	.0197	2.001	.0200	.3083
#2	1.074	.0219	.0199	1.992	.0199	.3025
#3	1.067	.0219	.0196	1.988	.0188	.3003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.0294**	**.0612**	**.0998**	**.6377**	**.1034**	**.1070**
Stddev	.0011	.0014	.0020	.1940	.0009	.0008
%RSD	3.667	2.241	1.988	30.43	.8751	.7293
#1	.0291	.0626	.0990	.7741	.1044	.1062
#2	.0285	.0610	.1020	.4156	.1027	.1072
#3	.0306	.0599	.0983	.7235	.1031	.1077
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 00019 Acquired: 7/26/2011 15:03:51 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0098**	**.0978**	**.0209**	**.0421**
Stddev	.0000	.0010	.0002	.0002
%RSD	.1201	.9819	.8601	.5047
#1	.0098	.0972	.0207	.0423
#2	.0098	.0989	.0210	.0422
#3	.0098	.0974	.0209	.0419
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2337.3**	**22033.**	**329.48**	**904.26**
Stddev	2.5	62.	3.55	9.21
%RSD	.10907	.27924	1.0781	1.0180
#1	2334.4	21963.	331.85	907.50
#2	2338.7	22055.	325.40	893.87
#3	2338.9	22080.	331.20	911.41

Sample Name: HIGH STD 00019 Acquired: 7/26/2011 15:12:51 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**4.060**	**41.71**	**20.41**	**9.604**	**10.07**	**.41408**
Stddev	.101	.84	.07	.192	.02	.01428
%RSD	2.475	2.015	.3629	1.995	.1884	3.4477
#1	4.077	41.10	20.48	9.703	10.09	.40796
#2	3.952	41.36	20.42	9.383	10.08	.40387
#3	4.151	42.67	20.33	9.726	10.05	.43039
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**82.10**	**2.013**	**2.065**	**2.068**	**2.082**	**82.35**
Stddev	2.57	.003	.006	.013	.007	2.39
%RSD	3.130	.1668	.2872	.6362	.3464	2.898
#1	81.37	2.016	2.071	2.076	2.078	81.85
#2	79.97	2.014	2.066	2.075	2.078	80.25
#3	84.95	2.010	2.059	2.053	2.090	84.94
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: HIGH STD 00019 Acquired: 7/26/2011 15:12:51 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**82.41**	**2.058**	**2.012**	**61.79**	**2.064**	**40.48**
Stddev	.15	.007	.001	1.78	.008	.05
%RSD	.1771	.3425	.0371	2.876	.3773	.1340
#1	82.29	2.055	2.013	61.13	2.071	40.50
#2	82.37	2.054	2.012	60.44	2.064	40.52
#3	82.57	2.067	2.012	63.81	2.056	40.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**20.65**	**10.22**	**20.31**	**41.57**	**10.21**	**20.84**
Stddev	.06	.01	.04	1.51	.06	.38
%RSD	.2746	.1323	.1722	3.633	.5477	1.801
#1	20.70	10.23	20.33	40.61	10.26	20.46
#2	20.66	10.23	20.32	40.80	10.22	20.84
#3	20.59	10.21	20.27	43.31	10.15	21.21
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: HIGH STD 00019 Acquired: 7/26/2011 15:12:51 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**2.068**	**10.14**	**2.067**	**2.035**
Stddev	.004	.00	.005	.003
%RSD	.2159	.0430	.2425	.1461
#1	2.065	10.14	2.065	2.037
#2	2.065	10.15	2.063	2.037
#3	2.073	10.15	2.072	2.032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1961.5**	**21000.**	**331.94**	**908.72**
Stddev	2.9	68.	7.40	20.24
%RSD	.14825	.32457	2.2304	2.2269
#1	1962.7	21059.	330.29	904.18
#2	1963.6	21017.	340.03	930.84
#3	1958.2	20925.	325.50	891.13

Sample Name: ICSA 00035 Acquired: 7/26/2011 15:21:27 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0004**	**527.5**	**.0000**	**.0034**	**.0027**	**.00046**
Stddev	.0002	1.9	.003	.0009	.0002	.00021
%RSD	44.34	.3530	9286.	26.12	6.334	47.164
#1	.0002	527.0	.0010	.0027	.0029	.00037
#2	.0004	525.9	.0024	.0044	.0026	.00030
#3	.0006	529.6	-.0035	.0030	.0028	.00070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**470.5**	**-.0007**	**.0005**	**.0008**	**.0119**	**.3485**
Stddev	4.7	.0001	.0001	.0008	.0004	.1714
%RSD	1.000	18.63	24.70	100.5	3.367	49.18
#1	473.5	-.0007	.0006	.0007	.0121	.1589
#2	473.0	-.0009	.0006	.0000	.0122	.3941
#3	465.1	-.0006	.0004	.0016	.0114	.4924
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA 00035 Acquired: 7/26/2011 15:21:27 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**484.6**	**.0128**	**-.0007**	**-.3859**	**.0035**	**.0391**
Stddev	.9	.0000	.0003	.0303	.0011	.0026
%RSD	.1779	.0783	48.71	7.846	31.89	6.697
#1	485.5	.0128	-.0006	-.4040	.0037	.0363
#2	484.5	.0128	-.0011	-.3509	.0023	.0396
#3	483.8	.0128	-.0004	-.4026	.0044	.0415
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.0023**	**.0054**	**.0147**	**-.1239**	**.0016**	**.0530**
Stddev	.0010	.0025	.0065	.1088	.0015	.0006
%RSD	42.66	45.93	44.18	87.84	97.18	1.084
#1	.0013	.0032	.0098	-.0557	.0026	.0528
#2	.0024	.0050	.0221	-.2494	-.0002	.0526
#3	.0032	.0081	.0122	-.0666	.0024	.0537
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA 00035 Acquired: 7/26/2011 15:21:27 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0015**	**.0017**	**.0034**	**.0135**
Stddev	.0000	.0019	.0002	.0002
%RSD	2.230	112.5	6.035	1.135
#1	.0015	.0011	.0031	.0134
#2	.0015	.0001	.0034	.0136
#3	.0015	.0038	.0036	.0136
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1777.2**	**19893.**	**323.67**	**888.48**
Stddev	6.1	26.	3.24	15.46
%RSD	.34159	.13176	1.0013	1.7395
#1	1772.4	19899.	321.35	873.75
#2	1784.1	19916.	322.29	887.14
#3	1775.2	19864.	327.38	904.57

Sample Name: ICSAB 00027 Acquired: 7/26/2011 15:30:37 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**3.098**	**521.2**	**10.15**	**4.740**	**2.867**	**1.0195**
Stddev	.009	2.8	.02	.039	.005	.0158
%RSD	.3041	.5332	.2148	.8251	.1722	1.5539
#1	3.091	520.8	10.17	4.745	2.872	1.0157
#2	3.095	518.7	10.13	4.699	2.863	1.0060
#3	3.109	524.2	10.13	4.777	2.865	1.0369
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**472.6**	**2.755**	**3.061**	**2.925**	**3.146**	**208.5**
Stddev	2.9	.003	.010	.020	.005	3.1
%RSD	.6226	.0971	.3130	.6683	.1728	1.499
#1	470.9	2.757	3.071	2.943	3.148	208.3
#2	471.0	2.752	3.052	2.929	3.139	205.5
#3	476.0	2.757	3.062	2.904	3.149	211.7
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB 00027 Acquired: 7/26/2011 15:30:37 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**473.7**	**1.926**	**2.751**	**-.3697**	**3.035**	**.0308**
Stddev	1.8	.002	.006	.0221	.010	.0036
%RSD	.3876	.0821	.2341	5.988	.3254	11.59
#1	474.7	1.927	2.748	-.3618	3.046	.0321
#2	474.9	1.925	2.746	-.3527	3.028	.0335
#3	471.6	1.927	2.758	-.3948	3.031	.0268
Check ?	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass	None
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**10.13**	**10.06**	**4.996**	**2.182**	**.0082**	**.0487**
Stddev	.03	.01	.018	.086	.0009	.0005
%RSD	.3102	.0577	.3532	3.935	10.40	1.127
#1	10.16	10.06	5.016	2.276	.0082	.0488
#2	10.11	10.06	4.982	2.163	.0091	.0491
#3	10.12	10.05	4.991	2.107	.0074	.0481
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	None
Value						
Range						

Sample Name: ICSAB 00027 Acquired: 7/26/2011 15:30:37 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**9.310**	**9.761**	**2.905**	**2.993**
Stddev	.027	.018	.003	.004
%RSD	.2910	.1836	.1007	.1453
#1	9.319	9.766	2.906	2.997
#2	9.280	9.741	2.902	2.989
#3	9.332	9.775	2.907	2.992
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1706.2**	**19871.**	**318.61**	**875.14**
Stddev	5.7	19.	1.13	8.63
%RSD	.33651	.09404	.35337	.98606
#1	1699.6	19852.	319.36	876.53
#2	1710.2	19890.	319.15	882.99
#3	1708.7	19870.	317.31	865.90

Sample Name: CCV Acquired: 7/26/2011 17:11:53 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.9715**	**10.42**	**4.884**	**2.391**	**2.508**	**.10076**
Stddev	.0353	.10	.016	.085	.004	.00584
%RSD	3.632	.9838	.3317	3.548	.1435	5.7992
#1	1.004	10.50	4.866	2.451	2.504	.10611
#2	.9339	10.30	4.889	2.294	2.509	.09452
#3	.9768	10.46	4.897	2.427	2.511	.10163
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**20.00**	**.5003**	**.4783**	**.4998**	**.4952**	**19.93**
Stddev	.89	.0014	.0008	.0008	.0015	.84
%RSD	4.441	.2891	.1767	.1577	.3013	4.209
#1	20.70	.4987	.4784	.4989	.4962	20.53
#2	19.00	.5007	.4791	.5003	.4934	18.97
#3	20.29	.5014	.4774	.5003	.4958	20.28
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 17:11:53 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**19.96**	**.5100**	**.4964**	**14.90**	**.4782**	**9.801**
Stddev	.01	.0006	.0020	.62	.0009	.062
%RSD	.0698	.1258	.4058	4.150	.1869	.6316
#1	19.95	.5104	.4940	15.36	.4779	9.731
#2	19.96	.5092	.4974	14.20	.4792	9.824
#3	19.97	.5102	.4977	15.15	.4776	9.848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**4.738**	**2.425**	**4.873**	**10.13**	**2.518**	**4.996**
Stddev	.005	.007	.016	.44	.006	.030
%RSD	.1129	.2725	.3284	4.364	.2221	.5939
#1	4.732	2.417	4.854	10.44	2.514	4.990
#2	4.741	2.430	4.885	9.622	2.516	4.970
#3	4.742	2.427	4.878	10.32	2.524	5.028
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 17:11:53 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.5138**	**2.427**	**.5002**	**.5031**
Stddev	.0009	.008	.0004	.0011
%RSD	.1708	.3393	.0794	.2097
#1	.5140	2.418	.5005	.5018
#2	.5129	2.434	.4998	.5035
#3	.5146	2.430	.5003	.5038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2120.2**	**20954.**	**327.12**	**886.35**
Stddev	1.9	30.	11.90	31.36
%RSD	.08809	.14399	3.6391	3.5382
#1	2118.4	20986.	316.84	864.05
#2	2120.1	20949.	340.16	922.21
#3	2122.1	20927.	324.35	872.79

Sample Name: CCB Acquired: 7/26/2011 17:18:01 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0007**	**.4163**	**.0016**	**.0053**	**.0081**	**-.00039**
Stddev	.0006	.0801	.0013	.0013	.0006	.00114
%RSD	76.56	19.24	82.37	24.95	7.147	291.95
#1	.0013	.3469	.0012	.0067	.0086	-.00162
#2	.0002	.3981	.0006	.0050	.0080	.00063
#3	.0007	.5040	.0032	.0041	.0075	-.00018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**.2824**	**.0008**	**.0017**	**.0023**	**.0021**	**.4168**
Stddev	.0943	.0002	.0000	.0001	.0001	.0347
%RSD	33.38	19.18	2.589	6.048	4.897	8.329
#1	.3142	.0007	.0017	.0025	.0022	.4569
#2	.3566	.0010	.0017	.0023	.0020	.3956
#3	.1763	.0008	.0016	.0022	.0021	.3979
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 17:18:01 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0254**	**.0073**	**.0027**	**.0968**	**.0018**	**.0097**
Stddev	.0024	.0003	.0003	.0512	.0004	.0015
%RSD	9.309	3.870	11.24	52.86	21.25	15.89
#1	.0263	.0076	.0029	.1551	.0023	.0114
#2	.0272	.0074	.0029	.0759	.0016	.0084
#3	.0227	.0070	.0023	.0594	.0017	.0094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.0015**	**.0018**	**.0017**	**-.0756**	**.0028**	**.0143**
Stddev	.0023	.0011	.0009	.2477	.0002	.0010
%RSD	158.2	62.18	53.20	327.8	8.101	6.856
#1	.0041	.0031	.0007	-.3597	.0025	.0150
#2	.0003	.0014	.0020	.0947	.0029	.0147
#3	.0000	.0010	.0023	.0383	.0030	.0132
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 17:18:01 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0106**	**.0036**	**.0025**	**.0058**
Stddev	.0005	.0020	.0003	.0003
%RSD	4.663	56.64	14.03	4.520
#1	.0110	.0059	.0022	.0060
#2	.0106	.0021	.0029	.0058
#3	.0101	.0028	.0023	.0055
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2291.3**	**21201.**	**319.47**	**866.31**
Stddev	12.9	113.	4.65	2.44
%RSD	.56357	.53139	1.4558	.28190
#1	2277.7	21100.	323.63	866.16
#2	2303.4	21323.	314.45	863.94
#3	2292.8	21180.	320.32	868.82

Sample Name: MB 580-91183/13-A Acquired: 7/26/2011 17:27:07 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0001**	**.0759**	**-.0009**	**.0001**	**.0051**	**-.00011**
Stddev	.0003	.1592	.0009	.0009	.0003	.00112
%RSD	226.9	209.9	100.9	911.3	6.400	1038.1
#1	-.0001	.2541	.0000	-.0001	.0055	.00099
#2	.0004	.0259	-.0018	-.0007	.0050	-.00007
#3	.0001	-.0524	-.0008	.0011	.0048	-.00124

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**.0770**	**.0002**	**.0007**	**.0006**	**.0053**	**.3318**
Stddev	.0544	.0001	.0001	.0002	.0004	.0711
%RSD	70.69	34.62	7.411	28.95	6.743	21.42
#1	.0508	.0001	.0007	.0007	.0056	.3898
#2	.1396	.0002	.0006	.0004	.0054	.2525
#3	.0407	.0002	.0007	.0006	.0049	.3531

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0278**	**.0035**	**.0012**	**.0916**	**.0013**	**.0092**
Stddev	.0028	.0001	.0003	.0323	.0003	.0009
%RSD	10.19	2.548	25.09	35.23	25.00	9.615
#1	-.0245	.0036	.0009	.0840	.0009	.0102
#2	-.0294	.0035	.0012	.1270	.0016	.0085
#3	-.0295	.0034	.0015	.0638	.0014	.0089

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**-.0010**	**-.0019**	**-.0013**	**-.3305**	**.0012**	**.0047**
Stddev	.0017	.0008	.0036	.2444	.0014	.0007
%RSD	166.0	42.22	283.7	73.94	110.6	15.11
#1	-.0020	-.0011	.0028	-.2134	.0024	.0054
#2	-.0020	-.0027	-.0043	-.6113	-.0003	.0046
#3	.0009	-.0021	-.0023	-.1666	.0016	.0040

Sample Name: MB 580-91183/13-A Acquired: 7/26/2011 17:27:07 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0041**	**-.0002**	**.0012**	**.0072**
Stddev	.0001	.0022	.0001	.0001
%RSD	2.691	1047.	11.22	1.922
#1	.0042	-.0008	.0013	.0073
#2	.0040	-.0020	.0011	.0073
#3	.0040	.0022	.0011	.0070
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2280.8**	**21197.**	**323.13**	**875.67**
Stddev	4.3	42.	4.42	8.91
%RSD	.18814	.20011	1.3671	1.0179
#1	2284.9	21244.	324.35	875.16
#2	2276.3	21160.	326.80	884.83
#3	2281.3	21189.	318.22	867.03

Sample Name: LCS 580-91183/14-A Acquired: 7/26/2011 17:33:43 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5981**	**3.895**	**3.876**	**4.952**	**3.981**	**.10410**
Stddev	.0018	.078	.012	.027	.010	.00132
%RSD	.3060	1.999	.3175	.5389	.2477	1.2720
#1	.5963	3.927	3.873	4.949	3.982	.10515
#2	.5980	3.951	3.866	4.927	3.970	.10261
#3	.6000	3.806	3.890	4.980	3.990	.10454

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**20.19**	**.0977**	**.9610**	**.4085**	**.4947**	**19.75**
Stddev	.13	.0004	.0022	.0010	.0011	.18
%RSD	.6284	.3984	.2296	.2547	.2182	.8996
#1	20.11	.0979	.9627	.4077	.4960	19.83
#2	20.12	.0973	.9585	.4082	.4942	19.55
#3	20.33	.0981	.9618	.4097	.4940	19.87

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**19.20**	**1.014**	**4.821**	**19.96**	**.9716**	**18.64**
Stddev	.02	.001	.018	.10	.0027	.06
%RSD	.1075	.0574	.3633	.5007	.2781	.3306
#1	19.21	1.015	4.826	20.01	.9715	18.66
#2	19.21	1.015	4.802	19.84	.9689	18.57
#3	19.18	1.014	4.836	20.02	.9743	18.68

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.9544**	**2.859**	**3.744**	**-.1018**	**5.025**	**.0011**
Stddev	.0045	.007	.016	.3382	.018	.0005
%RSD	.4703	.2317	.4202	332.3	.3543	50.05
#1	.9539	2.861	3.756	-.3994	5.019	.0005
#2	.9501	2.851	3.726	.2660	5.011	.0012
#3	.9591	2.864	3.750	-.1720	5.045	.0016

Sample Name: LCS 580-91183/14-A Acquired: 7/26/2011 17:33:43 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	Tl1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**4.925**	**3.790**	**.9951**	**.9626**
Stddev	.013	.016	.0010	.0030
%RSD	.2602	.4204	.1053	.3135
#1	4.929	3.796	.9954	.9628
#2	4.935	3.772	.9959	.9595
#3	4.911	3.802	.9939	.9656
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2088.4**	**21212.**	**320.02**	**875.64**
Stddev	3.5	42.	1.36	4.80
%RSD	.16914	.20009	.42489	.54831
#1	2089.7	21223.	320.69	876.65
#2	2091.2	21247.	320.90	879.86
#3	2084.5	21165.	318.45	870.41

Sample Name: LCSD 580-91183/15-A Acquired: 7/26/2011 17:39:52 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5879**	**3.894**	**3.890**	**4.890**	**4.011**	**.10172**
Stddev	.0138	.253	.004	.095	.001	.00247
%RSD	2.345	6.487	.1054	1.941	.0223	2.4307
#1	.6028	3.714	3.890	4.999	4.012	.09897
#2	.5854	3.786	3.894	4.831	4.011	.10377
#3	.5755	4.183	3.885	4.839	4.010	.10241

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**19.61**	**.0984**	**.9637**	**.4059**	**.5030**	**19.68**
Stddev	.32	.0003	.0011	.0021	.0016	.02
%RSD	1.629	.3034	.1146	.5173	.3200	.1070
#1	19.93	.0982	.9626	.4079	.5013	19.66
#2	19.61	.0988	.9648	.4037	.5045	19.69
#3	19.30	.0983	.9638	.4060	.5032	19.70

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**19.47**	**1.029**	**4.904**	**19.84**	**.9716**	**18.85**
Stddev	.07	.003	.015	.08	.0012	.01
%RSD	.3497	.2692	.3023	.4235	.1231	.0378
#1	19.39	1.026	4.887	19.91	.9703	18.85
#2	19.51	1.031	4.913	19.74	.9724	18.86
#3	19.51	1.030	4.912	19.86	.9722	18.86

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.9536**	**2.883**	**3.765**	**-.1684**	**5.010**	**.0003**
Stddev	.0017	.004	.005	.0160	.005	.0011
%RSD	.1795	.1445	.1376	9.488	.1038	341.8
#1	.9536	2.888	3.764	-.1499	5.016	.0016
#2	.9553	2.879	3.771	-.1780	5.007	.0000
#3	.9519	2.883	3.760	-.1772	5.008	-.0006

Sample Name: LCSD 580-91183/15-A Acquired: 7/26/2011 17:39:52 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**5.038**	**3.838**	**1.013**	**.9661**
Stddev	.012	.008	.002	.0004
%RSD	.2433	.1980	.2393	.0437
#1	5.024	3.831	1.010	.9666
#2	5.044	3.839	1.015	.9658
#3	5.046	3.846	1.014	.9660

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2079.2**	**20967.**	**327.40**	**883.04**
Stddev	8.5	108.	6.11	11.27
%RSD	.40978	.51583	1.8666	1.2758
#1	2088.7	21091.	320.95	870.24
#2	2077.0	20919.	328.14	891.46
#3	2072.1	20891.	333.10	887.41

Sample Name: LCSSRM 580-91183/16- Acquired: 7/26/2011 17:46:01 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.5002	79.14	1.060	1.585	3.192	.91328
Stddev	.0087	.36	.010	.006	.016	.00637
%RSD	1.740	.4512	.9621	.4032	.5117	.69791
#1	.4907	79.56	1.070	1.592	3.210	.92063
#2	.5020	78.94	1.060	1.579	3.186	.90933
#3	.5079	78.94	1.050	1.583	3.179	.90988

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	69.94	1.151	1.456	.9548	.7712	23.72
Stddev	.65	.006	.011	.0091	.0071	.33
%RSD	.9297	.5131	.7480	.9574	.9246	1.409
#1	69.23	1.157	1.468	.9631	.7631	24.04
#2	70.08	1.149	1.451	.9563	.7764	23.37
#3	70.51	1.146	1.448	.9450	.7743	23.74

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	26.84	4.647	.9245	7.061	1.176	4.861
Stddev	.14	.029	.0029	.054	.008	.025
%RSD	.5269	.6240	.3119	.7633	.6563	.5224
#1	26.71	4.616	.9274	7.099	1.185	4.887
#2	26.99	4.673	.9244	7.000	1.172	4.860
#3	26.84	4.654	.9216	7.085	1.171	4.836

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	1.600	.9955	2.069	14.53	1.347	1.192
Stddev	.012	.0038	.011	.14	.011	.012
%RSD	.7505	.3859	.5253	.9864	.8303	.9757
#1	1.613	.9991	2.081	14.66	1.359	1.205
#2	1.596	.9915	2.065	14.37	1.345	1.189
#3	1.590	.9959	2.061	14.54	1.336	1.183

Sample Name: LCSSRM 580-91183/16- Acquired: 7/26/2011 17:46:01 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**1.941**	**1.692**	**1.076**	**3.018**
Stddev	.014	.008	.007	.017
%RSD	.7127	.4780	.6752	.5521
#1	1.925	1.701	1.068	3.036
#2	1.952	1.687	1.082	3.013
#3	1.946	1.688	1.078	3.004
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2022.4**	**21325.**	**336.36**	**917.01**
Stddev	11.0	63.	2.72	3.05
%RSD	.54556	.29738	.80939	.33222
#1	2009.8	21252.	338.90	914.82
#2	2027.0	21353.	336.68	920.49
#3	2030.4	21369.	333.49	915.71

Sample Name: 580-27549-A-2-B sd Acquired: 7/26/2011 17:52:12 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0007**	**82.27**	**.0240**	**.0126**	**.1617**	**.00127**
Stddev	.0002	3.05	.0012	.0005	.0010	.00070
%RSD	31.68	3.705	4.948	3.830	.5918	55.203
#1	.0008	84.94	.0252	.0127	.1626	.00051
#2	.0004	82.91	.0239	.0130	.1619	.00189
#3	.0008	78.95	.0228	.0120	.1607	.00139

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**5.949**	**.0006**	**.0531**	**.1996**	**.1862**	**2.009**
Stddev	.247	.0001	.0002	.0012	.0034	.059
%RSD	4.149	11.27	.3568	.5802	1.824	2.943
#1	6.234	.0006	.0531	.2004	.1897	2.074
#2	5.813	.0007	.0533	.2002	.1860	1.959
#3	5.800	.0006	.0529	.1983	.1829	1.993

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**35.06**	**2.794**	**.0055**	**.0592**	**.2844**	**2.483**
Stddev	.67	.052	.0006	.0584	.0021	.016
%RSD	1.911	1.866	11.27	98.60	.7500	.6228
#1	35.81	2.853	.0060	.0350	.2868	2.499
#2	34.86	2.779	.0056	.1258	.2837	2.484
#3	34.52	2.752	.0048	.0168	.2828	2.468

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.0273**	**.0043**	**.0127**	**4.214**	**.0114**	**.0226**
Stddev	.0027	.0028	.0038	.032	.0006	.0008
%RSD	9.917	64.93	29.73	.7678	5.043	3.761
#1	.0284	.0058	.0170	4.191	.0119	.0233
#2	.0292	.0061	.0115	4.251	.0108	.0227
#3	.0242	.0011	.0097	4.201	.0116	.0217

Sample Name: 580-27549-A-2-B sd Acquired: 7/26/2011 17:52:12 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	2.743	.0026	.2056	.1822
Stddev	.058	.0039	.0043	.0011
%RSD	2.095	146.6	2.103	.5815
#1	2.807	.0060	.2104	.1833
#2	2.726	.0036	.2045	.1822
#3	2.696	-.0016	.2020	.1812
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2111.5	21588.	328.47	896.93
Stddev	10.2	123.	2.17	5.85
%RSD	.48171	.56756	.66081	.65268
#1	2101.0	21465.	327.06	891.60
#2	2112.0	21589.	327.37	896.00
#3	2121.4	21710.	330.97	903.19

Sample Name: 580-27549-A-2-C DU Acquired: 7/26/2011 18:05:12 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0044**	**474.8**	**.1396**	**.0370**	**.9431**	**.00649**
Stddev	.0001	1.3	.0011	.0007	.0051	.00042
%RSD	2.218	.2752	.7892	1.896	.5415	6.4338
#1	.0043	473.3	.1394	.0374	.9406	.00630
#2	.0043	475.9	.1408	.0374	.9489	.00620
#3	.0045	475.1	.1387	.0362	.9397	.00697

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**29.23**	**.0005**	**.3353**	**1.132**	**1.072**	**11.44**
Stddev	.13	.0002	.0011	.003	.002	.30
%RSD	.4488	38.08	.3193	.2273	.2279	2.612
#1	29.18	.0007	.3365	1.129	1.070	11.19
#2	29.38	.0004	.3348	1.133	1.072	11.77
#3	29.14	.0004	.3346	1.134	1.075	11.37

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**224.3**	**15.35**	**.0059**	**.0911**	**2.008**	**14.94**
Stddev	.0	.05	.0003	.0226	.002	.03
%RSD	.0220	.3549	4.362	24.83	.0994	.1765
#1	224.3	15.40	.0062	.0999	2.010	14.97
#2	224.4	15.29	.0057	.1079	2.006	14.95
#3	224.4	15.36	.0058	.0654	2.008	14.92

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.1606**	**.0088**	**.0587**	**23.45**	**.0386**	**.1264**
Stddev	.0019	.0024	.0025	.05	.0011	.0016
%RSD	1.179	27.15	4.291	.2010	2.969	1.298
#1	.1627	.0101	.0561	23.43	.0375	.1245
#2	.1601	.0061	.0611	23.50	.0398	.1274
#3	.1591	.0104	.0589	23.42	.0384	.1272

Sample Name: 580-27549-A-2-C DU Acquired: 7/26/2011 18:05:12 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**14.87**	**-.0148**	**1.201**	**1.035**
Stddev	.01	.0041	.001	.001
%RSD	.0631	28.07	.0864	.0679
#1	14.87	-.0187	1.200	1.035
#2	14.88	-.0151	1.201	1.036
#3	14.86	-.0104	1.202	1.035

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1826.9**	**21110.**	**339.53**	**932.13**
Stddev	1.9	29.	2.14	5.14
%RSD	.10632	.13626	.63162	.55164
#1	1828.4	21141.	340.42	937.02
#2	1827.7	21085.	337.09	926.77
#3	1824.7	21105.	341.09	932.59

Sample Name: 580-27549-A-2-D MS Acquired: 7/26/2011 18:11:48 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5643**	**448.1**	**4.013**	**4.295**	**4.710**	**.10472**
Stddev	.0057	1.6	.005	.015	.010	.00123
%RSD	1.010	.3470	.1365	.3526	.2029	1.1773
#1	.5609	448.0	4.013	4.281	4.699	.10379
#2	.5612	449.7	4.019	4.311	4.716	.10612
#3	.5709	446.6	4.008	4.292	4.715	.10427

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**46.74**	**.0926**	**1.350**	**1.470**	**1.474**	**29.54**
Stddev	.03	.0003	.001	.007	.006	.33
%RSD	.0704	.3187	.0681	.4678	.4048	1.121
#1	46.74	.0925	1.349	1.474	1.467	29.46
#2	46.77	.0924	1.351	1.474	1.479	29.90
#3	46.70	.0929	1.351	1.462	1.476	29.26

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**209.9**	**14.62**	**4.586**	**20.01**	**2.820**	**31.15**
Stddev	.7	.12	.016	.14	.001	.09
%RSD	.3228	.8401	.3558	.6806	.0327	.3029
#1	209.2	14.49	4.569	20.02	2.819	31.04
#2	210.6	14.72	4.589	20.14	2.821	31.20
#3	209.9	14.66	4.601	19.87	2.819	31.20

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**1.158**	**1.368**	**3.887**	**33.05**	**4.395**	**.1408**
Stddev	.005	.003	.020	.11	.008	.0012
%RSD	.3986	.2246	.5015	.3306	.1832	.8757
#1	1.153	1.366	3.868	32.95	4.401	.1411
#2	1.162	1.371	3.907	33.04	4.399	.1419
#3	1.159	1.365	3.888	33.16	4.386	.1395

Sample Name: 580-27549-A-2-D MS Acquired: 7/26/2011 18:11:48 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**19.98**	**3.973**	**2.120**	**1.894**
Stddev	.19	.012	.006	.004
%RSD	.9747	.3120	.2740	.2234
#1	19.76	3.960	2.114	1.889
#2	20.03	3.978	2.126	1.897
#3	20.14	3.983	2.120	1.896
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1788.6**	**21057.**	**345.66**	**938.28**
Stddev	1.5	17.	2.82	4.03
%RSD	.08472	.08162	.81508	.42954
#1	1787.2	21076.	346.44	942.53
#2	1788.4	21052.	348.01	934.51
#3	1790.2	21043.	342.54	937.82

Sample Name: 580-27549-A-2-E MSD Acquired: 7/26/2011 18:18:14 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5653**	**466.2**	**3.949**	**4.268**	**4.702**	**.10354**
Stddev	.0061	1.0	.006	.009	.009	.00141
%RSD	1.080	.2167	.1642	.1989	.1924	1.3588
#1	.5661	467.3	3.956	4.278	4.712	.10425
#2	.5589	465.6	3.946	4.262	4.698	.10446
#3	.5710	465.5	3.944	4.264	4.695	.10192

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**45.49**	**.0928**	**1.348**	**1.493**	**1.522**	**29.03**
Stddev	.47	.0004	.006	.005	.002	.24
%RSD	1.027	.4371	.4348	.3077	.1236	.8177
#1	45.45	.0928	1.354	1.497	1.520	29.30
#2	45.05	.0923	1.347	1.488	1.523	28.85
#3	45.98	.0932	1.343	1.493	1.523	28.94

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**226.0**	**15.05**	**4.591**	**19.56**	**2.940**	**31.56**
Stddev	.5	.08	.008	.02	.013	.05
%RSD	.2331	.5580	.1833	.0821	.4281	.1442
#1	225.4	15.14	4.601	19.58	2.953	31.62
#2	226.2	14.97	4.588	19.55	2.938	31.53
#3	226.4	15.05	4.585	19.55	2.928	31.54

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**1.155**	**1.320**	**3.884**	**34.09**	**4.335**	**.1384**
Stddev	.002	.005	.005	.43	.009	.0010
%RSD	.2076	.4038	.1263	1.249	.2103	.6981
#1	1.155	1.322	3.890	34.26	4.344	.1373
#2	1.158	1.323	3.881	33.60	4.326	.1390
#3	1.153	1.314	3.881	34.39	4.335	.1389

Sample Name: 580-27549-A-2-E MSD Acquired: 7/26/2011 18:18:14 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	Tl1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**19.13**	**3.963**	**2.153**	**1.978**
Stddev	.12	.014	.004	.004
%RSD	.6158	.3467	.1955	.2083
#1	19.10	3.966	2.149	1.983
#2	19.03	3.976	2.155	1.976
#3	19.26	3.949	2.157	1.976
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1763.4**	**20738.**	**339.77**	**927.04**
Stddev	6.5	33.	3.58	2.65
%RSD	.36866	.15711	1.0529	.28574
#1	1756.1	20701.	339.52	924.56
#2	1765.4	20749.	343.46	926.74
#3	1768.6	20763.	336.32	929.83

Sample Name: 580-27549-A-2-B pds Acquired: 7/26/2011 18:24:41 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5680**	**370.7**	**3.972**	**4.497**	**4.455**	**.10204**
Stddev	.0036	1.3	.002	.027	.009	.00292
%RSD	.6426	.3536	.0565	.6085	.1973	2.8637
#1	.5642	371.8	3.975	4.472	4.458	.09957
#2	.5685	369.2	3.972	4.526	4.461	.10527
#3	.5715	370.9	3.970	4.493	4.445	.10129

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**43.30**	**.0911**	**1.279**	**1.275**	**1.339**	**28.12**
Stddev	.09	.0003	.003	.002	.002	.10
%RSD	.2176	.3584	.2096	.1783	.1665	.3636
#1	43.41	.0911	1.281	1.276	1.341	28.14
#2	43.23	.0913	1.276	1.276	1.337	28.22
#3	43.26	.0907	1.280	1.272	1.337	28.01

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**180.6**	**12.72**	**4.577**	**19.52**	**2.452**	**29.45**
Stddev	.6	.04	.004	.08	.005	.04
%RSD	.3163	.3424	.0924	.3881	.2127	.1435
#1	181.3	12.67	4.577	19.44	2.456	29.50
#2	180.5	12.76	4.580	19.56	2.446	29.45
#3	180.2	12.73	4.572	19.58	2.454	29.41

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**1.125**	**2.818**	**3.833**	**21.27**	**4.665**	**.0949**
Stddev	.006	.005	.013	.29	.009	.0022
%RSD	.5354	.1721	.3370	1.343	.1832	2.302
#1	1.129	2.819	3.836	21.59	4.675	.0924
#2	1.118	2.812	3.844	21.03	4.661	.0963
#3	1.128	2.822	3.819	21.21	4.659	.0960

Sample Name: 580-27549-A-2-B pds Acquired: 7/26/2011 18:24:41 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**16.75**	**3.879**	**1.870**	**1.750**
Stddev	.09	.006	.006	.003
%RSD	.5261	.1539	.3494	.1695
#1	16.86	3.872	1.877	1.752
#2	16.71	3.883	1.867	1.751
#3	16.70	3.883	1.865	1.746
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1849.8**	**21551.**	**346.11**	**943.42**
Stddev	5.1	37.	1.31	4.68
%RSD	.27351	.17259	.37872	.49606
#1	1844.7	21513.	347.61	946.19
#2	1854.8	21553.	345.18	938.02
#3	1849.9	21588.	345.53	946.05

Sample Name: CCV Acquired: 7/26/2011 18:31:06 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.9931**	**10.55**	**4.837**	**2.410**	**2.477**	**.09992**
Stddev	.0069	.30	.012	.013	.008	.00212
%RSD	.6978	2.874	.2421	.5210	.3079	2.1261
#1	.9968	10.27	4.836	2.399	2.482	.10221
#2	.9974	10.51	4.849	2.407	2.482	.09802
#3	.9851	10.87	4.826	2.423	2.469	.09954
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**20.04**	**.4894**	**.4723**	**.5005**	**.4933**	**19.37**
Stddev	.10	.0009	.0014	.0026	.0035	.29
%RSD	.4754	.1936	.2869	.5213	.7142	1.506
#1	20.12	.4901	.4731	.4995	.4972	19.54
#2	20.06	.4897	.4730	.5034	.4924	19.03
#3	19.93	.4883	.4707	.4985	.4903	19.53
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 18:31:06 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**19.89**	**.5298**	**.4899**	**14.98**	**.4752**	**9.570**
Stddev	.07	.0029	.0012	.08	.0002	.020
%RSD	.3428	.5512	.2351	.5450	.0524	.2122
#1	19.95	.5328	.4908	15.02	.4754	9.585
#2	19.89	.5298	.4903	14.88	.4749	9.579
#3	19.82	.5270	.4886	15.03	.4751	9.547
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**4.678**	**2.396**	**4.782**	**10.01**	**2.512**	**5.009**
Stddev	.011	.003	.004	.26	.011	.035
%RSD	.2246	.1202	.0823	2.644	.4280	.6949
#1	4.677	2.398	4.783	10.18	2.515	5.048
#2	4.688	2.398	4.785	10.15	2.520	5.001
#3	4.667	2.393	4.778	9.707	2.500	4.980
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 18:31:06 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	.5333	2.383	.4961	.4882
Stddev	.0021	.006	.0026	.0017
%RSD	.3921	.2542	.5294	.3556
#1	.5345	2.376	.4983	.4893
#2	.5345	2.388	.4969	.4891
#3	.5309	2.385	.4932	.4862
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2153.5	21414.	328.50	898.81
Stddev	7.7	79.	2.00	2.96
%RSD	.35528	.36775	.60991	.32955
#1	2148.0	21341.	328.96	900.55
#2	2150.3	21404.	326.31	900.48
#3	2162.2	21497.	330.24	895.39

Sample Name: CCB Acquired: 7/26/2011 18:39:45 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0002**	**.4832**	**.0055**	**.0067**	**.0059**	**.00123**
Stddev	.0003	.1481	.0006	.0001	.0002	.00147
%RSD	128.5	30.64	10.25	2.009	2.700	119.96
#1	.0003	.4641	.0061	.0066	.0060	-.00032
#2	-.0001	.6399	.0054	.0067	.0057	.00261
#3	.0005	.3457	.0050	.0069	.0059	.00139
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**-.0400**	**.0000**	**.0013**	**.0015**	**.0024**	**.1454**
Stddev	.0385	.000	.0001	.0003	.0002	.0234
%RSD	96.22	264.6	9.431	19.48	6.394	16.09
#1	-.0801	-.0001	.0014	.0012	.0023	.1356
#2	-.0034	.0001	.0012	.0015	.0026	.1285
#3	-.0365	-.0001	.0012	.0018	.0023	.1721
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 18:39:45 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.2500**	F **.0239**	**.0050**	**-.0241**	**.0025**	**.0383**
Stddev	.0156	.0007	.0004	.0063	.0003	.0019
%RSD	6.224	2.800	8.158	26.06	11.80	5.087
#1	.2664	.0247	.0047	-.0220	.0028	.0381
#2	.2482	.0238	.0049	-.0192	.0022	.0403
#3	.2354	.0234	.0055	-.0312	.0023	.0364
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.0200				
Low Limit		-.0200				

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.0009**	**.0024**	**.0049**	**-.2892**	**.0057**	**.0007**
Stddev	.0018	.0008	.0009	.1135	.0004	.0012
%RSD	188.3	31.23	19.11	39.25	7.692	163.6
#1	.0029	.0027	.0044	-.1594	.0062	-.0002
#2	.0005	.0016	.0060	-.3699	.0057	.0020
#3	-.0006	.0031	.0044	-.3382	.0053	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 18:39:45 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	F .0261	.0028	.0030	.0023
Stddev	.0008	.0014	.0000	.0001
%RSD	3.116	49.51	.3383	3.058
#1	.0270	.0043	.0030	.0023
#2	.0259	.0027	.0030	.0023
#3	.0254	.0015	.0030	.0024
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	.0200			
Low Limit	-.0200			
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2300.8	21488.	332.53	907.88
Stddev	20.5	178.	4.70	18.98
%RSD	.88945	.82934	1.4133	2.0907
#1	2279.2	21308.	337.94	927.89
#2	2303.4	21490.	330.18	905.61
#3	2319.9	21665.	329.47	890.14

Sample Name: 580-27549-A-1-E Acquired: 7/26/2011 18:48:49 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0055**	**462.3**	**.1344**	**.0407**	**1.065**	**.00641**
Stddev	.0002	2.6	.0037	.0011	.006	.00045
%RSD	3.034	.5648	2.789	2.734	.5267	7.0460
#1	.0057	464.1	.1344	.0403	1.059	.00589
#2	.0055	463.6	.1307	.0398	1.069	.00669
#3	.0053	459.3	.1382	.0419	1.067	.00665

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**47.19**	**.0017**	**.4244**	**1.452**	**1.275**	**14.55**
Stddev	.42	.0002	.0010	.004	.005	.19
%RSD	.9006	9.731	.2393	.2733	.3903	1.335
#1	47.43	.0018	.4251	1.456	1.280	14.50
#2	46.70	.0015	.4248	1.450	1.276	14.38
#3	47.44	.0018	.4232	1.449	1.270	14.76

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**320.0**	**20.69**	**.0084**	**.4452**	**2.572**	**17.57**
Stddev	3.0	.12	.0002	.0296	.002	.05
%RSD	.9526	.5862	1.789	6.656	.0806	.2732
#1	323.2	20.82	.0086	.4153	2.574	17.62
#2	319.6	20.68	.0083	.4746	2.571	17.55
#3	317.2	20.57	.0085	.4455	2.570	17.53

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.2244**	**.0210**	**.0685**	**17.71**	**.0309**	**.1348**
Stddev	.0040	.0035	.0019	.39	.0041	.0013
%RSD	1.801	16.66	2.765	2.212	13.24	.9465
#1	.2287	.0191	.0684	17.26	.0338	.1352
#2	.2206	.0250	.0704	17.87	.0262	.1358
#3	.2239	.0188	.0666	17.99	.0327	.1334

Sample Name: 580-27549-A-1-E Acquired: 7/26/2011 18:48:49 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**15.59**	**-.0160**	**1.230**	**1.203**
Stddev	.13	.0038	.003	.002
%RSD	.8217	24.07	.2534	.1681
#1	15.72	-.0144	1.232	1.205
#2	15.57	-.0203	1.231	1.202
#3	15.47	-.0131	1.226	1.202

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1776.9**	**21100.**	**341.67**	**937.01**
Stddev	6.8	93.	4.01	5.91
%RSD	.38330	.43868	1.1725	.63088
#1	1772.2	21016.	339.06	934.89
#2	1773.8	21086.	346.28	943.69
#3	1784.7	21199.	339.67	932.45

Sample Name: 580-27549-A-4-A Acquired: 7/26/2011 19:02:15 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0058**	**765.2**	**.2693**	**.0570**	**2.128**	**.01042**
Stddev	.0006	4.3	.0018	.0019	.005	.00124
%RSD	10.38	.5664	.6623	3.260	.2198	11.904
#1	.0065	761.7	.2684	.0589	2.122	.01169
#2	.0055	770.1	.2713	.0569	2.130	.01036
#3	.0054	763.8	.2681	.0552	2.130	.00921

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**65.22**	**-.0075**	**.7639**	**2.781**	**2.009**	**19.29**
Stddev	.52	.0004	.0012	.006	.004	.34
%RSD	.7950	4.889	.1577	.2107	.2049	1.759
#1	64.85	-.0072	.7634	2.775	2.004	19.64
#2	64.99	-.0079	.7653	2.785	2.010	19.26
#3	65.81	-.0074	.7630	2.785	2.012	18.96

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**532.0**	**18.36**	**.0088**	**.2853**	**6.120**	**16.58**
Stddev	1.0	.05	.0003	.0290	.010	.04
%RSD	.1827	.2984	3.818	10.16	.1636	.2225
#1	533.1	18.39	.0086	.3007	6.111	16.61
#2	531.3	18.29	.0092	.2519	6.131	16.60
#3	531.7	18.39	.0087	.3034	6.118	16.54

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.2374**	**.0138**	**.1196**	**21.65**	**.0580**	**.3645**
Stddev	.0007	.0028	.0098	.29	.0010	.0016
%RSD	.3145	20.05	8.192	1.353	1.672	.4418
#1	.2371	.0136	.1304	21.32	.0590	.3633
#2	.2383	.0167	.1172	21.78	.0579	.3663
#3	.2369	.0112	.1113	21.86	.0570	.3638

Sample Name: 580-27549-A-4-A Acquired: 7/26/2011 19:02:15 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	22.21	-.0172	1.927	1.685
Stddev	.12	.0025	.005	.002
%RSD	.5302	14.25	.2405	.1332
#1	22.17	-.0194	1.921	1.686
#2	22.34	-.0146	1.930	1.685
#3	22.11	-.0178	1.929	1.682

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1593.8	21169.	363.37	982.59
Stddev	8.3	93.	4.05	7.27
%RSD	.51815	.44051	1.1143	.74037
#1	1603.1	21273.	366.43	979.18
#2	1591.2	21143.	364.90	990.94
#3	1587.2	21092.	358.78	977.64

Sample Name: 580-27549-A-5-A Acquired: 7/26/2011 19:08:56 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0008**	**267.5**	**.6119**	**.0582**	**2.150**	**.01913**
Stddev	.0002	1.6	.0007	.0012	.006	.00125
%RSD	25.18	.5943	.1135	2.013	.2607	6.5545
#1	-.0006	266.1	.6112	.0595	2.147	.02051
#2	-.0010	267.2	.6119	.0577	2.156	.01808
#3	-.0007	269.2	.6126	.0574	2.146	.01879

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**47.57**	**.0010**	**.3685**	**1.496**	**1.522**	**43.20**
Stddev	.20	.0000	.0004	.006	.008	.29
%RSD	.4121	2.082	.1204	.4273	.5480	.6675
#1	47.66	.0010	.3689	1.499	1.514	43.21
#2	47.35	.0010	.3685	1.501	1.524	43.48
#3	47.71	.0010	.3680	1.489	1.530	42.90

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**203.3**	**4.472**	**.0210**	**1.310**	**2.178**	**8.372**
Stddev	.9	.019	.0004	.033	.003	.029
%RSD	.4509	.4337	1.959	2.549	.1507	.3437
#1	202.2	4.450	.0206	1.347	2.177	8.341
#2	203.6	4.478	.0210	1.282	2.182	8.376
#3	203.9	4.487	.0214	1.301	2.175	8.398

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.2770**	**.0078**	**.0264**	**13.32**	**.0302**	**.3457**
Stddev	.0029	.0042	.0011	.17	.0005	.0013
%RSD	1.038	53.77	4.073	1.309	1.788	.3671
#1	.2755	.0030	.0273	13.45	.0305	.3472
#2	.2751	.0096	.0266	13.39	.0306	.3450
#3	.2803	.0109	.0252	13.12	.0296	.3449

Sample Name: 580-27549-A-5-A Acquired: 7/26/2011 19:08:56 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	.9487	-.0010	.2665	.5885
Stddev	.0053	.0062	.0017	.0010
%RSD	.5574	629.1	.6320	.1711
#1	.9428	.0023	.2647	.5874
#2	.9530	.0029	.2669	.5894
#3	.9503	-.0082	.2680	.5887

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1927.3	21965.	352.84	952.44
Stddev	3.9	65.	1.16	5.06
%RSD	.20132	.29634	.32902	.53136
#1	1925.9	22040.	351.78	953.11
#2	1924.3	21921.	354.08	947.08
#3	1931.7	21935.	352.65	957.13

Sample Name: CCV Acquired: 7/26/2011 19:15:14 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.9789**	**10.89**	**4.778**	**2.408**	**2.430**	**.10413**
Stddev	.0446	.31	.009	.130	.004	.00502
%RSD	4.561	2.885	.1809	5.378	.1678	4.8198
#1	.9548	10.72	4.768	2.337	2.426	.10221
#2	1.030	11.25	4.781	2.558	2.429	.10983
#3	.9514	10.69	4.784	2.331	2.434	.10036
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**19.94**	**.4829**	**.4673**	**.4955**	**.4836**	**19.49**
Stddev	1.27	.0008	.0003	.0017	.0009	1.18
%RSD	6.382	.1753	.0574	.3425	.1927	6.056
#1	18.97	.4820	.4671	.4971	.4836	18.74
#2	21.38	.4829	.4672	.4958	.4845	20.85
#3	19.47	.4837	.4676	.4937	.4826	18.89
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 19:15:14 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**20.08**	**.5220**	**.4720**	**14.97**	**.4766**	**9.366**
Stddev	.04	.0005	.0014	.91	.0006	.028
%RSD	.1983	.0870	.3031	6.071	.1302	.2946
#1	20.03	.5222	.4705	14.39	.4765	9.335
#2	20.10	.5223	.4720	16.01	.4761	9.388
#3	20.10	.5215	.4733	14.50	.4773	9.376
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**4.665**	**2.362**	**4.747**	**10.06**	**2.483**	**4.913**
Stddev	.004	.006	.016	.32	.002	.047
%RSD	.0953	.2558	.3429	3.187	.0607	.9525
#1	4.665	2.356	4.734	10.08	2.483	4.863
#2	4.660	2.361	4.742	10.38	2.485	4.956
#3	4.669	2.368	4.765	9.738	2.482	4.919
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 19:15:14 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.5114**	**2.336**	**.4817**	**.4784**
Stddev	.0011	.013	.0006	.0004
%RSD	.2154	.5640	.1198	.0938
#1	.5109	2.321	.4811	.4780
#2	.5127	2.345	.4822	.4784
#3	.5106	2.342	.4816	.4789
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2216.6**	**22266.**	**338.44**	**913.41**
Stddev	2.0	27.	15.19	46.77
%RSD	.09201	.12203	4.4876	5.1199
#1	2217.9	22292.	347.58	939.57
#2	2217.7	22267.	320.91	859.42
#3	2214.3	22238.	346.83	941.24

Sample Name: CCB Acquired: 7/26/2011 19:23:53 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0005**	F **.6142**	**.0002**	**-.0018**	**.0023**	**-.00023**
Stddev	.0003	.2125	.0016	.0002	.0002	.00065
%RSD	75.56	34.59	676.3	11.70	9.742	288.48
#1	-.0008	.7752	-.0004	-.0020	.0020	-.00037
#2	-.0002	.3734	.0020	-.0016	.0025	-.00080
#3	-.0004	.6939	-.0009	-.0017	.0023	.00049
Check ?	Chk Pass	Chk Fail	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit		.5000				
Low Limit		-.5000				

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**-.0687**	**-.0003**	**.0002**	**.0017**	**.0023**	**.0991**
Stddev	.0298	.0001	.0002	.0001	.0004	.1173
%RSD	43.43	40.46	92.01	4.425	18.20	118.4
#1	-.0561	-.0002	.0004	.0016	.0025	.2277
#2	-.0473	-.0003	.0004	.0017	.0026	.0714
#3	-.1028	-.0004	.0000	.0017	.0018	-.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 19:23:53 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.3913**	**.0188**	**-.0001**	**-.0447**	**.0030**	**.0154**
Stddev	.0048	.0002	.0005	.0456	.0005	.0017
%RSD	1.221	1.032	827.2	102.2	15.36	11.12
#1	.3927	.0187	-.0006	-.0099	.0034	.0137
#2	.3952	.0190	-.0001	-.0278	.0025	.0171
#3	.3859	.0187	.0005	-.0963	.0031	.0155
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**-.0012**	**.0007**	**-.0019**	**-.2346**	**-.0001**	**.0001**
Stddev	.0012	.0021	.0019	.2082	.0006	.0005
%RSD	97.14	299.7	101.1	88.72	534.8	946.8
#1	-.0002	.0030	-.0020	-.4158	.0003	.0006
#2	-.0025	-.0009	-.0037	-.0072	-.0007	-.0004
#3	-.0009	.0000	.0001	-.2809	.0001	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 19:23:53 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0170**	**-.0013**	**.0016**	**.0012**
Stddev	.0001	.0008	.0001	.0002
%RSD	.6526	60.53	7.762	14.58
#1	.0171	-.0005	.0018	.0011
#2	.0169	-.0015	.0015	.0014
#3	.0170	-.0020	.0016	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2350.7**	**21758.**	**325.07**	**885.94**
Stddev	1.9	67.	1.99	9.02
%RSD	.07916	.30574	.61135	1.0177
#1	2348.9	21764.	324.72	880.85
#2	2352.6	21821.	327.20	896.35
#3	2350.6	21689.	323.28	880.62

Sample Name: MB 580-90943/13-B Acquired: 7/26/2011 19:32:59 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0007**	**.4379**	**.0002**	**-.0042**	**.0006**	**-.00099**
Stddev	.0002	.1425	.0019	.0004	.0001	.00109
%RSD	32.35	32.54	1216.	8.724	24.95	110.18
#1	-.0007	.6024	.0023	-.0038	.0007	-.00216
#2	-.0005	.3585	-.0003	-.0046	.0006	-.00080
#3	-.0009	.3529	-.0015	-.0042	.0004	-.00001

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**-.0794**	**-.0004**	**-.0001**	**.0007**	**.0014**	**-.0210**
Stddev	.0725	.0000	.0002	.0001	.0002	.1551
%RSD	91.30	11.54	210.4	18.10	11.18	739.4
#1	-.1583	-.0003	.0001	.0006	.0015	-.1897
#2	-.0645	-.0004	-.0002	.0007	.0014	.0113
#3	-.0156	-.0004	-.0001	.0009	.0012	.1154

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.2016**	**.0113**	**-.0005**	**-.0931**	**.0014**	**.0062**
Stddev	.0131	.0005	.0003	.0423	.0004	.0026
%RSD	6.479	4.365	74.36	45.45	30.88	41.48
#1	.2137	.0117	-.0001	-.0444	.0019	.0091
#2	.2034	.0114	-.0007	-.1212	.0011	.0043
#3	.1877	.0107	-.0006	-.1136	.0012	.0052

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**-.0021**	**-.0014**	**-.0029**	**-.2829**	**-.0003**	**-.0014**
Stddev	.0010	.0018	.0027	.0464	.0009	.0005
%RSD	48.54	128.1	91.96	16.42	281.1	34.94
#1	-.0025	-.0022	-.0046	-.3356	-.0002	-.0019
#2	-.0029	-.0027	.0002	-.2651	.0005	-.0014
#3	-.0009	.0007	-.0044	-.2479	-.0013	-.0009

Sample Name: MB 580-90943/13-B Acquired: 7/26/2011 19:32:59 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	Tl1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0096**	**-.0001**	**.0007**	**.0015**
Stddev	.0005	.0015	.0002	.0000
%RSD	5.523	1157.	24.02	.7919
#1	.0101	-.0007	.0007	.0015
#2	.0097	-.0013	.0009	.0015
#3	.0091	.0016	.0005	.0015

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2345.4**	**21958.**	**328.15**	**898.09**
Stddev	14.2	123.	2.90	9.26
%RSD	.60406	.56108	.88323	1.0307
#1	2333.9	21838.	330.89	907.60
#2	2341.0	21951.	328.44	897.57
#3	2361.2	22084.	325.12	889.11

Sample Name: LCS 580-91205/18-A Acquired: 7/26/2011 19:39:34 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6138**	**4.080**	**4.091**	**5.177**	**4.096**	**.10385**
Stddev	.0032	.357	.009	.021	.009	.00113
%RSD	.5204	8.743	.2265	.3980	.2114	1.0866
#1	.6117	3.755	4.085	5.189	4.090	.10400
#2	.6122	4.462	4.086	5.153	4.092	.10490
#3	.6175	4.021	4.101	5.188	4.106	.10266

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**20.04**	**.1020**	**.9954**	**.4212**	**.5142**	**19.78**
Stddev	.14	.0004	.0007	.0008	.0014	.12
%RSD	.6733	.3720	.0711	.1798	.2724	.5960
#1	19.92	.1017	.9948	.4204	.5128	19.66
#2	20.03	.1019	.9953	.4212	.5156	19.89
#3	20.19	.1025	.9962	.4219	.5142	19.79

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**20.48**	**1.048**	**4.928**	**19.99**	**1.008**	**19.58**
Stddev	.03	.002	.021	.08	.001	.07
%RSD	.1700	.1510	.4366	.3951	.1140	.3693
#1	20.51	1.048	4.914	20.07	1.007	19.51
#2	20.50	1.050	4.918	19.91	1.008	19.58
#3	20.44	1.047	4.953	19.99	1.010	19.65

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.9931**	**3.026**	**4.007**	**.0259**	**5.233**	**-.0018**
Stddev	.0008	.008	.011	.1625	.009	.0002
%RSD	.0760	.2599	.2740	627.6	.1822	11.57
#1	.9926	3.020	3.994	-.0642	5.227	-.0020
#2	.9927	3.024	4.012	.2134	5.228	-.0016
#3	.9940	3.035	4.014	-.0715	5.244	-.0019

Sample Name: LCS 580-91205/18-A Acquired: 7/26/2011 19:39:34 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**5.052**	**3.981**	**1.022**	**1.014**
Stddev	.005	.014	.002	.001
%RSD	.1036	.3482	.1634	.1312
#1	5.048	3.971	1.020	1.013
#2	5.058	3.976	1.023	1.013
#3	5.051	3.997	1.021	1.015
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2109.3**	**21435.**	**338.19**	**921.91**
Stddev	5.3	84.	3.05	2.90
%RSD	.25069	.39227	.90277	.31449
#1	2114.7	21509.	339.43	921.10
#2	2109.1	21452.	340.43	925.13
#3	2104.1	21344.	334.71	919.50

Sample Name: LCSD 580-91205/19-A Acquired: 7/26/2011 19:45:44 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6258**	**3.961**	**4.196**	**5.410**	**4.179**	**.10509**
Stddev	.0120	.259	.018	.037	.015	.00268
%RSD	1.922	6.547	.4289	.6893	.3479	2.5542
#1	.6345	3.756	4.176	5.450	4.163	.10817
#2	.6309	4.252	4.205	5.402	4.191	.10323
#3	.6121	3.874	4.209	5.377	4.184	.10388

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**20.78**	**.1055**	**1.020**	**.4222**	**.5142**	**20.48**
Stddev	.47	.0006	.004	.0006	.0030	.24
%RSD	2.264	.6081	.4018	.1361	.5799	1.193
#1	21.22	.1047	1.015	.4216	.5121	20.76
#2	20.83	.1058	1.022	.4223	.5176	20.34
#3	20.28	.1058	1.022	.4227	.5129	20.34

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**20.85**	**1.058**	**5.100**	**20.80**	**1.036**	**20.30**
Stddev	.08	.004	.021	.18	.004	.09
%RSD	.3869	.4274	.4022	.8797	.3677	.4624
#1	20.81	1.057	5.076	21.01	1.032	20.20
#2	20.94	1.064	5.115	20.68	1.036	20.39
#3	20.79	1.055	5.108	20.70	1.039	20.31

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**1.017**	**3.097**	**4.147**	**-.0872**	**5.304**	**-.0028**
Stddev	.006	.025	.019	.2619	.019	.0002
%RSD	.6124	.8142	.4625	300.4	.3557	8.688
#1	1.010	3.068	4.126	-.3708	5.287	-.0030
#2	1.020	3.107	4.153	-.0361	5.324	-.0027
#3	1.021	3.116	4.163	.1454	5.301	-.0025

Sample Name: LCSD 580-91205/19-A Acquired: 7/26/2011 19:45:44 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**5.159**	**4.123**	**1.039**	**1.037**
Stddev	.023	.022	.004	.005
%RSD	.4483	.5321	.4157	.4939
#1	5.151	4.098	1.038	1.031
#2	5.185	4.137	1.044	1.041
#3	5.140	4.134	1.036	1.040

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2107.9**	**21344.**	**329.20**	**892.44**
Stddev	4.6	69.	6.41	9.14
%RSD	.21799	.32446	1.9470	1.0240
#1	2111.2	21380.	324.44	883.80
#2	2102.6	21264.	326.67	891.52
#3	2109.8	21387.	336.49	902.01

Sample Name: LCSSRM 580-91205/20- Acquired: 7/26/2011 19:51:54 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6276**	**4.210**	**4.225**	**5.327**	**4.198**	**.10751**
Stddev	.0061	.153	.005	.047	.006	.00400
%RSD	.9800	3.644	.1283	.8723	.1441	3.7191
#1	.6222	4.300	4.221	5.303	4.191	.10291
#2	.6343	4.297	4.223	5.380	4.202	.11018
#3	.6262	4.033	4.231	5.296	4.202	.10943

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**20.79**	**.1063**	**1.029**	**.4225**	**.5217**	**20.34**
Stddev	.34	.0003	.003	.0011	.0017	.12
%RSD	1.644	.2723	.2599	.2711	.3334	.5935
#1	20.40	.1060	1.026	.4214	.5197	20.28
#2	21.05	.1064	1.030	.4237	.5222	20.47
#3	20.91	.1066	1.032	.4224	.5231	20.25

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**21.25**	**1.075**	**5.132**	**20.71**	**1.045**	**20.47**
Stddev	.07	.003	.013	.25	.003	.04
%RSD	.3511	.2452	.2549	1.222	.2416	.1927
#1	21.16	1.072	5.121	20.49	1.042	20.45
#2	21.30	1.077	5.128	20.98	1.044	20.45
#3	21.28	1.076	5.146	20.65	1.047	20.52

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**1.029**	**3.127**	**4.207**	**.0779**	**5.324**	**-.0035**
Stddev	.002	.012	.006	.2999	.019	.0001
%RSD	.1834	.3663	.1460	384.9	.3555	2.820
#1	1.030	3.115	4.201	-.2670	5.314	-.0034
#2	1.027	3.127	4.208	.2776	5.346	-.0035
#3	1.030	3.138	4.213	.2232	5.312	-.0035

Sample Name: LCSSRM 580-91205/20- Acquired: 7/26/2011 19:51:54 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**5.222**	**4.168**	**1.054**	**1.043**
Stddev	.009	.012	.002	.003
%RSD	.1725	.2951	.2191	.2350
#1	5.211	4.165	1.052	1.041
#2	5.226	4.157	1.056	1.043
#3	5.228	4.181	1.055	1.045
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2085.2**	**21140.**	**330.06**	**898.63**
Stddev	8.7	91.	4.03	9.81
%RSD	.41887	.42918	1.2196	1.0918
#1	2095.1	21245.	334.05	906.84
#2	2081.7	21092.	326.00	887.77
#3	2078.7	21084.	330.13	901.29

Sample Name: 580-27370-E-1-A SD Acquired: 7/26/2011 19:58:04 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	-.0008	-.2467	.0003	.0182	.0101	.00002
Stddev	.0003	.2166	.0012	.0010	.0002	.00206
%RSD	37.57	87.79	411.8	5.481	2.213	9087.7
#1	-.0005	-.4863	-.0007	.0193	.0100	.00146
#2	-.0009	-.1892	-.0001	.0182	.0103	-.00234
#3	-.0011	-.0647	.0017	.0173	.0099	.00095

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	7.795	-.0006	-.0001	-.0006	.0002	.4732
Stddev	.042	.0000	.0002	.0002	.0003	.0707
%RSD	.5338	4.044	371.7	33.40	183.7	14.95
#1	7.792	-.0006	-.0002	-.0009	.0005	.3979
#2	7.755	-.0006	-.0001	-.0004	.0000	.4833
#3	7.838	-.0005	.0002	-.0006	.0000	.5382

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	1.671	.0007	.0037	5.546	.0002	.0313
Stddev	.010	.0002	.0004	.100	.0006	.0008
%RSD	.5912	26.56	10.28	1.796	355.5	2.476
#1	1.676	.0009	.0035	5.431	.0008	.0305
#2	1.678	.0008	.0041	5.596	-.0001	.0315
#3	1.660	.0005	.0034	5.610	-.0003	.0320

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	-.0021	-.0012	-.0023	3.159	.0016	.0681
Stddev	.0004	.0007	.0009	.213	.0004	.0006
%RSD	18.15	57.30	41.41	6.740	25.14	.8983
#1	-.0017	-.0018	-.0033	3.278	.0011	.0676
#2	-.0022	-.0004	-.0014	3.287	.0018	.0680
#3	-.0024	-.0014	-.0022	2.914	.0018	.0688

Sample Name: 580-27370-E-1-A SD Acquired: 7/26/2011 19:58:04 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0020**	**.0003**	**.0010**	**.0005**
Stddev	.0007	.0003	.0004	.0000
%RSD	37.09	115.2	36.51	9.273
#1	.0027	-.0001	.0012	.0004
#2	.0019	.0004	.0012	.0004
#3	.0013	.0004	.0006	.0005
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2277.5**	**21468.**	**331.80**	**906.12**
Stddev	7.5	45.	1.40	7.00
%RSD	.32973	.21093	.42203	.77289
#1	2271.5	21430.	330.57	912.06
#2	2275.2	21455.	333.32	907.89
#3	2285.9	21518.	331.50	898.40

Sample Name: 580-27370-E-1-B DU Acquired: 7/26/2011 20:11:13 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	-.0010	-.1145	.0001	.0657	.0467	-.00063
Stddev	.0002	.1530	.0020	.0013	.0001	.00095
%RSD	23.12	133.6	2933.	1.969	.2602	151.87
#1	-.0012	-.0950	.0016	.0659	.0468	-.00020
#2	-.0008	-.2763	-.0022	.0643	.0466	-.00171
#3	-.0010	.0278	.0007	.0668	.0467	.00004

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	40.40	-.0005	-.0002	-.0005	.0004	2.641
Stddev	.43	.0001	.0002	.0002	.0006	.094
%RSD	1.063	22.13	91.53	32.20	161.4	3.571
#1	40.59	-.0004	-.0001	-.0004	.0005	2.606
#2	40.70	-.0006	-.0004	-.0003	-.0003	2.748
#3	39.90	-.0004	-.0001	-.0006	.0009	2.569

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	8.578	.0007	.0035	28.65	.0009	.1447
Stddev	.013	.0000	.0001	.39	.0002	.0003
%RSD	.1491	2.589	2.387	1.351	28.08	.2261
#1	8.572	.0007	.0034	28.79	.0010	.1443
#2	8.569	.0007	.0035	28.21	.0010	.1448
#3	8.592	.0007	.0034	28.94	.0006	.1449

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	-.0019	-.0034	-.0036	17.41	-.0011	.3634
Stddev	.0003	.0024	.0014	.17	.0004	.0018
%RSD	13.27	70.72	38.09	.9585	33.27	.5072
#1	-.0019	-.0006	-.0047	17.22	-.0009	.3635
#2	-.0022	-.0049	-.0021	17.53	-.0009	.3615
#3	-.0017	-.0047	-.0042	17.47	-.0015	.3652

Sample Name: 580-27370-E-1-B DU Acquired: 7/26/2011 20:11:13 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	-.0010	-.0029	.0041	.0021
Stddev	.0000	.0041	.0001	.0000
%RSD	3.957	139.1	3.163	1.375
#1	-.0010	.0018	.0041	.0021
#2	-.0010	-.0049	.0040	.0020
#3	-.0010	-.0056	.0043	.0021
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2197.7	21585.	338.59	922.19
Stddev	2.6	15.	1.79	10.73
%RSD	.11610	.07120	.52820	1.1641
#1	2194.8	21579.	339.37	924.00
#2	2199.2	21603.	336.54	931.90
#3	2199.2	21574.	339.85	910.66

Sample Name: 580-27370-E-1-C MS Acquired: 7/26/2011 20:17:48 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6279**	**4.208**	**4.288**	**5.414**	**4.229**	**.10708**
Stddev	.0106	.280	.020	.078	.016	.00133
%RSD	1.686	6.662	.4596	1.443	.3800	1.2448
#1	.6356	4.100	4.265	5.481	4.211	.10623
#2	.6323	3.998	4.299	5.432	4.235	.10861
#3	.6159	4.526	4.300	5.328	4.241	.10638

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**62.79**	**.1051**	**1.039**	**.4291**	**.5243**	**22.92**
Stddev	.55	.0006	.003	.0008	.0017	.48
%RSD	.8714	.5716	.2658	.1805	.3232	2.084
#1	63.13	.1044	1.036	.4283	.5231	23.26
#2	63.08	.1052	1.039	.4299	.5263	23.13
#3	62.16	.1056	1.041	.4290	.5236	22.38

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**29.53**	**1.061**	**5.074**	**49.67**	**1.054**	**20.59**
Stddev	.12	.003	.033	.64	.002	.13
%RSD	.3992	.2637	.6574	1.297	.1830	.6172
#1	29.40	1.057	5.038	50.25	1.052	20.45
#2	29.57	1.062	5.079	49.78	1.054	20.60
#3	29.63	1.063	5.104	48.98	1.056	20.71

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**1.044**	**3.148**	**4.202**	**18.18**	**5.375**	**.3756**
Stddev	.002	.009	.015	.39	.008	.0004
%RSD	.2265	.2931	.3616	2.140	.1446	.1099
#1	1.041	3.137	4.187	18.14	5.368	.3752
#2	1.045	3.150	4.202	18.59	5.383	.3756
#3	1.045	3.155	4.218	17.82	5.375	.3760

Sample Name: 580-27370-E-1-C MS Acquired: 7/26/2011 20:17:48 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**5.147**	**4.137**	**1.049**	**1.049**
Stddev	.020	.026	.004	.005
%RSD	.3849	.6371	.3716	.4608
#1	5.125	4.109	1.044	1.044
#2	5.151	4.140	1.050	1.051
#3	5.164	4.162	1.051	1.053
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2041.4**	**21301.**	**334.17**	**914.51**
Stddev	6.0	104.	4.49	12.02
%RSD	.29338	.48847	1.3442	1.3148
#1	2048.3	21420.	331.26	904.98
#2	2037.1	21256.	331.91	910.53
#3	2039.0	21226.	339.35	928.02

Sample Name: 580-27370-E-1-D MSD Acquired: 7/26/2011 20:23:57 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6128**	**4.107**	**4.237**	**5.327**	**4.210**	**.10627**
Stddev	.0014	.185	.016	.029	.009	.00058
%RSD	.2328	4.499	.3709	.5387	.2255	.54739
#1	.6114	4.128	4.221	5.331	4.200	.10572
#2	.6128	4.280	4.252	5.354	4.215	.10688
#3	.6143	3.912	4.238	5.297	4.217	.10622

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**61.15**	**.1045**	**1.025**	**.4174**	**.5207**	**23.13**
Stddev	.52	.0003	.003	.0011	.0017	.23
%RSD	.8501	.3290	.3291	.2587	.3301	.9734
#1	60.59	.1041	1.021	.4163	.5222	22.87
#2	61.62	.1048	1.027	.4184	.5188	23.29
#3	61.24	.1046	1.025	.4176	.5211	23.23

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**29.45**	**1.054**	**5.132**	**49.56**	**1.038**	**20.48**
Stddev	.06	.002	.014	.06	.002	.08
%RSD	.1965	.1389	.2678	.1142	.2092	.3932
#1	29.42	1.053	5.117	49.58	1.036	20.39
#2	29.41	1.053	5.141	49.59	1.040	20.55
#3	29.51	1.055	5.139	49.49	1.038	20.50

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**1.023**	**3.129**	**4.167**	**18.15**	**5.276**	**.3752**
Stddev	.005	.008	.016	.51	.016	.0029
%RSD	.4580	.2510	.3810	2.796	.2943	.7766
#1	1.019	3.122	4.150	17.64	5.258	.3719
#2	1.028	3.137	4.181	18.16	5.286	.3773
#3	1.024	3.129	4.171	18.65	5.283	.3765

Sample Name: 580-27370-E-1-D MSD Acquired: 7/26/2011 20:23:57 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**5.235**	**4.145**	**1.056**	**1.044**
Stddev	.012	.017	.002	.002
%RSD	.2316	.4184	.2108	.1737
#1	5.232	4.131	1.054	1.042
#2	5.224	4.164	1.055	1.045
#3	5.248	4.140	1.058	1.044

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2021.0**	**20818.**	**331.72**	**903.66**
Stddev	3.5	46.	1.26	3.53
%RSD	.17111	.22226	.37875	.39057
#1	2024.8	20860.	333.10	902.25
#2	2020.0	20827.	331.40	901.05
#3	2018.1	20769.	330.65	907.68

Sample Name: 580-27370-E-1-A PDS Acquired: 7/26/2011 20:30:07 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6193**	**3.903**	**4.021**	**5.436**	**3.994**	**.10958**
Stddev	.0471	.383	.024	.476	.022	.01063
%RSD	7.608	9.808	.5979	8.758	.5498	9.6961
#1	.6034	3.537	3.994	5.223	3.970	.10303
#2	.6723	4.301	4.028	5.982	4.001	.12184
#3	.5822	3.873	4.040	5.104	4.012	.10387

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**58.16**	**.0999**	**.9775**	**.3974**	**.4903**	**23.30**
Stddev	5.60	.0007	.0033	.0011	.0033	2.19
%RSD	9.635	.6894	.3367	.2807	.6756	9.407
#1	55.92	.0991	.9738	.3961	.4878	22.36
#2	64.53	.1001	.9785	.3981	.4890	25.81
#3	54.01	.1004	.9802	.3979	.4940	21.74

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**27.47**	**.9999**	**4.904**	**47.75**	**.9911**	**19.67**
Stddev	.12	.0047	.041	4.75	.0017	.16
%RSD	.4512	.4657	.8313	9.939	.1717	.7977
#1	27.34	.9956	4.862	45.27	.9892	19.50
#2	27.47	.9992	4.909	53.22	.9921	19.71
#3	27.59	1.005	4.943	44.75	.9921	19.80

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.9803**	**2.960**	**3.998**	**16.86**	**5.079**	**.3221**
Stddev	.0027	.018	.042	2.04	.017	.0064
%RSD	.2803	.6169	1.060	12.10	.3345	1.981
#1	.9776	2.940	3.956	16.13	5.059	.3153
#2	.9803	2.968	3.997	19.17	5.090	.3280
#3	.9831	2.974	4.041	15.29	5.087	.3231

Sample Name: 580-27370-E-1-A PDS Acquired: 7/26/2011 20:30:07 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	Tl1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**4.997**	**3.958**	**1.001**	**.9944**
Stddev	.025	.021	.005	.0055
%RSD	.5053	.5394	.4894	.5490
#1	4.973	3.935	.9963	.9883
#2	4.993	3.962	1.001	.9960
#3	5.023	3.978	1.006	.9988
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2094.7**	**21606.**	**326.33**	**884.86**
Stddev	7.3	137.	25.46	72.62
%RSD	.34690	.63469	7.8014	8.2066
#1	2103.0	21751.	334.94	917.72
#2	2090.4	21590.	297.68	801.63
#3	2090.6	21478.	346.37	935.25

Sample Name: CCV Acquired: 7/26/2011 20:36:16 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.9812**	**10.19**	**4.849**	**2.373**	**2.470**	**.10140**
Stddev	.0080	.27	.039	.001	.020	.00019
%RSD	.8115	2.693	.8079	.0464	.8229	.19062
#1	.9787	10.40	4.888	2.374	2.490	.10125
#2	.9901	10.30	4.847	2.372	2.470	.10134
#3	.9747	9.879	4.810	2.373	2.450	.10162
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**20.16**	**.4936**	**.4719**	**.4925**	**.4937**	**19.58**
Stddev	.13	.0043	.0042	.0036	.0067	.23
%RSD	.6645	.8669	.8904	.7245	1.361	1.177
#1	20.31	.4979	.4766	.4963	.4988	19.32
#2	20.12	.4936	.4705	.4920	.4961	19.76
#3	20.05	.4893	.4686	.4892	.4861	19.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 20:36:16 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**20.01**	**.5026**	**.4867**	**15.02**	**.4720**	**9.491**
Stddev	.19	.0059	.0040	.05	.0041	.091
%RSD	.9742	1.176	.8187	.3039	.8626	.9615
#1	20.14	.5066	.4904	14.98	.4760	9.581
#2	20.10	.5053	.4874	15.07	.4721	9.493
#3	19.78	.4958	.4825	15.01	.4679	9.399
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**4.717**	**2.405**	**4.836**	**10.11**	**2.504**	**5.076**
Stddev	.043	.023	.042	.33	.022	.020
%RSD	.9094	.9635	.8604	3.256	.8716	.3927
#1	4.765	2.427	4.879	9.774	2.526	5.091
#2	4.704	2.407	4.832	10.43	2.503	5.084
#3	4.682	2.381	4.796	10.12	2.482	5.053
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 20:36:16 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.4993**	**2.395**	**.4976**	**.4860**
Stddev	.0052	.015	.0061	.0046
%RSD	1.040	.6124	1.218	.9430
#1	.5029	2.411	.5006	.4909
#2	.5018	2.383	.5015	.4855
#3	.4934	2.391	.4906	.4818
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2153.3**	**21399.**	**330.76**	**904.70**
Stddev	13.1	134.	1.95	2.45
%RSD	.60994	.62457	.58907	.27073
#1	2140.4	21293.	332.94	907.50
#2	2152.8	21355.	329.18	902.95
#3	2166.6	21550.	330.17	903.66

Sample Name: CCB Acquired: 7/26/2011 20:42:26 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0004**	**-.1791**	**.0008**	**.0036**	**.0001**	**.00012**
Stddev	.0003	.1463	.0011	.0008	.0001	.00139
%RSD	94.70	81.68	138.9	22.50	89.16	1196.0
#1	-.0005	-.2180	.0019	.0031	.0003	-.00020
#2	.0000	-.0173	-.0003	.0045	.0000	-.00109
#3	-.0006	-.3019	.0008	.0031	.0001	.00164
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**-.1364**	**-.0005**	**-.0002**	**-.0005**	**-.0003**	**-.1162**
Stddev	.0138	.0000	.0001	.0002	.0003	.1463
%RSD	10.08	4.763	42.42	38.16	109.1	125.9
#1	-.1277	-.0004	-.0003	-.0006	.0001	-.2406
#2	-.1523	-.0005	-.0003	-.0003	-.0004	-.1531
#3	-.1294	-.0005	-.0001	-.0006	-.0005	.0450
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 20:42:26 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0600**	**.0001**	**.0011**	**-.0186**	**-.0004**	**.0023**
Stddev	.0023	.0001	.0002	.0192	.0002	.0025
%RSD	3.787	44.18	15.90	103.6	47.28	109.0
#1	-.0589	.0002	.0013	-.0406	-.0007	.0052
#2	-.0585	.0002	.0011	-.0052	-.0004	.0004
#3	-.0626	.0001	.0009	-.0099	-.0003	.0013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**-.0018**	**-.0009**	**-.0020**	**-.1067**	**.0004**	**-.0016**
Stddev	.0012	.0015	.0005	.1825	.0006	.0003
%RSD	67.13	163.8	26.97	171.1	138.6	20.86
#1	-.0006	-.0003	-.0018	-.1987	-.0001	-.0014
#2	-.0019	-.0027	-.0026	.1036	.0004	-.0015
#3	-.0029	.0001	-.0016	-.2248	.0010	-.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 7/26/2011 20:42:26 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	.0005	.0000	.0001	-.0001
Stddev	.0000	.0008	.0003	.0001
%RSD	7.230	6770.	589.5	93.07
#1	.0004	.0001	.0000	-.0002
#2	.0005	-.0008	.0004	.0000
#3	.0005	.0008	-.0002	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2321.5	21475.	335.02	912.24
Stddev	7.0	45.	4.35	1.40
%RSD	.30040	.20821	1.2993	.15341
#1	2322.4	21499.	336.65	913.69
#2	2314.2	21423.	330.09	910.90
#3	2328.0	21502.	338.32	912.13

Sample Name: 580-27377-E-1-A Acquired: 7/26/2011 20:49:03 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0003**	**-.1092**	**.0007**	**.0630**	**.0790**	**-.00067**
Stddev	.0007	.0147	.0019	.0007	.0003	.00152
%RSD	212.5	13.42	284.5	1.136	.3901	226.53
#1	-.0006	-.1253	.0014	.0638	.0793	-.00213
#2	.0005	-.1056	.0021	.0626	.0788	.00091
#3	-.0009	-.0967	-.0015	.0627	.0787	-.00079

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**58.30**	**-.0004**	**-.0001**	**-.0008**	**.0008**	**3.522**
Stddev	.76	.0001	.0001	.0001	.0003	.085
%RSD	1.309	17.52	121.6	10.57	30.41	2.408
#1	57.51	-.0005	-.0001	-.0007	.0008	3.457
#2	59.03	-.0005	.0000	-.0009	.0006	3.618
#3	58.36	-.0003	.0000	-.0009	.0011	3.491

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**11.51**	**.0500**	**.0058**	**34.48**	**.0009**	**.1501**
Stddev	.01	.0001	.0001	.21	.0007	.0017
%RSD	.0888	.1941	2.164	.6097	76.04	1.145
#1	11.52	.0500	.0056	34.37	.0016	.1495
#2	11.50	.0499	.0059	34.72	.0002	.1521
#3	11.51	.0501	.0058	34.35	.0010	.1488

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**.0002**	**-.0016**	**-.0048**	**19.16**	**.0001**	**.4763**
Stddev	.0017	.0005	.0020	.09	.0003	.0029
%RSD	754.0	30.07	42.58	.4741	549.2	.6113
#1	.0016	-.0016	-.0070	19.11	.0001	.4739
#2	-.0017	-.0020	-.0031	19.26	-.0003	.4756
#3	.0007	-.0011	-.0042	19.10	.0003	.4795

Sample Name: 580-27377-E-1-A Acquired: 7/26/2011 20:49:03 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	.0005	-.0002	.0039	.9123
Stddev	.0000	.0011	.0001	.0006
%RSD	8.384	503.6	3.333	.0621
#1	.0005	-.0005	.0040	.9117
#2	.0005	-.0011	.0039	.9129
#3	.0005	.0010	.0037	.9124

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2190.8	21336.	326.58	894.94
Stddev	.5	8.	2.45	7.16
%RSD	.02355	.03977	.74945	.80011
#1	2190.6	21329.	328.12	895.56
#2	2191.4	21333.	323.75	887.48
#3	2190.4	21345.	327.86	901.76

Sample Name: 580-27463-D-1-C Acquired: 7/26/2011 20:55:35 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	-.0002	.3660	.0030	.0067	.2378	-.00019
Stddev	.0006	.0848	.0011	.0004	.0007	.00164
%RSD	244.1	23.16	35.86	6.491	.2769	870.52
#1	-.0007	.3891	.0024	.0069	.2385	.00171
#2	.0004	.2721	.0024	.0062	.2373	-.00120
#3	-.0004	.4369	.0043	.0069	.2374	-.00108

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	594.7	-.0005	.0000	-.0004	.0235	28.92
Stddev	13.7	.0001	.0000	.0002	.0001	1.11
%RSD	2.307	27.27	209.7	49.71	.3726	3.848
#1	579.5	-.0005	.0000	-.0006	.0235	27.68
#2	598.5	-.0004	.0000	-.0003	.0236	29.24
#3	606.2	-.0007	.0000	-.0002	.0235	29.83

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	.1602	.0015	.0314	16.14	.0028	.1049
Stddev	.0036	.0001	.0003	.50	.0003	.0008
%RSD	2.223	6.454	.7970	3.121	11.59	.7978
#1	.1624	.0015	.0316	15.58	.0026	.1046
#2	.1622	.0015	.0311	16.30	.0026	.1042
#3	.1561	.0014	.0314	16.55	.0032	.1058

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	.4606	-.0014	-.0057	2.258	-.0011	2.257
Stddev	.0008	.0019	.0011	.264	.0009	.050
%RSD	.1692	132.4	20.05	11.67	76.73	2.226
#1	.4599	-.0013	-.0058	2.056	-.0011	2.213
#2	.4605	.0004	-.0045	2.556	-.0020	2.246
#3	.4614	-.0034	-.0067	2.163	-.0003	2.312

Sample Name: 580-27463-D-1-C Acquired: 7/26/2011 20:55:35 Type: Unk
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	-.0029	-.0004	.0129	.0055
Stddev	.0002	.0005	.0001	.0002
%RSD	7.212	123.0	1.047	3.010
#1	-.0026	-.0009	.0130	.0057
#2	-.0030	.0001	.0130	.0054
#3	-.0030	-.0005	.0128	.0054
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1966.9	20232.	339.92	938.70
Stddev	4.7	58.	3.38	16.43
%RSD	.23864	.28721	.99413	1.7509
#1	1966.0	20239.	343.32	957.17
#2	1972.0	20286.	336.56	925.69
#3	1962.7	20171.	339.89	933.24

Sample Name: CCV Acquired: 7/26/2011 21:02:09 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba2335	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	233.527 {445}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.9878**	**10.09**	**4.833**	**2.389**	**2.458**	**.10607**
Stddev	.0105	.23	.018	.043	.005	.00188
%RSD	1.065	2.230	.3792	1.818	.1918	1.7759
#1	.9989	9.858	4.847	2.434	2.461	.10630
#2	.9864	10.10	4.839	2.386	2.461	.10783
#3	.9780	10.31	4.812	2.347	2.453	.10408
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2055	Cu3273	K_7664
Line	315.887 {107}	226.502 {449}	228.616 {447}	205.552 {464}	327.396 {103}	766.490 { 44}
Units	mg/l	mg/l	mg/l	mg/l	ppm	mg/l
Avg	**20.48**	**.4905**	**.4692**	**.4903**	**.4907**	**19.90**
Stddev	.26	.0018	.0026	.0012	.0006	.25
%RSD	1.249	.3702	.5567	.2398	.1211	1.266
#1	20.75	.4922	.4717	.4914	.4913	20.16
#2	20.45	.4908	.4693	.4906	.4908	19.88
#3	20.24	.4886	.4665	.4891	.4901	19.66
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 21:02:09 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Na5895	Ni2316	P_1782
Line	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}	178.284 {489}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**19.71**	**.4963**	**.4805**	**15.05**	**.4699**	**9.447**
Stddev	.05	.0010	.0012	.19	.0017	.032
%RSD	.2360	.2086	.2573	1.256	.3670	.3329
#1	19.76	.4972	.4811	15.21	.4711	9.475
#2	19.70	.4966	.4813	15.10	.4707	9.452
#3	19.67	.4952	.4790	14.84	.4679	9.413
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Si2516	Sn1899	Sr4077
Line	220.353 {453}	206.833 {463}	196.090 {472}	251.611 {134}	189.989 {477}	407.771 { 83}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	ppm
Avg	**4.691**	**2.403**	**4.824**	**10.22**	**2.483**	**5.057**
Stddev	.028	.008	.026	.38	.009	.021
%RSD	.5890	.3464	.5436	3.720	.3403	.4069
#1	4.719	2.411	4.849	10.12	2.493	5.033
#2	4.689	2.404	4.826	9.893	2.480	5.070
#3	4.664	2.395	4.796	10.63	2.477	5.068
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 7/26/2011 21:02:09 Type: QC
Method: 6010-2007July2011 (v7) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ti3372	TI1908	V_2924	Zn2138
Line	337.280 {100}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.4920**	**2.378**	**.4926**	**.4843**
Stddev	.0011	.017	.0006	.0020
%RSD	.2282	.7327	.1279	.4153
#1	.4927	2.390	.4929	.4864
#2	.4927	2.387	.4930	.4840
#3	.4907	2.358	.4918	.4825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2188.6**	**21756.**	**332.92**	**908.95**
Stddev	5.6	15.	2.96	14.25
%RSD	.25729	.06951	.88985	1.5674
#1	2182.1	21756.	329.63	893.88
#2	2191.6	21771.	333.77	910.78
#3	2192.1	21740.	335.37	922.20

Step	Mass	Element	r	b(blank)	DL	BEC	Unit
1	6	Li	0.0000	--- ---	---	ug/l	
1	7	Li	0.0000	--- ---	---	ug/l	
1	9	Be	1.0000	1.479E-03	1.392E-02	7.066E-03	ug/l
1	23	Na	0.9998	2.563 3.013	49.94	ug/l	
1	24	Mg	0.9999	1.166E-02	1.062E-01	4.166E-01	ug/l
1	27	Al	1.0000	1.283E-02	2.954E-01	8.542E-01	ug/l
1	31	P	1.0000	2.268E-02	5.692 19.32	ug/l	
1	39	K	1.0000	3.907 11.61	132.4	ug/l	
1	43	Ca	1.0000	3.613E-04	7.389E-01	3.963 ug/l	
1	45	Sc	0.0000	--- ---	---	ug/l	
1	47	Ti	1.0000	2.787E-04	5.567E-02	3.294E-02	ug/l
1	51	V	1.0000	1.669E-02	1.786E-02	1.882E-01	ug/l
1	52	Cr	1.0000	1.302E-02	4.988E-02	1.250E-01	ug/l
1	55	Mn	1.0000	1.110E-02	3.014E-02	1.594E-01	ug/l
1	56	Fe	1.0000	2.244E-01	6.101E-02	2.522 ug/l	
1	59	Co	1.0000	1.316E-03	4.805E-03	8.483E-03	ug/l
1	60	Ni	0.9999	2.775E-03	6.439E-02	6.947E-02	ug/l
1	63	Cu	0.9999	6.930E-03	2.304E-02	6.595E-02	ug/l
1	66	Zn	1.0000	5.676E-03	1.432E-01	2.746E-01	ug/l
1	74	Ge	0.0000	--- ---	---	ug/l	
1	75	As	1.0000	1.672E-03	3.147E-02	1.064E-01	ug/l
1	78	Se	1.0000	7.316E-04	2.924E-01	5.338E-01	ug/l
1	88	Sr	1.0000	4.507E-03	1.381E-02	8.262E-02	ug/l
1	95	Mo	1.0000	5.441E-04	3.331E-03	1.808E-02	ug/l
1	103	Rh	0.0000	--- ---	---	ug/l	
1	109	Ag	1.0000	6.826E-04	7.268E-03	7.346E-03	ug/l
1	111	Cd	1.0000	8.928E-05	8.192E-03	5.579E-03	ug/l
1	118	Sn	1.0000	2.692E-03	2.149E-02	7.805E-02	ug/l
1	123	Sb	1.0000	1.256E-03	4.868E-03	3.186E-02	ug/l
1	135	Ba	1.0000	3.752E-04	4.510E-02	3.939E-02	ug/l
1	165	Ho	0.0000	--- ---	---	ug/l	
1	175	Lu	0.0000	--- ---	---	ug/l	
1	200	Hg	1.0000	4.607E-04	1.318E-03	9.694E-03	ug/l
1	205	Tl	1.0000	3.392E-03	3.552E-03	8.873E-03	ug/l
1	208	Pb	1.0000	2.200E-01	2.244E-02	4.211E-01	ug/l
1	209	Bi	0.0000	--- ---	---	ug/l	
1	238	U	1.0000	1.122E-03	2.368E-03	2.113E-03	ug/l

TA Seattle Calibration Blank QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#
Date Acquired: Jul 26 2011 08:11 am Acq. Method: 00He_ALL.M
Sample Name: STD0 Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011
Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Tune # Name
Operator: FCW ICP-MS ID#SEA44 1 c:\icpchem\1\7500\he.u
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C 2 C:\ICPCHEM\1\7500\
Last Cal. Update: Jul 26 2011 03:23 pm 3 C:\ICPCHEM\1\7500\
ISTD Ref File : --- Sample Type: CalBlk

QC&ISTD Elements

Element		Tune	CPS Mean		SD	RSD(%)
6	Li	1	78992.1	P	260.30	0.33
7	Li	1	6228.3	P	251.80	4.04
9	Be	1	2.3	P	1.53	65.49
23	Na	1	73308.4	P	292.50	0.40
24	Mg	1	333.3	P	22.55	6.76
27	Al	1	366.7	P	36.86	10.05
31	P	1	648.4	P	58.59	9.04
39	K	1	111738.7	P	1294.00	1.16
43	Ca	1	10.3	P	0.58	5.59
45	Sc	1	1430574.0	A	25690.00	1.80
47	Ti	1	8.0	P	4.58	57.29
51	V	1	1205.1	P	47.71	3.96
52	Cr	1	940.1	P	122.80	13.06
55	Mn	1	801.7	P	53.47	6.67
56	Fe	1	16198.9	P	240.10	1.48
57	Fe	1		P		
59	Co	1	95.0	P	18.03	18.98
60	Ni	1	200.0	P	60.62	30.31
63	Cu	1	500.0	P	55.00	11.00
66	Zn	1	410.0	P	73.66	17.97
74	Ge	1	3609436.0	A	28280.00	0.78
75	As	1	120.7	P	11.01	9.12
78	Se	1	52.8	P	9.81	18.58
88	Sr	1	538.4	P	37.53	6.97
95	Mo	1	65.0	P	5.00	7.69
99	(Mo)	1		P		
103	Rh	1	5970145.0	A	108000.00	1.81
106	(Cd)	1		P		
108	(Cd)	1		P		
109	Ag	1	81.7	P	27.54	33.72
111	Cd	1	10.7	P	5.33	49.81
118	Sn	1	321.7	P	33.29	10.35
123	Sb	1	150.0	P	8.66	5.77
135	Ba	1	45.0	P	18.03	40.07
165	Ho	1	2661241.0	A	51230.00	1.93
175	Lu	1	2075661.0	A	45350.00	2.18
200	Hg	1	26.0	P	1.00	3.85
205	Tl	1	191.7	P	27.54	14.37
206	Pb	1		P		
207	Pb	1		P		
208	Pb	1	12419.5	P	91.21	0.73
209	Bi	1	2822611.0	A	29400.00	1.04
238	U	1	63.3	P	23.63	37.31

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\072611.B\005CALS.D\005CALS.D#
Date Acquired: Jul 26 2011 08:15 am
Acq. Method: 00He_ALL.M
Sample Name: **STD1**
Vial Number: 1305
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011
Operator: FCW ICP-MS ID#SEA44
Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune # Name
1 ,icpchem\1\7500\he.u
2 C:\ICPCHEM\1\7500\
3 C:\ICPCHEM\1\7500\

QC&ISTD Elements
Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	33.0	P	5.00	15.15
23	Na	45	1	108659.7	P	88.81	0.08
24	Mg	45	1	9143.4	P	59.03	0.65
27	Al	45	1	963.4	P	53.47	5.55
31	P	45	1	975.1	P	62.66	6.43
39	K	45	1	123966.4	P	1268.00	1.02
43	Ca	45	1	42.0	P	8.89	21.16
47	Ti	45	1	30.3	P	4.04	13.32
51	V	74	1	1950.2	P	36.06	1.85
52	Cr	74	1	1856.8	P	59.66	3.21
55	Mn	74	1	1233.4	P	44.82	3.63
56	Fe	74	1	87950.5	P	690.40	0.78
59	Co	74	1	1370.1	P	111.40	8.13
60	Ni	74	1	718.4	P	70.07	9.75
63	Cu	74	1	2153.6	P	107.80	5.01
66	Zn	74	1	935.1	P	112.60	12.04
75	As	74	1	250.0	P	6.93	2.77
78	Se	74	1	64.2	P	5.01	7.80
88	Sr	103	1	1126.7	P	59.66	5.29
95	Mo	103	1	413.3	P	40.72	9.85
109	Ag	103	1	1266.8	P	46.46	3.67
111	Cd	103	1	202.7	P	11.81	5.83
118	Sn	103	1	861.7	P	43.12	5.00
123	Sb	103	1	600.0	P	66.15	11.03
135	Ba	103	1	176.7	P	37.86	21.43
200	Hg	209	1	32.3	P	7.37	22.80
205	Tl	209	1	2428.6	P	84.32	3.47
208	Pb	209	1	16009.7	P	30.43	0.19
238	U	209	1	3113.8	P	118.00	3.79

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	80445	1.53	78990	101.8	30 - 125	
45	Sc	1	1467393	1.35	1431000	102.5	30 - 125	
74	Ge	1	3656509	0.39	3609000	101.3	30 - 125	
103	Rh	1	5939421	0.84	5970000	99.5	30 - 125	
165	Ho	1	2678161	1.11	2661000	100.6	30 - 125	
175	Lu	1	2080924	0.99	2076000	100.2	30 - 125	
209	Bi	1	2837106	0.20	2823000	100.5	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\072611.B\006CALS.D\006CALS.D#

Date Acquired: Jul 26 2011 08:20 am

Acq. Method: 00He_ALL.M

Sample Name: **STD2**

Vial Number: 1304

Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

Last Cal. Update: Jul 26 2011 03:23 pm

ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	icpchem\1\7500\he.u
2	C:\ICPCHEM\1\7500\
3	C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	324.3	P	12.58	3.88
23	Na	45	1	233354.0	P	2814.00	1.21
24	Mg	45	1	89435.2	P	1364.00	1.53
27	Al	45	1	5548.0	P	241.50	4.35
31	P	45	1	4090.7	P	172.00	4.20
39	K	45	1	201105.4	P	894.30	0.44
43	Ca	45	1	284.3	P	15.31	5.38
47	Ti	45	1	256.3	P	27.10	10.57
51	V	74	1	7807.5	P	246.30	3.15
52	Cr	74	1	8671.5	P	252.50	2.91
55	Mn	74	1	5899.9	P	100.20	1.70
56	Fe	74	1	710914.4	P	2088.00	0.29
59	Co	74	1	12094.3	P	36.25	0.30
60	Ni	74	1	3420.5	P	165.40	4.84
63	Cu	74	1	9116.8	P	120.60	1.32
66	Zn	74	1	2085.2	P	132.30	6.34
75	As	74	1	1290.7	P	32.52	2.52
78	Se	74	1	149.0	P	13.33	8.95
88	Sr	103	1	6842.1	P	246.30	3.60
95	Mo	103	1	3523.9	P	37.87	1.07
109	Ag	103	1	11470.5	P	108.30	0.94
111	Cd	103	1	1868.5	P	98.23	5.26
118	Sn	103	1	4299.2	P	148.80	3.46
123	Sb	103	1	4626.0	P	90.18	1.95
135	Ba	103	1	1146.7	P	122.90	10.72
200	Hg	209	1	156.7	P	7.23	4.62
205	Tl	209	1	22425.4	P	450.80	2.01
208	Pb	209	1	43107.2	P	1012.00	2.35
238	U	209	1	29777.4	P	112.10	0.38

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	78635	1.26	78990	99.6	30 - 125	
45	Sc	1	1463941	1.41	1431000	102.3	30 - 125	
74	Ge	1	3612961	1.31	3609000	100.1	30 - 125	
103	Rh	1	5943248	0.79	5970000	99.6	30 - 125	
165	Ho	1	2697421	1.08	2661000	101.4	30 - 125	
175	Lu	1	2084630	1.48	2076000	100.4	30 - 125	
209	Bi	1	2840236	1.89	2823000	100.6	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\072611.B\007CALS.D\007CALS.D#

Date Acquired: Jul 26 2011 08:24 am — Acq. Method: 00He_ALL.M

Sample Name: **STD3** — Vial Number: 1303

Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011 — Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

Last Cal. Update: Jul 26 2011 03:23 pm

ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	icpchem\1\7500\he.u
2	C:\ICPCHEM\1\7500\
3	C:\ICPCHEM\1\7500\

QC&ISTD Elements — Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	3175.1	P	60.49	1.91
23	Na	45	1	1676013.0	A	7356.00	0.44
24	Mg	45	1	873777.0	A	3397.00	0.39
27	Al	45	1	45584.4	P	188.90	0.41
31	P	45	1	34976.4	P	365.40	1.04
39	K	45	1	1010242.0	A	8959.00	0.89
43	Ca	45	1	2781.0	P	32.72	1.18
47	Ti	45	1	2483.3	P	89.98	3.62
51	V	74	1	66881.2	P	635.10	0.95
52	Cr	74	1	78623.3	P	168.60	0.21
55	Mn	74	1	53305.6	P	301.90	0.57
56	Fe	74	1	6595247.0	A	14750.00	0.22
59	Co	74	1	117309.9	P	1364.00	1.16
60	Ni	74	1	30973.3	P	570.80	1.84
63	Cu	74	1	82601.2	P	832.30	1.01
66	Zn	74	1	16030.5	P	589.70	3.68
75	As	74	1	11863.0	P	84.95	0.72
78	Se	74	1	1053.7	P	19.50	1.85
88	Sr	103	1	64122.0	P	587.00	0.92
95	Mo	103	1	35034.8	P	171.50	0.49
109	Ag	103	1	112200.5	P	583.00	0.52
111	Cd	103	1	19231.5	P	208.40	1.08
118	Sn	103	1	40235.4	P	475.50	1.18
123	Sb	103	1	45816.3	P	199.40	0.44
135	Ba	103	1	11427.3	P	170.20	1.49
200	Hg	209	1	1346.4	P	18.18	1.35
205	Tl	209	1	214732.2	P	4994.00	2.33
208	Pb	209	1	313240.4	P	710.80	0.23
238	U	209	1	299181.3	P	1515.00	0.51

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	77271	1.09	78990	97.8	30 - 125	
45	Sc	1	1475452	2.07	1431000	103.1	30 - 125	
74	Ge	1	3630298	0.47	3609000	100.6	30 - 125	
103	Rh	1	5836068	1.39	5970000	97.8	30 - 125	
165	Ho	1	2641711	0.93	2661000	99.3	30 - 125	
175	Lu	1	2072839	1.82	2076000	99.8	30 - 125	
209	Bi	1	2818534	3.24	2823000	99.8	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\072611.B\008CALS.D\008CALS.D#

Date Acquired: Jul 26 2011 08:28 am — Acq. Method: 00He_ALL.M

Sample Name: **STD4** — Vial Number: 1302

Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011 — Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

Last Cal. Update: Jul 26 2011 03:23 pm

ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	icpchem\1\7500\he.u
2	C:\ICPCHEM\1\7500\
3	C:\ICPCHEM\1\7500\

QC&ISTD Elements — Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	15939.4	P	28.60	0.18
23	Na	45	1	7819767.0	A	56550.00	0.72
24	Mg	45	1	4164869.0	A	60690.00	1.46
27	Al	45	1	222789.4	P	417.30	0.19
31	P	45	1	174226.1	P	532.70	0.31
39	K	45	1	4488167.0	A	52870.00	1.18
43	Ca	45	1	13483.1	P	142.40	1.06
47	Ti	45	1	12501.8	P	153.30	1.23
51	V	74	1	329062.4	P	2130.00	0.65
52	Cr	74	1	383344.4	P	1032.00	0.27
55	Mn	74	1	258576.6	P	899.10	0.35
56	Fe	74	1	32666890.0	A	447000.00	1.37
59	Co	74	1	570766.1	P	1950.00	0.34
60	Ni	74	1	149291.0	P	985.10	0.66
63	Cu	74	1	393891.9	P	1963.00	0.50
66	Zn	74	1	76674.2	P	470.20	0.61
75	As	74	1	57732.3	P	605.20	1.05
78	Se	74	1	5130.2	P	62.77	1.22
88	Sr	103	1	312903.2	P	2717.00	0.87
95	Mo	103	1	173759.0	P	1307.00	0.75
109	Ag	103	1	542452.8	P	1817.00	0.33
111	Cd	103	1	92789.4	P	1148.00	1.24
118	Sn	103	1	198806.7	P	2669.00	1.34
123	Sb	103	1	226417.9	P	2414.00	1.07
135	Ba	103	1	55309.7	P	344.60	0.62
200	Hg	209	1	6568.5	P	12.91	0.20
205	Tl	209	1	1055666.0	A	37530.00	3.56
208	Pb	209	1	1459624.0	P	12150.00	0.83
238	U	209	1	1477127.0	A	19580.00	1.33

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	76120	1.03	78990	96.4	30 - 125	
45	Sc	1	1464973	2.30	1431000	102.4	30 - 125	
74	Ge	1	3655310	0.70	3609000	101.3	30 - 125	
103	Rh	1	5783149	1.27	5970000	96.9	30 - 125	
165	Ho	1	2636843	0.93	2661000	99.1	30 - 125	
175	Lu	1	2085469	0.81	2076000	100.5	30 - 125	
209	Bi	1	2745292	0.59	2823000	97.2	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\072611.B\009CALS.D\009CALS.D#

Date Acquired: Jul 26 2011 08:33 am

Acq. Method: 00He_ALL.M

Sample Name: **STD5**

Vial Number: 1301

Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Jul 26 2011 03:23 pm

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	31462.2	P	317.80	1.01
23	Na	45	1	14978160.0	A	195200.00	1.30
24	Mg	45	1	8162103.0	A	95670.00	1.17
27	Al	45	1	438913.0	P	3887.00	0.89
31	P	45	1	343584.2	P	4525.00	1.32
39	K	45	1	8726785.0	A	132800.00	1.52
43	Ca	45	1	26642.4	P	229.70	0.86
47	Ti	45	1	24728.3	P	452.80	1.83
51	V	74	1	645504.7	P	3305.00	0.51
52	Cr	74	1	759514.4	A	7498.00	0.99
55	Mn	74	1	506813.5	P	4037.00	0.80
56	Fe	74	1	64780260.0	A	811200.00	1.25
59	Co	74	1	1127892.0	A	18190.00	1.61
60	Ni	74	1	289531.7	P	2062.00	0.71
63	Cu	74	1	761006.5	P	2737.00	0.36
66	Zn	74	1	150572.8	P	970.40	0.64
75	As	74	1	114556.8	P	580.70	0.51
78	Se	74	1	10004.7	P	66.60	0.67
88	Sr	103	1	618718.3	P	7483.00	1.21
95	Mo	103	1	340484.1	P	3610.00	1.06
109	Ag	103	1	1047845.0	A	17300.00	1.65
111	Cd	103	1	180786.1	P	2663.00	1.47
118	Sn	103	1	390812.9	P	2495.00	0.64
123	Sb	103	1	446799.9	P	3991.00	0.89
135	Ba	103	1	107619.3	P	617.90	0.57
200	Hg	209	1	12772.7	P	24.83	0.19
205	Tl	209	1	2049839.0	A	84670.00	4.13
208	Pb	209	1	2810340.0	A	31950.00	1.14
238	U	209	1	2842011.0	A	28830.00	1.01

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	75172	1.45	78990	95.2	30 - 125	
45	Sc	1	1464195	1.04	1431000	102.3	30 - 125	
74	Ge	1	3643468	0.77	3609000	101.0	30 - 125	
103	Rh	1	5653219	0.59	5970000	94.7	30 - 125	
165	Ho	1	2605242	1.26	2661000	97.9	30 - 125	
175	Lu	1	2070185	2.21	2076000	99.7	30 - 125	
209	Bi	1	2684407	0.51	2823000	95.1	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\010SMPL.D\010SMPL.D#
Date Acquired: Jul 26 2011 08:38 am Acq. Method: 00He_ALL.M
Sample Name: ICV Vial Number: 1105
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**40.490**	ug/l	40.49	2.4	900	6	P	
23	Na	1	**4087.000**	ug/l	4,087.00	1.4	450000	45	A	
24	Mg	1	**4112.000**	ug/l	4,112.00	1.6	450000	45	A	
27	Al	1	**408.500**	ug/l	408.50	1.8	450000	45	P	
31	P	1	**4042.000**	ug/l	4,042.00	1.9	450000	45	P	
39	K	1	**4068.000**	ug/l	4,068.00	1.9	450000	45	A	
43	Ca	1	**4064.000**	ug/l	4,064.00	0.1	450000	45	P	
47	Ti	1	**40.370**	ug/l	40.37	1.5	4500	45	P	
51	V	1	**40.630**	ug/l	40.63	0.4	4500	74	P	
52	Cr	1	**40.380**	ug/l	40.38	0.6	4500	74	P	
55	Mn	1	**41.050**	ug/l	41.05	0.9	4500	74	P	
56	Fe	1	**4056.000**	ug/l	4,056.00	0.6	450000	74	A	
59	Co	1	**40.880**	ug/l	40.88	0.6	4500	74	P	
60	Ni	1	**41.490**	ug/l	41.49	0.5	4500	74	P	
63	Cu	1	**41.560**	ug/l	41.56	1.0	4500	74	P	
66	Zn	1	**40.760**	ug/l	40.76	0.5	4500	74	P	
75	As	1	**41.340**	ug/l	41.34	0.2	4500	74	P	
78	Se	1	**40.480**	ug/l	40.48	0.3	4500	74	P	
88	Sr	1	**40.370**	ug/l	40.37	0.6	4500	103	P	
95	Mo	1	**39.980**	ug/l	39.98	0.9	4500	103	P	
109	Ag	1	**41.100**	ug/l	41.10	1.0	4500	103	P	
111	Cd	1	**40.770**	ug/l	40.77	0.9	4500	103	P	
118	Sn	1	**40.370**	ug/l	40.37	1.5	4500	103	P	
123	Sb	1	**39.910**	ug/l	39.91	1.1	4500	103	P	
135	Ba	1	**40.670**	ug/l	40.67	1.8	4500	103	P	
200	Hg	1	**2.096**	ug/l	2.10	1.9	45	209	P	
205	Tl	1	**41.480**	ug/l	41.48	1.7	4500	209	P	
208	Pb	1	**41.020**	ug/l	41.02	1.3	4500	209	P	
238	U	1	**40.990**	ug/l	40.99	1.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75818	0.84	78990	**96.0**	30	-	125	
45	Sc	1	1478764	0.99	1431000	**103.3**	30	-	125	
74	Ge	1	3668472	0.59	3609000	**101.6**	30	-	125	
103	Rh	1	5785936	0.53	5970000	**96.9**	30	-	125	
165	Ho	1	2619831	0.58	2661000	**98.5**	30	-	125	
175	Lu	1	2102562	0.76	2076000	**101.3**	30	-	125	
209	Bi	1	2738850	0.70	2823000	**97.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\011SMPL.D\011SMPL.D#
Date Acquired: Jul 26 2011 08:44 am Acq. Method: 00He_ALL.M
Sample Name: ICB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	378.5	900	6	P	
23	**Na**	1	**-5.193**	ug/l	-5.19	27.2	450000	45	P	
24	**Mg**	1	**0.089**	ug/l	0.09	11.8	450000	45	P	
27	**Al**	1	**0.062**	ug/l	0.06	51.4	450000	45	P	
31	**P**	1	**2.372**	ug/l	2.37	147.7	450000	45	P	
39	**K**	1	**-1.659**	ug/l	-1.66	26.1	450000	45	P	
43	**Ca**	1	**0.875**	ug/l	0.88	191.8	450000	45	P	
47	**Ti**	1	**0.007**	ug/l	0.01	385.9	4500	45	P	
51	**V**	1	**0.049**	ug/l	0.05	35.7	4500	74	P	
52	**Cr**	1	**-0.007**	ug/l	-0.01	44.0	4500	74	P	
55	**Mn**	1	**-0.006**	ug/l	-0.01	95.5	4500	74	P	
56	**Fe**	1	**1.553**	ug/l	1.55	9.2	450000	74	P	
59	**Co**	1	**0.001**	ug/l	0.00	150.1	4500	74	P	
60	**Ni**	1	**-0.003**	ug/l	0.00	309.9	4500	74	P	
63	**Cu**	1	**-0.017**	ug/l	-0.02	7.7	4500	74	P	
66	**Zn**	1	**-0.053**	ug/l	-0.05	29.4	4500	74	P	
75	**As**	1	**0.023**	ug/l	0.02	26.1	4500	74	P	
78	**Se**	1	**0.033**	ug/l	0.03	257.2	4500	74	P	
88	**Sr**	1	**0.000**	ug/l	0.00	1497.2	4500	103	P	
95	**Mo**	1	**0.037**	ug/l	0.04	48.9	4500	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	5963.9	4500	103	P	
111	**Cd**	1	**0.004**	ug/l	0.00	187.0	4500	103	P	
118	**Sn**	1	**0.160**	ug/l	0.16	17.8	4500	103	P	
123	**Sb**	1	**0.051**	ug/l	0.05	36.0	4500	103	P	
135	**Ba**	1	**-0.010**	ug/l	-0.01	26.9	4500	103	P	
200	**Hg**	1	**0.009**	ug/l	0.01	16.8	45	209	P	
205	**Tl**	1	**0.086**	ug/l	0.09	7.6	4500	209	P	
208	**Pb**	1	**0.004**	ug/l	0.00	154.9	4500	209	P	
238	**U**	1	**0.007**	ug/l	0.01	11.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76630	0.66	78990	**97.0**	30	-	125	
45	Sc	1	1470884	1.04	1431000	**102.8**	30	-	125	
74	Ge	1	3680940	1.03	3609000	**102.0**	30	-	125	
103	Rh	1	5920486	0.69	5970000	**99.2**	30	-	125	
165	Ho	1	2627732	1.62	2661000	**98.7**	30	-	125	
175	Lu	1	2082634	1.43	2076000	**100.3**	30	-	125	
209	Bi	1	2818262	1.15	2823000	**99.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\012SMPL.D\012SMPL.D#
Date Acquired: Jul 26 2011 08:50 am Acq. Method: 00He_ALL.M
Sample Name: CRI (2 PPB) (RL) Vial Number: 1107
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.863**	ug/l	1.86	1.0	900	6	P	
23	**Na**	1	**203.400**	ug/l	203.40	2.2	450000	45	P	
24	**Mg**	1	**218.000**	ug/l	218.00	2.4	450000	45	P	
27	**Al**	1	**21.030**	ug/l	21.03	3.6	450000	45	P	
31	**P**	1	**205.200**	ug/l	205.20	1.1	450000	45	P	
39	**K**	1	**209.700**	ug/l	209.70	3.5	450000	45	P	
43	**Ca**	1	**212.000**	ug/l	212.00	8.2	450000	45	P	
47	**Ti**	1	**2.046**	ug/l	2.05	7.8	4500	45	P	
51	**V**	1	**2.092**	ug/l	2.09	1.7	4500	74	P	
52	**Cr**	1	**2.091**	ug/l	2.09	0.7	4500	74	P	
55	**Mn**	1	**2.041**	ug/l	2.04	1.3	4500	74	P	
56	**Fe**	1	**218.100**	ug/l	218.10	2.2	450000	74	A	
59	**Co**	1	**2.108**	ug/l	2.11	0.2	4500	74	P	
60	**Ni**	1	**2.157**	ug/l	2.16	1.8	4500	74	P	
63	**Cu**	1	**2.189**	ug/l	2.19	2.4	4500	74	P	
66	**Zn**	1	**2.101**	ug/l	2.10	3.7	4500	74	P	
75	**As**	1	**2.090**	ug/l	2.09	6.0	4500	74	P	
78	**Se**	1	**2.139**	ug/l	2.14	1.0	4500	74	P	
88	**Sr**	1	**1.988**	ug/l	1.99	1.6	4500	103	P	
95	**Mo**	1	**2.014**	ug/l	2.01	5.1	4500	103	P	
109	**Ag**	1	**2.102**	ug/l	2.10	1.0	4500	103	P	
111	**Cd**	1	**1.988**	ug/l	1.99	5.7	4500	103	P	
118	**Sn**	1	**2.080**	ug/l	2.08	2.8	4500	103	P	
123	**Sb**	1	**1.940**	ug/l	1.94	5.0	4500	103	P	
135	**Ba**	1	**2.024**	ug/l	2.02	6.3	4500	103	P	
200	**Hg**	1	**0.106**	ug/l	0.11	3.2	45	209	P	
205	**Tl**	1	**2.125**	ug/l	2.13	3.6	4500	209	P	
208	**Pb**	1	**2.065**	ug/l	2.07	3.2	4500	209	P	
238	**U**	1	**2.043**	ug/l	2.04	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77386	0.33	78990	**98.0**	30	-	125	
45	Sc	1	1468964	1.50	1431000	**102.7**	30	-	125	
74	Ge	1	3646778	0.29	3609000	**101.0**	30	-	125	
103	Rh	1	5944342	0.32	5970000	**99.6**	30	-	125	
165	Ho	1	2644627	0.94	2661000	**99.4**	30	-	125	
175	Lu	1	2095719	1.17	2076000	**100.9**	30	-	125	
209	Bi	1	2807718	1.55	2823000	**99.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\013SMPL.D\013SMPL.D#
Date Acquired: Jul 26 2011 08:56 am Acq. Method: 00He_ALL.M
Sample Name: ICSA Vial Number: 1101
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.00	126.2	900	6	P	
23	**Na**	1	**50860.000**	ug/l	50,860.00	2.4	450000	45	A	
24	**Mg**	1	**20110.000**	ug/l	20,110.00	2.0	450000	45	A	
27	**Al**	1	**19210.000**	ug/l	19,210.00	1.9	450000	45	A	
31	**P**	1	**20750.000**	ug/l	20,750.00	3.1	450000	45	A	
39	**K**	1	**20080.000**	ug/l	20,080.00	4.0	450000	45	A	
43	**Ca**	1	**55880.000**	ug/l	55,880.00	2.4	450000	45	P	
47	**Ti**	1	**407.200**	ug/l	407.20	2.0	4500	45	P	
51	**V**	1	**-0.125**	ug/l	-0.12	7.3	4500	74	P	
52	**Cr**	1	**1.241**	ug/l	1.24	0.4	4500	74	P	
55	**Mn**	1	**0.760**	ug/l	0.76	4.4	4500	74	P	
56	**Fe**	1	**50540.000**	ug/l	50,540.00	2.6	450000	74	A	
59	**Co**	1	**0.014**	ug/l	0.01	13.8	4500	74	P	
60	**Ni**	1	**0.566**	ug/l	0.57	6.0	4500	74	P	
63	**Cu**	1	**0.177**	ug/l	0.18	1.8	4500	74	P	
66	**Zn**	1	**1.389**	ug/l	1.39	3.4	4500	74	P	
75	**As**	1	**0.026**	ug/l	0.03	68.1	4500	74	P	
78	**Se**	1	**0.065**	ug/l	0.07	44.8	4500	74	P	
88	**Sr**	1	**3.009**	ug/l	3.01	1.2	4500	103	P	
95	**Mo**	1	**439.700**	ug/l	439.70	1.7	4500	103	A	
109	**Ag**	1	**0.031**	ug/l	0.03	5.4	4500	103	P	
111	**Cd**	1	**0.032**	ug/l	0.03	270.9	4500	103	P	
118	**Sn**	1	**0.154**	ug/l	0.15	2.1	4500	103	P	
123	**Sb**	1	**0.133**	ug/l	0.13	8.4	4500	103	P	
135	**Ba**	1	**0.191**	ug/l	0.19	32.3	4500	103	P	
200	**Hg**	1	**0.006**	ug/l	0.01	57.3	45	209	P	
205	**Tl**	1	**0.033**	ug/l	0.03	14.3	4500	209	P	
208	**Pb**	1	**0.073**	ug/l	0.07	9.2	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.00	37.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71554	1.28	78990	**90.6**	30	-	125	
45	Sc	1	1427223	2.04	1431000	**99.7**	30	-	125	
74	Ge	1	3483303	0.59	3609000	**96.5**	30	-	125	
103	Rh	1	5191513	1.78	5970000	**87.0**	30	-	125	
165	Ho	1	2507815	1.36	2661000	**94.2**	30	-	125	
175	Lu	1	1989743	1.15	2076000	**95.8**	30	-	125	
209	Bi	1	2466812	0.49	2823000	**87.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\014SMPL.D\014SMPL.D#
Date Acquired: Jul 26 2011 09:01 am Acq. Method: 00He_ALL.M
Sample Name: ICSAB Vial Number: 1102
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.003**	ug/l	0.00	197.2	900	6	P	
23	Na	1	**51040.000**	ug/l	51,040.00	2.0	450000	45	A	
24	Mg	1	**20190.000**	ug/l	20,190.00	1.1	450000	45	A	
27	Al	1	**19160.000**	ug/l	19,160.00	1.1	450000	45	A	
31	P	1	**20980.000**	ug/l	20,980.00	1.2	450000	45	A	
39	K	1	**20120.000**	ug/l	20,120.00	1.2	450000	45	A	
43	Ca	1	**55980.000**	ug/l	55,980.00	1.8	450000	45	P	
47	Ti	1	**406.600**	ug/l	406.60	1.6	4500	45	P	
51	V	1	**41.420**	ug/l	41.42	1.1	4500	74	P	
52	Cr	1	**41.140**	ug/l	41.14	1.5	4500	74	P	
55	Mn	1	**40.610**	ug/l	40.61	0.8	4500	74	P	
56	Fe	1	**50050.000**	ug/l	50,050.00	1.1	450000	74	A	
59	Co	1	**40.410**	ug/l	40.41	1.3	4500	74	P	
60	Ni	1	**40.620**	ug/l	40.62	1.1	4500	74	P	
63	Cu	1	**39.380**	ug/l	39.38	1.2	4500	74	P	
66	Zn	1	**20.790**	ug/l	20.79	1.4	4500	74	P	
75	As	1	**21.000**	ug/l	21.00	1.3	4500	74	P	
78	Se	1	**21.330**	ug/l	21.33	1.5	4500	74	P	
88	Sr	1	**3.006**	ug/l	3.01	1.3	4500	103	P	
95	Mo	1	**432.500**	ug/l	432.50	0.7	4500	103	A	
109	Ag	1	**10.350**	ug/l	10.35	1.2	4500	103	P	
111	Cd	1	**21.520**	ug/l	21.52	0.7	4500	103	P	
118	Sn	1	**0.032**	ug/l	0.03	21.0	4500	103	P	
123	Sb	1	**0.140**	ug/l	0.14	9.0	4500	103	P	
135	Ba	1	**0.133**	ug/l	0.13	12.3	4500	103	P	
200	Hg	1	**0.006**	ug/l	0.01	116.9	45	209	P	
205	Tl	1	**0.023**	ug/l	0.02	12.0	4500	209	P	
208	Pb	1	**0.036**	ug/l	0.04	37.2	4500	209	P	
238	U	1	**0.001**	ug/l	0.00	58.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71057	0.51	78990	**90.0**	30	-	125	
45	Sc	1	1438989	1.72	1431000	**100.6**	30	-	125	
74	Ge	1	3563495	0.86	3609000	**98.7**	30	-	125	
103	Rh	1	5242425	0.49	5970000	**87.8**	30	-	125	
165	Ho	1	2543337	1.10	2661000	**95.6**	30	-	125	
175	Lu	1	2011899	1.40	2076000	**96.9**	30	-	125	
209	Bi	1	2514237	2.66	2823000	**89.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\029SMPL.D\029SMPL.D#
Date Acquired: Jul 26 2011 10:30 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.700**	ug/l	48.70	1.4	900	6	P	
23	**Na**	1	**4901.000**	ug/l	4,901.00	0.8	450000	45	A	
24	**Mg**	1	**4875.000**	ug/l	4,875.00	0.5	450000	45	A	
27	**Al**	1	**503.500**	ug/l	503.50	1.2	450000	45	P	
31	**P**	1	**4925.000**	ug/l	4,925.00	0.5	450000	45	P	
39	**K**	1	**5012.000**	ug/l	5,012.00	0.8	450000	45	A	
43	**Ca**	1	**4975.000**	ug/l	4,975.00	1.5	450000	45	P	
47	**Ti**	1	**49.580**	ug/l	49.58	0.3	4500	45	P	
51	**V**	1	**49.850**	ug/l	49.85	0.8	4500	74	P	
52	**Cr**	1	**49.050**	ug/l	49.05	1.0	4500	74	P	
55	**Mn**	1	**50.530**	ug/l	50.53	0.6	4500	74	P	
56	**Fe**	1	**5007.000**	ug/l	5,007.00	0.9	450000	74	A	
59	**Co**	1	**48.760**	ug/l	48.76	1.5	4500	74	P	
60	**Ni**	1	**49.380**	ug/l	49.38	1.9	4500	74	P	
63	**Cu**	1	**49.100**	ug/l	49.10	1.3	4500	74	P	
66	**Zn**	1	**48.840**	ug/l	48.84	1.8	4500	74	P	
75	**As**	1	**49.430**	ug/l	49.43	1.3	4500	74	P	
78	**Se**	1	**51.090**	ug/l	51.09	1.0	4500	74	P	
88	**Sr**	1	**50.550**	ug/l	50.55	1.7	4500	103	P	
95	**Mo**	1	**49.000**	ug/l	49.00	0.4	4500	103	P	
109	**Ag**	1	**49.510**	ug/l	49.51	1.6	4500	103	P	
111	**Cd**	1	**49.030**	ug/l	49.03	1.1	4500	103	P	
118	**Sn**	1	**49.650**	ug/l	49.65	0.8	4500	103	P	
123	**Sb**	1	**50.760**	ug/l	50.76	1.4	4500	103	P	
135	**Ba**	1	**49.520**	ug/l	49.52	0.9	4500	103	P	
200	**Hg**	1	**2.412**	ug/l	2.41	2.9	45	209	P	
205	**Tl**	1	**49.280**	ug/l	49.28	4.3	4500	209	A	
208	**Pb**	1	**49.450**	ug/l	49.45	2.2	4500	209	P	
238	**U**	1	**50.170**	ug/l	50.17	1.1	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77440	1.72	78990	**98.0**	30	-	125	
45	Sc	1	1539155	0.95	1431000	**107.6**	30	-	125	
74	Ge	1	3761998	1.50	3609000	**104.2**	30	-	125	
103	Rh	1	5905976	0.51	5970000	**98.9**	30	-	125	
165	Ho	1	2721134	0.45	2661000	**102.3**	30	-	125	
175	Lu	1	2170688	1.14	2076000	**104.6**	30	-	125	
209	Bi	1	2869775	1.35	2823000	**101.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\031SMPL.D\031SMPL.D#
Date Acquired: Jul 26 2011 10:44 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.00	154.8	900	6	P	
23	**Na**	1	**-15.420**	ug/l	-15.42	6.3	450000	45	P	
24	**Mg**	1	**-0.030**	ug/l	-0.03	186.5	450000	45	P	
27	**Al**	1	**0.150**	ug/l	0.15	107.6	450000	45	P	
31	**P**	1	**-1.031**	ug/l	-1.03	78.6	450000	45	P	
39	**K**	1	**-22.390**	ug/l	-22.39	18.8	450000	45	P	
43	**Ca**	1	**1.487**	ug/l	1.49	52.5	450000	45	P	
47	**Ti**	1	**0.012**	ug/l	0.01	94.2	4500	45	P	
51	**V**	1	**0.045**	ug/l	0.05	38.8	4500	74	P	
52	**Cr**	1	**-0.006**	ug/l	-0.01	219.7	4500	74	P	
55	**Mn**	1	**-0.026**	ug/l	-0.03	47.6	4500	74	P	
56	**Fe**	1	**0.436**	ug/l	0.44	31.6	450000	74	P	
59	**Co**	1	**-0.003**	ug/l	0.00	6.5	4500	74	P	
60	**Ni**	1	**-0.017**	ug/l	-0.02	51.3	4500	74	P	
63	**Cu**	1	**-0.034**	ug/l	-0.03	7.6	4500	74	P	
66	**Zn**	1	**-0.034**	ug/l	-0.03	100.2	4500	74	P	
75	**As**	1	**0.020**	ug/l	0.02	35.3	4500	74	P	
78	**Se**	1	**0.016**	ug/l	0.02	632.9	4500	74	P	
88	**Sr**	1	**0.004**	ug/l	0.00	277.0	4500	103	P	
95	**Mo**	1	**0.014**	ug/l	0.01	70.2	4500	103	P	
109	**Ag**	1	**-0.002**	ug/l	0.00	94.1	4500	103	P	
111	**Cd**	1	**-0.004**	ug/l	0.00	91.2	4500	103	P	
118	**Sn**	1	**0.099**	ug/l	0.10	7.0	4500	103	P	
123	**Sb**	1	**0.245**	ug/l	0.25	11.1	4500	103	P	
135	**Ba**	1	**-0.015**	ug/l	-0.01	58.4	4500	103	P	
200	**Hg**	1	**0.003**	ug/l	0.00	55.7	45	209	P	
205	**Tl**	1	**0.031**	ug/l	0.03	21.6	4500	209	P	
208	**Pb**	1	**0.006**	ug/l	0.01	211.7	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.00	39.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80050	1.37	78990	**101.3**	30	-	125	
45	Sc	1	1544650	2.28	1431000	**107.9**	30	-	125	
74	Ge	1	3803965	0.85	3609000	**105.4**	30	-	125	
103	Rh	1	6081028	0.96	5970000	**101.9**	30	-	125	
165	Ho	1	2747331	1.04	2661000	**103.2**	30	-	125	
175	Lu	1	2196009	0.91	2076000	**105.8**	30	-	125	
209	Bi	1	2945907	1.07	2823000	**104.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\032SMPL.D\032SMPL.D#
Date Acquired: Jul 26 2011 10:50 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-91196/3-A Vial Number: 2201
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.003**	ug/l	-0.03	58.9	900	6	P	
23	Na	1	**-15.610**	ug/l	-156.10	2.2	450000	45	P	
24	Mg	1	**0.081**	ug/l	0.81	100.2	450000	45	P	
27	Al	1	**0.377**	ug/l	3.77	12.9	450000	45	P	
31	P	1	**1.035**	ug/l	10.35	148.4	450000	45	P	
39	K	1	**-22.060**	ug/l	-220.60	14.0	450000	45	P	
43	Ca	1	**0.629**	ug/l	6.29	99.9	450000	45	P	
47	Ti	1	**0.050**	ug/l	0.50	72.6	4500	45	P	
51	V	1	**0.110**	ug/l	1.10	13.2	4500	74	P	
52	Cr	1	**0.013**	ug/l	0.13	54.4	4500	74	P	
55	Mn	1	**-0.121**	ug/l	-1.21	2.5	4500	74	P	
56	Fe	1	**-0.033**	ug/l	-0.33	111.3	450000	74	P	
59	Co	1	**-0.002**	ug/l	-0.02	196.4	4500	74	P	
60	Ni	1	**-0.016**	ug/l	-0.16	59.1	4500	74	P	
63	Cu	1	**0.018**	ug/l	0.18	16.8	4500	74	P	
66	Zn	1	**-0.197**	ug/l	-1.97	7.4	4500	74	P	
75	As	1	**0.021**	ug/l	0.21	21.4	4500	74	P	
78	Se	1	**0.097**	ug/l	0.97	63.5	4500	74	P	
88	Sr	1	**-0.001**	ug/l	-0.01	876.6	4500	103	P	
95	Mo	1	**0.004**	ug/l	0.04	92.7	4500	103	P	
109	Ag	1	**-0.001**	ug/l	-0.01	232.6	4500	103	P	
111	Cd	1	**0.005**	ug/l	0.05	224.6	4500	103	P	
118	Sn	1	**0.077**	ug/l	0.77	16.1	4500	103	P	
123	Sb	1	**0.188**	ug/l	1.88	13.2	4500	103	P	
135	Ba	1	**-0.018**	ug/l	-0.18	64.7	4500	103	P	
200	Hg	1	**0.005**	ug/l	0.05	91.2	45	209	P	
205	Tl	1	**0.024**	ug/l	0.24	26.3	4500	209	P	
208	Pb	1	**0.003**	ug/l	0.03	277.4	4500	209	P	
238	U	1	**0.000**	ug/l	0.00	390.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78714	0.97	78990	**99.6**	30	-	125	
45	Sc	1	1515236	1.72	1431000	**105.9**	30	-	125	
74	Ge	1	3720919	0.70	3609000	**103.1**	30	-	125	
103	Rh	1	5987082	0.95	5970000	**100.3**	30	-	125	
165	Ho	1	2709614	0.90	2661000	**101.8**	30	-	125	
175	Lu	1	2187323	1.52	2076000	**105.4**	30	-	125	
209	Bi	1	2926513	0.30	2823000	**103.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\034SMPL.D\034SMPL.D#
Date Acquired: Jul 26 2011 11:04 am Acq. Method: 00He_ALL.M
Sample Name: 580-27469-A-1-A Vial Number: 2203
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**31.390**	ug/l	1,569.50	0.6	900	6	P	
23	**Na**	1	**1757.000**	ug/l	87,850.00	0.5	450000	45	A	
24	**Mg**	1	**2595.000**	ug/l	129,750.00	2.0	450000	45	A	
27	**Al**	1	**10800.000**	ug/l	540,000.00	2.8	450000	45	A	
31	**P**	1	**269.100**	ug/l	13,455.00	3.0	450000	45	P	
39	**K**	1	**3016.000**	ug/l	150,800.00	1.4	450000	45	A	
43	**Ca**	1	**11310.000**	ug/l	565,500.00	2.1	450000	45	P	
47	**Ti**	1	**272.800**	ug/l	13,640.00	2.1	4500	45	P	
51	**V**	1	**67.660**	ug/l	3,383.00	2.0	4500	74	P	
52	**Cr**	1	**118.800**	ug/l	5,940.00	0.9	4500	74	A	
55	**Mn**	1	**210.500**	ug/l	10,525.00	2.5	4500	74	A	
56	**Fe**	1	**11080.000**	ug/l	554,000.00	2.2	450000	74	A	
59	**Co**	1	**76.980**	ug/l	3,849.00	0.9	4500	74	A	
60	**Ni**	1	**70.590**	ug/l	3,529.50	1.8	4500	74	P	
63	**Cu**	1	**60.710**	ug/l	3,035.50	1.8	4500	74	P	
66	**Zn**	1	**256.000**	ug/l	12,800.00	2.2	4500	74	P	
75	**As**	1	**33.990**	ug/l	1,699.50	1.9	4500	74	P	
78	**Se**	1	**55.000**	ug/l	2,750.00	2.1	4500	74	P	
88	**Sr**	1	**118.600**	ug/l	5,930.00	0.9	4500	103	P	
95	**Mo**	1	**65.020**	ug/l	3,251.00	0.7	4500	103	P	
109	**Ag**	1	**25.460**	ug/l	1,273.00	0.8	4500	103	P	
111	**Cd**	1	**40.540**	ug/l	2,027.00	0.6	4500	103	P	
118	**Sn**	1	**59.310**	ug/l	2,965.50	0.9	4500	103	P	
123	**Sb**	1	**35.730**	ug/l	1,786.50	1.0	4500	103	P	
135	**Ba**	1	**324.500**	ug/l	16,225.00	1.4	4500	103	P	
200	**Hg**	1	**3.701**	ug/l	185.05	0.9	45	209	P	
205	**Tl**	1	**111.400**	ug/l	5,570.00	5.5	4500	209	A	
208	**Pb**	1	**99.620**	ug/l	4,981.00	1.2	4500	209	A	
238	**U**	1	**5.625**	ug/l	281.25	0.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77133	0.83	78990	**97.6**	30	-	125	
45	Sc	1	1551271	2.30	1431000	**108.4**	30	-	125	
74	Ge	1	3780689	1.54	3609000	**104.8**	30	-	125	
103	Rh	1	5795263	0.88	5970000	**97.1**	30	-	125	
165	Ho	1	2696276	0.87	2661000	**101.3**	30	-	125	
175	Lu	1	2153824	1.30	2076000	**103.7**	30	-	125	
209	Bi	1	2821663	0.52	2823000	**100.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\036SMPL.D\036SMPL.D#
Date Acquired: Jul 26 2011 11:17 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-91196/4-A Vial Number: 2205
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.234**	ug/l	111.70	5.2	900	6	P	
23	**Na**	1	**440.200**	ug/l	22,010.00	1.7	450000	45	A	
24	**Mg**	1	**459.300**	ug/l	22,965.00	2.5	450000	45	P	
27	**Al**	1	**93.320**	ug/l	4,666.00	2.7	450000	45	P	
31	**P**	1	**440.500**	ug/l	22,025.00	5.6	450000	45	P	
39	**K**	1	**443.000**	ug/l	22,150.00	3.4	450000	45	P	
43	**Ca**	1	**3928.000**	ug/l	196,400.00	2.1	450000	45	P	
47	**Ti**	1	**107.700**	ug/l	5,385.00	2.5	4500	45	P	
51	**V**	1	**22.420**	ug/l	1,121.00	2.4	4500	74	P	
52	**Cr**	1	**9.014**	ug/l	450.70	1.6	4500	74	P	
55	**Mn**	1	**23.320**	ug/l	1,166.00	1.5	4500	74	P	
56	**Fe**	1	**498.300**	ug/l	24,915.00	2.1	450000	74	A	
59	**Co**	1	**22.430**	ug/l	1,121.50	2.5	4500	74	P	
60	**Ni**	1	**22.890**	ug/l	1,144.50	2.1	4500	74	P	
63	**Cu**	1	**11.630**	ug/l	581.50	2.9	4500	74	P	
66	**Zn**	1	**22.350**	ug/l	1,117.50	2.8	4500	74	P	
75	**As**	1	**90.600**	ug/l	4,530.00	2.9	4500	74	P	
78	**Se**	1	**92.160**	ug/l	4,608.00	2.6	4500	74	P	
88	**Sr**	1	**455.700**	ug/l	22,785.00	0.8	4500	103	A	
95	**Mo**	1	**106.500**	ug/l	5,325.00	0.1	4500	103	P	
109	**Ag**	1	**13.320**	ug/l	666.00	0.8	4500	103	P	
111	**Cd**	1	**2.155**	ug/l	107.75	5.4	4500	103	P	
118	**Sn**	1	**108.500**	ug/l	5,425.00	1.2	4500	103	P	
123	**Sb**	1	**65.100**	ug/l	3,255.00	0.8	4500	103	P	
135	**Ba**	1	**90.460**	ug/l	4,523.00	1.1	4500	103	P	
200	**Hg**	1	**1.058**	ug/l	52.90	5.3	45	209	P	
205	**Tl**	1	**93.010**	ug/l	4,650.50	2.0	4500	209	A	
208	**Pb**	1	**22.850**	ug/l	1,142.50	2.3	4500	209	P	
238	**U**	1	**88.250**	ug/l	4,412.50	1.7	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	81379	1.48	78990	**103.0**	30	-	125	
45	Sc	1	1580747	1.79	1431000	**110.5**	30	-	125	
74	Ge	1	3841159	1.82	3609000	**106.4**	30	-	125	
103	Rh	1	6075806	0.30	5970000	**101.8**	30	-	125	
165	Ho	1	2735345	1.11	2661000	**102.8**	30	-	125	
175	Lu	1	2216859	0.59	2076000	**106.8**	30	-	125	
209	Bi	1	2903190	2.02	2823000	**102.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\037SMPL.D\037SMPL.D#
Date Acquired: Jul 26 2011 11:24 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-91196/5-A Vial Number: 2206
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.180**	ug/l	109.00	3.5	900	6	P	
23	**Na**	1	**442.600**	ug/l	22,130.00	2.3	450000	45	A	
24	**Mg**	1	**464.200**	ug/l	23,210.00	2.6	450000	45	P	
27	**Al**	1	**95.040**	ug/l	4,752.00	2.0	450000	45	P	
31	**P**	1	**444.600**	ug/l	22,230.00	4.0	450000	45	P	
39	**K**	1	**447.800**	ug/l	22,390.00	3.0	450000	45	P	
43	**Ca**	1	**3979.000**	ug/l	198,950.00	3.5	450000	45	P	
47	**Ti**	1	**107.000**	ug/l	5,350.00	2.6	4500	45	P	
51	**V**	1	**22.470**	ug/l	1,123.50	1.2	4500	74	P	
52	**Cr**	1	**8.969**	ug/l	448.45	2.8	4500	74	P	
55	**Mn**	1	**23.180**	ug/l	1,159.00	1.4	4500	74	P	
56	**Fe**	1	**498.600**	ug/l	24,930.00	2.2	450000	74	A	
59	**Co**	1	**22.330**	ug/l	1,116.50	1.0	4500	74	P	
60	**Ni**	1	**22.800**	ug/l	1,140.00	0.5	4500	74	P	
63	**Cu**	1	**11.470**	ug/l	573.50	2.2	4500	74	P	
66	**Zn**	1	**22.260**	ug/l	1,113.00	1.5	4500	74	P	
75	**As**	1	**90.060**	ug/l	4,503.00	1.5	4500	74	P	
78	**Se**	1	**91.230**	ug/l	4,561.50	1.8	4500	74	P	
88	**Sr**	1	**458.900**	ug/l	22,945.00	1.7	4500	103	A	
95	**Mo**	1	**106.700**	ug/l	5,335.00	2.1	4500	103	P	
109	**Ag**	1	**13.320**	ug/l	666.00	1.2	4500	103	P	
111	**Cd**	1	**2.304**	ug/l	115.20	3.2	4500	103	P	
118	**Sn**	1	**108.800**	ug/l	5,440.00	2.0	4500	103	P	
123	**Sb**	1	**65.280**	ug/l	3,264.00	1.6	4500	103	P	
135	**Ba**	1	**90.930**	ug/l	4,546.50	1.3	4500	103	P	
200	**Hg**	1	**1.094**	ug/l	54.70	1.4	45	209	P	
205	**Tl**	1	**94.230**	ug/l	4,711.50	1.6	4500	209	A	
208	**Pb**	1	**22.800**	ug/l	1,140.00	2.6	4500	209	P	
238	**U**	1	**88.660**	ug/l	4,433.00	1.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79716	0.84	78990	**100.9**	30	-	125	
45	Sc	1	1573449	1.93	1431000	**110.0**	30	-	125	
74	Ge	1	3862173	1.04	3609000	**107.0**	30	-	125	
103	Rh	1	6082317	0.86	5970000	**101.9**	30	-	125	
165	Ho	1	2767116	0.82	2661000	**104.0**	30	-	125	
175	Lu	1	2200786	0.36	2076000	**106.0**	30	-	125	
209	Bi	1	2918679	1.75	2823000	**103.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\038SMPL.D\038SMPL.D#
Date Acquired: Jul 26 2011 11:31 am Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-91196/6-A Vial Number: 2207
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**45.140**	ug/l	902.80	1.6	900	6	P	
23	**Na**	1	**355.500**	ug/l	7,110.00	1.6	450000	45	A	
24	**Mg**	1	**1489.000**	ug/l	29,780.00	0.6	450000	45	A	
27	**Al**	1	**4171.000**	ug/l	83,420.00	0.7	450000	45	A	
31	**P**	1	**255.200**	ug/l	5,104.00	2.0	450000	45	P	
39	**K**	1	**1334.000**	ug/l	26,680.00	1.7	450000	45	A	
43	**Ca**	1	**3706.000**	ug/l	74,120.00	1.7	450000	45	P	
47	**Ti**	1	**115.400**	ug/l	2,308.00	1.6	4500	45	P	
51	**V**	1	**58.170**	ug/l	1,163.40	1.0	4500	74	P	
52	**Cr**	1	**47.780**	ug/l	955.60	0.4	4500	74	P	
55	**Mn**	1	**245.300**	ug/l	4,906.00	0.4	4500	74	A	
56	**Fe**	1	**7111.000**	ug/l	142,220.00	0.4	450000	74	A	
59	**Co**	1	**72.700**	ug/l	1,454.00	2.4	4500	74	A	
60	**Ni**	1	**57.660**	ug/l	1,153.20	1.2	4500	74	P	
63	**Cu**	1	**37.100**	ug/l	742.00	1.2	4500	74	P	
66	**Zn**	1	**155.600**	ug/l	3,112.00	1.6	4500	74	P	
75	**As**	1	**56.780**	ug/l	1,135.60	0.6	4500	74	P	
78	**Se**	1	**112.500**	ug/l	2,250.00	1.0	4500	74	P	
88	**Sr**	1	**60.720**	ug/l	1,214.40	1.6	4500	103	P	
95	**Mo**	1	**47.080**	ug/l	941.60	1.2	4500	103	P	
109	**Ag**	1	**26.580**	ug/l	531.60	1.9	4500	103	P	
111	**Cd**	1	**58.110**	ug/l	1,162.20	1.6	4500	103	P	
118	**Sn**	1	**71.810**	ug/l	1,436.20	1.2	4500	103	P	
123	**Sb**	1	**113.800**	ug/l	2,276.00	1.1	4500	103	P	
135	**Ba**	1	**170.100**	ug/l	3,402.00	1.5	4500	103	P	
200	**Hg**	1	**8.200**	ug/l	164.00	1.2	45	209	P	
205	**Tl**	1	**90.380**	ug/l	1,807.60	4.6	4500	209	A	
208	**Pb**	1	**85.040**	ug/l	1,700.80	0.9	4500	209	A	
238	**U**	1	**0.555**	ug/l	11.11	0.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78089	0.39	78990	**98.9**	30	-	125	
45	Sc	1	1559201	1.18	1431000	**109.0**	30	-	125	
74	Ge	1	3796296	0.40	3609000	**105.2**	30	-	125	
103	Rh	1	5882886	0.61	5970000	**98.5**	30	-	125	
165	Ho	1	2750366	1.80	2661000	**103.4**	30	-	125	
175	Lu	1	2168406	0.72	2076000	**104.5**	30	-	125	
209	Bi	1	2851641	0.92	2823000	**101.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\039SMPL.D\039SMPL.D#
Date Acquired: Jul 26 2011 11:38 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.760**	ug/l	48.76	1.1	900	6	P	
23	**Na**	1	**4919.000**	ug/l	4,919.00	0.5	450000	45	A	
24	**Mg**	1	**4907.000**	ug/l	4,907.00	1.4	450000	45	A	
27	**Al**	1	**511.500**	ug/l	511.50	0.7	450000	45	P	
31	**P**	1	**5042.000**	ug/l	5,042.00	1.5	450000	45	P	
39	**K**	1	**5080.000**	ug/l	5,080.00	1.5	450000	45	A	
43	**Ca**	1	**5022.000**	ug/l	5,022.00	2.1	450000	45	P	
47	**Ti**	1	**49.660**	ug/l	49.66	0.3	4500	45	P	
51	**V**	1	**49.230**	ug/l	49.23	0.2	4500	74	P	
52	**Cr**	1	**48.610**	ug/l	48.61	0.1	4500	74	P	
55	**Mn**	1	**49.810**	ug/l	49.81	0.3	4500	74	P	
56	**Fe**	1	**4925.000**	ug/l	4,925.00	1.4	450000	74	A	
59	**Co**	1	**48.530**	ug/l	48.53	0.5	4500	74	P	
60	**Ni**	1	**48.740**	ug/l	48.74	1.3	4500	74	P	
63	**Cu**	1	**48.780**	ug/l	48.78	1.2	4500	74	P	
66	**Zn**	1	**48.560**	ug/l	48.56	1.8	4500	74	P	
75	**As**	1	**49.250**	ug/l	49.25	0.5	4500	74	P	
78	**Se**	1	**50.180**	ug/l	50.18	0.6	4500	74	P	
88	**Sr**	1	**50.970**	ug/l	50.97	0.1	4500	103	P	
95	**Mo**	1	**48.960**	ug/l	48.96	1.1	4500	103	P	
109	**Ag**	1	**49.680**	ug/l	49.68	0.8	4500	103	P	
111	**Cd**	1	**50.170**	ug/l	50.17	0.9	4500	103	P	
118	**Sn**	1	**50.230**	ug/l	50.23	0.5	4500	103	P	
123	**Sb**	1	**50.030**	ug/l	50.03	1.6	4500	103	P	
135	**Ba**	1	**50.160**	ug/l	50.16	1.6	4500	103	P	
200	**Hg**	1	**2.444**	ug/l	2.44	2.3	45	209	P	
205	**Tl**	1	**49.460**	ug/l	49.46	4.1	4500	209	A	
208	**Pb**	1	**49.570**	ug/l	49.57	0.8	4500	209	P	
238	**U**	1	**49.970**	ug/l	49.97	2.2	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78023	0.99	78990	**98.8**	30	-	125	
45	Sc	1	1536506	0.26	1431000	**107.4**	30	-	125	
74	Ge	1	3811934	0.47	3609000	**105.6**	30	-	125	
103	Rh	1	5879123	0.13	5970000	**98.5**	30	-	125	
165	Ho	1	2726357	1.25	2661000	**102.5**	30	-	125	
175	Lu	1	2185880	0.63	2076000	**105.3**	30	-	125	
209	Bi	1	2849631	0.44	2823000	**100.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\040SMPL.D\040SMPL.D#
Date Acquired: Jul 26 2011 11:44 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.01	71.1	900	6	P	
23	**Na**	1	**-18.750**	ug/l	-18.75	2.1	450000	45	P	
24	**Mg**	1	**-0.083**	ug/l	-0.08	48.5	450000	45	P	
27	**Al**	1	**0.084**	ug/l	0.08	150.2	450000	45	P	
31	**P**	1	**-0.181**	ug/l	-0.18	192.0	450000	45	P	
39	**K**	1	**-26.790**	ug/l	-26.79	8.6	450000	45	P	
43	**Ca**	1	**0.622**	ug/l	0.62	325.8	450000	45	P	
47	**Ti**	1	**0.017**	ug/l	0.02	60.7	4500	45	P	
51	**V**	1	**0.052**	ug/l	0.05	6.7	4500	74	P	
52	**Cr**	1	**-0.016**	ug/l	-0.02	64.3	4500	74	P	
55	**Mn**	1	**-0.035**	ug/l	-0.04	28.4	4500	74	P	
56	**Fe**	1	**0.931**	ug/l	0.93	14.6	450000	74	P	
59	**Co**	1	**-0.001**	ug/l	0.00	297.3	4500	74	P	
60	**Ni**	1	**-0.029**	ug/l	-0.03	42.5	4500	74	P	
63	**Cu**	1	**-0.034**	ug/l	-0.03	8.3	4500	74	P	
66	**Zn**	1	**-0.065**	ug/l	-0.06	14.0	4500	74	P	
75	**As**	1	**0.020**	ug/l	0.02	87.3	4500	74	P	
78	**Se**	1	**0.052**	ug/l	0.05	127.1	4500	74	P	
88	**Sr**	1	**-0.006**	ug/l	-0.01	41.6	4500	103	P	
95	**Mo**	1	**0.025**	ug/l	0.03	19.9	4500	103	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	172.8	4500	103	P	
111	**Cd**	1	**0.006**	ug/l	0.01	69.4	4500	103	P	
118	**Sn**	1	**0.205**	ug/l	0.20	21.3	4500	103	P	
123	**Sb**	1	**0.102**	ug/l	0.10	13.5	4500	103	P	
135	**Ba**	1	**-0.001**	ug/l	0.00	1819.2	4500	103	P	
200	**Hg**	1	**0.014**	ug/l	0.01	40.9	45	209	P	
205	**Tl**	1	**0.164**	ug/l	0.16	8.3	4500	209	P	
208	**Pb**	1	**0.001**	ug/l	0.00	836.0	4500	209	P	
238	**U**	1	**0.005**	ug/l	0.01	22.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80819	0.88	78990	**102.3**	30	-	125	
45	Sc	1	1588207	1.55	1431000	**111.0**	30	-	125	
74	Ge	1	3862433	1.62	3609000	**107.0**	30	-	125	
103	Rh	1	6140116	0.80	5970000	**102.8**	30	-	125	
165	Ho	1	2762128	1.83	2661000	**103.8**	30	-	125	
175	Lu	1	2204343	1.37	2076000	**106.2**	30	-	125	
209	Bi	1	2989089	0.87	2823000	**105.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\041SMPL.D\041SMPL.D#
Date Acquired: Jul 26 2011 11:51 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-91182/6-A Vial Number: 2101
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.01	317.0	900	6	P	
23	**Na**	1	**-18.020**	ug/l	-90.10	3.9	450000	45	P	
24	**Mg**	1	**-0.096**	ug/l	-0.48	28.4	450000	45	P	
27	**Al**	1	**-0.065**	ug/l	-0.32	196.9	450000	45	P	
31	**P**	1	**3.365**	ug/l	16.83	52.6	450000	45	P	
39	**K**	1	**-27.080**	ug/l	-135.40	10.6	450000	45	P	
43	**Ca**	1	**-1.041**	ug/l	-5.21	35.1	450000	45	P	
47	**Ti**	1	**0.005**	ug/l	0.02	209.5	4500	45	P	
51	**V**	1	**0.071**	ug/l	0.35	25.2	4500	74	P	
52	**Cr**	1	**-0.004**	ug/l	-0.02	167.8	4500	74	P	
55	**Mn**	1	**-0.121**	ug/l	-0.60	3.3	4500	74	P	
56	**Fe**	1	**-0.042**	ug/l	-0.21	77.6	450000	74	P	
59	**Co**	1	**-0.001**	ug/l	-0.01	225.5	4500	74	P	
60	**Ni**	1	**-0.026**	ug/l	-0.13	38.9	4500	74	P	
63	**Cu**	1	**-0.043**	ug/l	-0.22	14.4	4500	74	P	
66	**Zn**	1	**-0.201**	ug/l	-1.00	9.2	4500	74	P	
75	**As**	1	**0.013**	ug/l	0.06	93.3	4500	74	P	
78	**Se**	1	**0.098**	ug/l	0.49	17.4	4500	74	P	
88	**Sr**	1	**0.003**	ug/l	0.01	359.7	4500	103	P	
95	**Mo**	1	**0.007**	ug/l	0.03	92.4	4500	103	P	
109	**Ag**	1	**-0.002**	ug/l	-0.01	96.3	4500	103	P	
111	**Cd**	1	**0.011**	ug/l	0.05	58.3	4500	103	P	
118	**Sn**	1	**0.094**	ug/l	0.47	27.9	4500	103	P	
123	**Sb**	1	**0.069**	ug/l	0.34	21.7	4500	103	P	
135	**Ba**	1	**0.006**	ug/l	0.03	81.1	4500	103	P	
200	**Hg**	1	**0.007**	ug/l	0.04	18.7	45	209	P	
205	**Tl**	1	**0.086**	ug/l	0.43	15.2	4500	209	P	
208	**Pb**	1	**0.002**	ug/l	0.01	320.8	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	156.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79940	1.23	78990	**101.2**	30	-	125	
45	Sc	1	1562409	1.48	1431000	**109.2**	30	-	125	
74	Ge	1	3802108	1.70	3609000	**105.4**	30	-	125	
103	Rh	1	6104655	0.71	5970000	**102.3**	30	-	125	
165	Ho	1	2772575	2.44	2661000	**104.2**	30	-	125	
175	Lu	1	2209650	2.12	2076000	**106.4**	30	-	125	
209	Bi	1	2933711	2.24	2823000	**103.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\042SMPL.D\042SMPL.D#
Date Acquired: Jul 26 2011 11:56 am Acq. Method: 00He_ALL.M
Sample Name: 580-27472-A-1-A Vial Number: 2102
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**60.130**	ug/l	300.65	0.5	900	6	P	
23	**Na**	1	**-12.260**	ug/l	-61.30	5.3	450000	45	P	
24	**Mg**	1	**0.336**	ug/l	1.68	16.6	450000	45	P	
27	**Al**	1	**417.700**	ug/l	2,088.50	1.4	450000	45	P	
31	**P**	1	**1.629**	ug/l	8.15	44.8	450000	45	P	
39	**K**	1	**-26.580**	ug/l	-132.90	11.1	450000	45	P	
43	**Ca**	1	**361.000**	ug/l	1,805.00	5.3	450000	45	P	
47	**Ti**	1	**0.093**	ug/l	0.47	30.7	4500	45	P	
51	**V**	1	**149.900**	ug/l	749.50	0.6	4500	74	A	
52	**Cr**	1	**71.100**	ug/l	355.50	2.0	4500	74	P	
55	**Mn**	1	**254.300**	ug/l	1,271.50	3.1	4500	74	A	
56	**Fe**	1	**357.400**	ug/l	1,787.00	0.3	450000	74	A	
59	**Co**	1	**101.500**	ug/l	507.50	1.3	4500	74	A	
60	**Ni**	1	**166.800**	ug/l	834.00	1.6	4500	74	P	
63	**Cu**	1	**116.300**	ug/l	581.50	1.4	4500	74	A	
66	**Zn**	1	**234.300**	ug/l	1,171.50	2.2	4500	74	P	
75	**As**	1	**117.500**	ug/l	587.50	2.1	4500	74	P	
78	**Se**	1	**85.720**	ug/l	428.60	1.3	4500	74	P	
88	**Sr**	1	**45.410**	ug/l	227.05	1.1	4500	103	P	
95	**Mo**	1	**95.050**	ug/l	475.25	1.5	4500	103	P	
109	**Ag**	1	**64.460**	ug/l	322.30	1.8	4500	103	P	
111	**Cd**	1	**92.380**	ug/l	461.90	2.3	4500	103	P	
118	**Sn**	1	**0.128**	ug/l	0.64	16.1	4500	103	P	
123	**Sb**	1	**78.580**	ug/l	392.90	2.1	4500	103	P	
135	**Ba**	1	**41.820**	ug/l	209.10	1.2	4500	103	P	
200	**Hg**	1	**0.014**	ug/l	0.07	14.3	45	209	P	
205	**Tl**	1	**110.700**	ug/l	553.50	7.5	4500	209	A	
208	**Pb**	1	**398.800**	ug/l	1,994.00	0.9	4500	209	A	
238	**U**	1	**0.000**	ug/l	0.00	773.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78020	0.03	78990	**98.8**	30	-	125	
45	Sc	1	1541860	1.25	1431000	**107.7**	30	-	125	
74	Ge	1	3808470	1.05	3609000	**105.5**	30	-	125	
103	Rh	1	6036417	0.89	5970000	**101.1**	30	-	125	
165	Ho	1	2765682	1.94	2661000	**103.9**	30	-	125	
175	Lu	1	2220196	0.65	2076000	**106.9**	30	-	125	
209	Bi	1	2950434	0.53	2823000	**104.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\043SMPL.D\043SMPL.D#
Date Acquired: Jul 26 2011 12:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27472-A-2-A Vial Number: 2103
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.02	41.3	900	6	P	
23	**Na**	1	**-15.620**	ug/l	-78.10	0.6	450000	45	P	
24	**Mg**	1	**0.208**	ug/l	1.04	31.4	450000	45	P	
27	**Al**	1	**0.908**	ug/l	4.54	4.8	450000	45	P	
31	**P**	1	**2.651**	ug/l	13.26	127.7	450000	45	P	
39	**K**	1	**-11.750**	ug/l	-58.75	19.6	450000	45	P	
43	**Ca**	1	**1.079**	ug/l	5.40	48.8	450000	45	P	
47	**Ti**	1	**0.011**	ug/l	0.06	189.7	4500	45	P	
51	**V**	1	**0.160**	ug/l	0.80	13.9	4500	74	P	
52	**Cr**	1	**19.300**	ug/l	96.50	1.9	4500	74	P	
55	**Mn**	1	**-0.099**	ug/l	-0.49	2.4	4500	74	P	
56	**Fe**	1	**0.251**	ug/l	1.26	7.7	450000	74	P	
59	**Co**	1	**0.000**	ug/l	0.00	1833.4	4500	74	P	
60	**Ni**	1	**-0.010**	ug/l	-0.05	21.2	4500	74	P	
63	**Cu**	1	**-0.031**	ug/l	-0.15	7.1	4500	74	P	
66	**Zn**	1	**-0.151**	ug/l	-0.75	6.6	4500	74	P	
75	**As**	1	**0.027**	ug/l	0.14	13.0	4500	74	P	
78	**Se**	1	**0.117**	ug/l	0.58	37.4	4500	74	P	
88	**Sr**	1	**0.008**	ug/l	0.04	227.4	4500	103	P	
95	**Mo**	1	**0.055**	ug/l	0.27	21.1	4500	103	P	
109	**Ag**	1	**-0.002**	ug/l	-0.01	76.3	4500	103	P	
111	**Cd**	1	**0.007**	ug/l	0.04	127.8	4500	103	P	
118	**Sn**	1	**0.096**	ug/l	0.48	19.4	4500	103	P	
123	**Sb**	1	**0.103**	ug/l	0.52	22.4	4500	103	P	
135	**Ba**	1	**-0.006**	ug/l	-0.03	174.9	4500	103	P	
200	**Hg**	1	**4.294**	ug/l	21.47	1.8	45	209	P	
205	**Tl**	1	**0.396**	ug/l	1.98	5.4	4500	209	P	
208	**Pb**	1	**0.000**	ug/l	0.00	3484.2	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	108.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78512	0.90	78990	**99.4**	30	-	125	
45	Sc	1	1558920	0.82	1431000	**108.9**	30	-	125	
74	Ge	1	3814179	1.25	3609000	**105.7**	30	-	125	
103	Rh	1	6078375	0.82	5970000	**101.8**	30	-	125	
165	Ho	1	2761993	0.76	2661000	**103.8**	30	-	125	
175	Lu	1	2210153	0.91	2076000	**106.5**	30	-	125	
209	Bi	1	2970274	1.62	2823000	**105.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\044SMPL.D\044SMPL.D#
Date Acquired: Jul 26 2011 12:06 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27472-A-3-A Vial Number: 2104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.007**	ug/l	0.04	24.8	900	6	P	
23	**Na**	1	**-14.080**	ug/l	-70.40	12.9	450000	45	P	
24	**Mg**	1	**0.328**	ug/l	1.64	14.3	450000	45	P	
27	**Al**	1	**1.419**	ug/l	7.10	6.3	450000	45	P	
31	**P**	1	**1.425**	ug/l	7.13	131.3	450000	45	P	
39	**K**	1	**-28.570**	ug/l	-142.85	17.2	450000	45	P	
43	**Ca**	1	**1.651**	ug/l	8.26	45.9	450000	45	P	
47	**Ti**	1	**38.070**	ug/l	190.35	2.9	4500	45	P	
51	**V**	1	**0.155**	ug/l	0.78	3.7	4500	74	P	
52	**Cr**	1	**0.073**	ug/l	0.36	20.5	4500	74	P	
55	**Mn**	1	**-0.062**	ug/l	-0.31	28.5	4500	74	P	
56	**Fe**	1	**0.345**	ug/l	1.72	14.1	450000	74	P	
59	**Co**	1	**0.024**	ug/l	0.12	9.4	4500	74	P	
60	**Ni**	1	**0.101**	ug/l	0.50	25.4	4500	74	P	
63	**Cu**	1	**-0.007**	ug/l	-0.03	87.2	4500	74	P	
66	**Zn**	1	**0.004**	ug/l	0.02	751.7	4500	74	P	
75	**As**	1	**0.033**	ug/l	0.17	40.6	4500	74	P	
78	**Se**	1	**0.056**	ug/l	0.28	85.2	4500	74	P	
88	**Sr**	1	**-0.003**	ug/l	-0.01	138.1	4500	103	P	
95	**Mo**	1	**0.030**	ug/l	0.15	31.9	4500	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	774.0	4500	103	P	
111	**Cd**	1	**0.010**	ug/l	0.05	57.8	4500	103	P	
118	**Sn**	1	**470.800**	ug/l	2,354.00	0.4	4500	103	A	
123	**Sb**	1	**0.064**	ug/l	0.32	30.9	4500	103	P	
135	**Ba**	1	**0.047**	ug/l	0.23	16.3	4500	103	P	
200	**Hg**	1	**0.012**	ug/l	0.06	38.3	45	209	P	
205	**Tl**	1	**0.149**	ug/l	0.75	17.7	4500	209	P	
208	**Pb**	1	**0.014**	ug/l	0.07	73.7	4500	209	P	
238	**U**	1	**-0.001**	ug/l	-0.01	44.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76970	0.40	78990	**97.4**	30	-	125	
45	Sc	1	1565410	3.19	1431000	**109.4**	30	-	125	
74	Ge	1	3793154	0.70	3609000	**105.1**	30	-	125	
103	Rh	1	6077941	0.24	5970000	**101.8**	30	-	125	
165	Ho	1	2765245	0.74	2661000	**103.9**	30	-	125	
175	Lu	1	2230268	2.45	2076000	**107.4**	30	-	125	
209	Bi	1	2960424	0.86	2823000	**104.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\045SMPL.D\045SMPL.D#
Date Acquired: Jul 26 2011 12:10 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-91182/7-A Vial Number: 2105
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.605**	ug/l	80.25	3.7	900	6	P	
23	**Na**	1	**294.100**	ug/l	14,705.00	2.8	450000	45	P	
24	**Mg**	1	**325.900**	ug/l	16,295.00	2.9	450000	45	P	
27	**Al**	1	**67.230**	ug/l	3,361.50	3.1	450000	45	P	
31	**P**	1	**304.700**	ug/l	15,235.00	3.2	450000	45	P	
39	**K**	1	**308.100**	ug/l	15,405.00	3.1	450000	45	P	
43	**Ca**	1	**2812.000**	ug/l	140,600.00	1.0	450000	45	P	
47	**Ti**	1	**76.120**	ug/l	3,806.00	1.4	4500	45	P	
51	**V**	1	**15.950**	ug/l	797.50	1.4	4500	74	P	
52	**Cr**	1	**6.401**	ug/l	320.05	1.6	4500	74	P	
55	**Mn**	1	**16.740**	ug/l	837.00	1.0	4500	74	P	
56	**Fe**	1	**357.600**	ug/l	17,880.00	1.8	450000	74	A	
59	**Co**	1	**15.710**	ug/l	785.50	0.7	4500	74	P	
60	**Ni**	1	**16.210**	ug/l	810.50	2.2	4500	74	P	
63	**Cu**	1	**8.113**	ug/l	405.65	1.0	4500	74	P	
66	**Zn**	1	**16.030**	ug/l	801.50	1.4	4500	74	P	
75	**As**	1	**64.310**	ug/l	3,215.50	1.3	4500	74	P	
78	**Se**	1	**65.500**	ug/l	3,275.00	1.0	4500	74	P	
88	**Sr**	1	**323.900**	ug/l	16,195.00	1.7	4500	103	A	
95	**Mo**	1	**75.520**	ug/l	3,776.00	0.9	4500	103	P	
109	**Ag**	1	**9.553**	ug/l	477.65	0.8	4500	103	P	
111	**Cd**	1	**1.631**	ug/l	81.55	3.2	4500	103	P	
118	**Sn**	1	**75.790**	ug/l	3,789.50	1.3	4500	103	P	
123	**Sb**	1	**45.730**	ug/l	2,286.50	0.8	4500	103	P	
135	**Ba**	1	**63.670**	ug/l	3,183.50	1.0	4500	103	P	
200	**Hg**	1	**0.763**	ug/l	38.14	0.5	45	209	P	
205	**Tl**	1	**67.430**	ug/l	3,371.50	0.5	4500	209	A	
208	**Pb**	1	**16.210**	ug/l	810.50	2.7	4500	209	P	
238	**U**	1	**61.750**	ug/l	3,087.50	2.2	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79271	0.44	78990	**100.4**	30	-	125	
45	Sc	1	1586364	3.01	1431000	**110.9**	30	-	125	
74	Ge	1	3873709	1.29	3609000	**107.3**	30	-	125	
103	Rh	1	6163294	0.92	5970000	**103.2**	30	-	125	
165	Ho	1	2756169	1.05	2661000	**103.6**	30	-	125	
175	Lu	1	2237804	1.64	2076000	**107.8**	30	-	125	
209	Bi	1	2963797	2.16	2823000	**105.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\046SMPL.D\046SMPL.D#
Date Acquired: Jul 26 2011 12:15 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-91182/8-A Vial Number: 2106
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.543**	ug/l	77.15	6.5	900	6	P	
23	**Na**	1	**295.600**	ug/l	14,780.00	2.8	450000	45	P	
24	**Mg**	1	**328.100**	ug/l	16,405.00	2.5	450000	45	P	
27	**Al**	1	**68.930**	ug/l	3,446.50	1.1	450000	45	P	
31	**P**	1	**309.900**	ug/l	15,495.00	3.1	450000	45	P	
39	**K**	1	**303.600**	ug/l	15,180.00	3.2	450000	45	P	
43	**Ca**	1	**2765.000**	ug/l	138,250.00	1.3	450000	45	P	
47	**Ti**	1	**76.540**	ug/l	3,827.00	2.1	4500	45	P	
51	**V**	1	**15.960**	ug/l	798.00	2.0	4500	74	P	
52	**Cr**	1	**6.281**	ug/l	314.05	1.1	4500	74	P	
55	**Mn**	1	**16.560**	ug/l	828.00	1.0	4500	74	P	
56	**Fe**	1	**358.400**	ug/l	17,920.00	0.8	450000	74	A	
59	**Co**	1	**15.840**	ug/l	792.00	1.8	4500	74	P	
60	**Ni**	1	**16.290**	ug/l	814.50	2.8	4500	74	P	
63	**Cu**	1	**8.145**	ug/l	407.25	1.4	4500	74	P	
66	**Zn**	1	**16.060**	ug/l	803.00	1.3	4500	74	P	
75	**As**	1	**64.160**	ug/l	3,208.00	1.5	4500	74	P	
78	**Se**	1	**65.070**	ug/l	3,253.50	1.5	4500	74	P	
88	**Sr**	1	**329.900**	ug/l	16,495.00	1.4	4500	103	A	
95	**Mo**	1	**76.090**	ug/l	3,804.50	0.7	4500	103	P	
109	**Ag**	1	**9.537**	ug/l	476.85	1.6	4500	103	P	
111	**Cd**	1	**1.602**	ug/l	80.10	0.7	4500	103	P	
118	**Sn**	1	**77.040**	ug/l	3,852.00	1.0	4500	103	P	
123	**Sb**	1	**46.660**	ug/l	2,333.00	1.1	4500	103	P	
135	**Ba**	1	**65.030**	ug/l	3,251.50	1.0	4500	103	P	
200	**Hg**	1	**0.773**	ug/l	38.67	3.8	45	209	P	
205	**Tl**	1	**66.720**	ug/l	3,336.00	1.7	4500	209	A	
208	**Pb**	1	**16.210**	ug/l	810.50	1.0	4500	209	P	
238	**U**	1	**63.050**	ug/l	3,152.50	1.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80513	1.11	78990	**101.9**	30	-	125	
45	Sc	1	1597601	1.79	1431000	**111.6**	30	-	125	
74	Ge	1	3910202	0.93	3609000	**108.3**	30	-	125	
103	Rh	1	6148761	0.32	5970000	**103.0**	30	-	125	
165	Ho	1	2805267	1.35	2661000	**105.4**	30	-	125	
175	Lu	1	2250367	0.20	2076000	**108.4**	30	-	125	
209	Bi	1	2982556	0.63	2823000	**105.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\047SMPL.D\047SMPL.D#
Date Acquired: Jul 26 2011 12:20 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-91182/9-A Vial Number: 2107
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.633**	ug/l	81.65	5.2	900	6	P	
23	**Na**	1	**312.500**	ug/l	15,625.00	2.5	450000	45	P	
24	**Mg**	1	**347.300**	ug/l	17,365.00	2.6	450000	45	P	
27	**Al**	1	**71.270**	ug/l	3,563.50	1.5	450000	45	P	
31	**P**	1	**337.100**	ug/l	16,855.00	2.9	450000	45	P	
39	**K**	1	**324.400**	ug/l	16,220.00	3.7	450000	45	P	
43	**Ca**	1	**2926.000**	ug/l	146,300.00	3.4	450000	45	P	
47	**Ti**	1	**81.100**	ug/l	4,055.00	1.7	4500	45	P	
51	**V**	1	**16.600**	ug/l	830.00	1.2	4500	74	P	
52	**Cr**	1	**6.545**	ug/l	327.25	2.0	4500	74	P	
55	**Mn**	1	**17.300**	ug/l	865.00	1.2	4500	74	P	
56	**Fe**	1	**368.900**	ug/l	18,445.00	1.4	450000	74	A	
59	**Co**	1	**16.540**	ug/l	827.00	1.4	4500	74	P	
60	**Ni**	1	**16.980**	ug/l	849.00	1.7	4500	74	P	
63	**Cu**	1	**8.567**	ug/l	428.35	0.3	4500	74	P	
66	**Zn**	1	**16.730**	ug/l	836.50	1.4	4500	74	P	
75	**As**	1	**66.620**	ug/l	3,331.00	0.4	4500	74	P	
78	**Se**	1	**67.800**	ug/l	3,390.00	1.5	4500	74	P	
88	**Sr**	1	**346.300**	ug/l	17,315.00	0.5	4500	103	A	
95	**Mo**	1	**80.270**	ug/l	4,013.50	1.2	4500	103	P	
109	**Ag**	1	**9.999**	ug/l	499.95	1.4	4500	103	P	
111	**Cd**	1	**1.638**	ug/l	81.90	4.4	4500	103	P	
118	**Sn**	1	**81.190**	ug/l	4,059.50	0.9	4500	103	P	
123	**Sb**	1	**48.700**	ug/l	2,435.00	0.4	4500	103	P	
135	**Ba**	1	**68.160**	ug/l	3,408.00	1.3	4500	103	P	
200	**Hg**	1	**0.824**	ug/l	41.20	2.8	45	209	P	
205	**Tl**	1	**70.280**	ug/l	3,514.00	2.4	4500	209	A	
208	**Pb**	1	**17.140**	ug/l	857.00	2.4	4500	209	P	
238	**U**	1	**66.020**	ug/l	3,301.00	1.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80789	1.12	78990	**102.3**	30	-	125	
45	Sc	1	1579009	2.12	1431000	**110.3**	30	-	125	
74	Ge	1	3904614	0.69	3609000	**108.2**	30	-	125	
103	Rh	1	6118507	0.94	5970000	**102.5**	30	-	125	
165	Ho	1	2797480	1.05	2661000	**105.1**	30	-	125	
175	Lu	1	2226375	0.95	2076000	**107.2**	30	-	125	
209	Bi	1	2941793	1.55	2823000	**104.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\049SMPL.D\049SMPL.D#
Date Acquired: Jul 26 2011 12:30 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.970**	ug/l	48.97	2.2	900	6	P	
23	**Na**	1	**4867.000**	ug/l	4,867.00	1.0	450000	45	A	
24	**Mg**	1	**4850.000**	ug/l	4,850.00	0.9	450000	45	A	
27	**Al**	1	**504.500**	ug/l	504.50	0.8	450000	45	P	
31	**P**	1	**4955.000**	ug/l	4,955.00	0.6	450000	45	P	
39	**K**	1	**4989.000**	ug/l	4,989.00	1.1	450000	45	A	
43	**Ca**	1	**5019.000**	ug/l	5,019.00	0.3	450000	45	P	
47	**Ti**	1	**49.380**	ug/l	49.38	1.1	4500	45	P	
51	**V**	1	**48.840**	ug/l	48.84	0.7	4500	74	P	
52	**Cr**	1	**48.010**	ug/l	48.01	0.9	4500	74	P	
55	**Mn**	1	**49.900**	ug/l	49.90	1.0	4500	74	P	
56	**Fe**	1	**4841.000**	ug/l	4,841.00	0.9	450000	74	A	
59	**Co**	1	**47.820**	ug/l	47.82	1.2	4500	74	P	
60	**Ni**	1	**47.740**	ug/l	47.74	1.6	4500	74	P	
63	**Cu**	1	**48.350**	ug/l	48.35	1.9	4500	74	P	
66	**Zn**	1	**48.350**	ug/l	48.35	1.3	4500	74	P	
75	**As**	1	**49.370**	ug/l	49.37	1.0	4500	74	P	
78	**Se**	1	**50.880**	ug/l	50.88	1.4	4500	74	P	
88	**Sr**	1	**51.480**	ug/l	51.48	0.9	4500	103	P	
95	**Mo**	1	**49.270**	ug/l	49.27	0.9	4500	103	P	
109	**Ag**	1	**49.500**	ug/l	49.50	0.3	4500	103	P	
111	**Cd**	1	**49.680**	ug/l	49.68	0.7	4500	103	P	
118	**Sn**	1	**50.480**	ug/l	50.48	0.2	4500	103	P	
123	**Sb**	1	**50.480**	ug/l	50.48	0.3	4500	103	P	
135	**Ba**	1	**50.390**	ug/l	50.39	0.6	4500	103	P	
200	**Hg**	1	**2.399**	ug/l	2.40	1.6	45	209	P	
205	**Tl**	1	**47.140**	ug/l	47.14	3.7	4500	209	A	
208	**Pb**	1	**48.920**	ug/l	48.92	2.1	4500	209	P	
238	**U**	1	**49.340**	ug/l	49.34	1.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75885	1.61	78990	**96.1**	30	-	125	
45	Sc	1	1553194	1.25	1431000	**108.5**	30	-	125	
74	Ge	1	3857370	0.98	3609000	**106.9**	30	-	125	
103	Rh	1	5907191	0.59	5970000	**98.9**	30	-	125	
165	Ho	1	2744129	1.71	2661000	**103.1**	30	-	125	
175	Lu	1	2217876	2.39	2076000	**106.8**	30	-	125	
209	Bi	1	2905120	1.64	2823000	**102.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\050SMPL.D\050SMPL.D#
Date Acquired: Jul 26 2011 12:34 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	323.4	900	6	P	
23	**Na**	1	**-18.620**	ug/l	-18.62	2.2	450000	45	P	
24	**Mg**	1	**-0.097**	ug/l	-0.10	52.6	450000	45	P	
27	**Al**	1	**0.028**	ug/l	0.03	134.2	450000	45	P	
31	**P**	1	**-0.001**	ug/l	0.00	301980.0	450000	45	P	
39	**K**	1	**-29.840**	ug/l	-29.84	7.4	450000	45	P	
43	**Ca**	1	**-0.617**	ug/l	-0.62	128.1	450000	45	P	
47	**Ti**	1	**0.022**	ug/l	0.02	81.6	4500	45	P	
51	**V**	1	**0.057**	ug/l	0.06	14.5	4500	74	P	
52	**Cr**	1	**-0.015**	ug/l	-0.01	47.5	4500	74	P	
55	**Mn**	1	**-0.033**	ug/l	-0.03	24.7	4500	74	P	
56	**Fe**	1	**1.169**	ug/l	1.17	1.1	450000	74	P	
59	**Co**	1	**0.000**	ug/l	0.00	11998.0	4500	74	P	
60	**Ni**	1	**-0.030**	ug/l	-0.03	18.7	4500	74	P	
63	**Cu**	1	**-0.038**	ug/l	-0.04	24.2	4500	74	P	
66	**Zn**	1	**-0.041**	ug/l	-0.04	70.2	4500	74	P	
75	**As**	1	**0.009**	ug/l	0.01	20.2	4500	74	P	
78	**Se**	1	**0.055**	ug/l	0.06	75.9	4500	74	P	
88	**Sr**	1	**-0.009**	ug/l	-0.01	143.9	4500	103	P	
95	**Mo**	1	**0.043**	ug/l	0.04	42.4	4500	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	97.3	4500	103	P	
111	**Cd**	1	**0.009**	ug/l	0.01	157.3	4500	103	P	
118	**Sn**	1	**0.383**	ug/l	0.38	9.2	4500	103	P	
123	**Sb**	1	**0.105**	ug/l	0.10	30.9	4500	103	P	
135	**Ba**	1	**-0.014**	ug/l	-0.01	126.3	4500	103	P	
200	**Hg**	1	**0.015**	ug/l	0.01	18.4	45	209	P	
205	**Tl**	1	**0.207**	ug/l	0.21	8.9	4500	209	P	
208	**Pb**	1	**-0.001**	ug/l	0.00	519.6	4500	209	P	
238	**U**	1	**0.011**	ug/l	0.01	3.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78101	0.55	78990	**98.9**	30	-	125	
45	Sc	1	1583798	0.90	1431000	**110.7**	30	-	125	
74	Ge	1	3880369	0.54	3609000	**107.5**	30	-	125	
103	Rh	1	6174485	1.35	5970000	**103.4**	30	-	125	
165	Ho	1	2778180	0.99	2661000	**104.4**	30	-	125	
175	Lu	1	2241744	1.77	2076000	**108.0**	30	-	125	
209	Bi	1	2999349	0.31	2823000	**106.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\052SMPL.D\052SMPL.D#
Date Acquired: Jul 26 2011 12:44 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-91183/13-A Vial Number: 2301
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.03	215.4	900	6	P	
23	**Na**	1	**-17.190**	ug/l	-171.90	5.2	450000	45	P	
24	**Mg**	1	**0.132**	ug/l	1.32	35.5	450000	45	P	
27	**Al**	1	**2.580**	ug/l	25.80	4.9	450000	45	P	
31	**P**	1	**0.948**	ug/l	9.48	164.6	450000	45	P	
39	**K**	1	**-28.000**	ug/l	-280.00	10.1	450000	45	P	
43	**Ca**	1	**8.174**	ug/l	81.74	23.5	450000	45	P	
47	**Ti**	1	**0.026**	ug/l	0.26	34.3	4500	45	P	
51	**V**	1	**-0.115**	ug/l	-1.15	9.4	4500	74	P	
52	**Cr**	1	**-0.021**	ug/l	-0.21	4.2	4500	74	P	
55	**Mn**	1	**-0.085**	ug/l	-0.85	4.8	4500	74	P	
56	**Fe**	1	**0.277**	ug/l	2.77	26.3	450000	74	P	
59	**Co**	1	**-0.003**	ug/l	-0.03	69.0	4500	74	P	
60	**Ni**	1	**0.002**	ug/l	0.02	423.6	4500	74	P	
63	**Cu**	1	**-0.015**	ug/l	-0.15	90.4	4500	74	P	
66	**Zn**	1	**0.128**	ug/l	1.28	21.0	4500	74	P	
75	**As**	1	**-0.016**	ug/l	-0.16	52.2	4500	74	P	
78	**Se**	1	**0.139**	ug/l	1.39	38.4	4500	74	P	
88	**Sr**	1	**0.010**	ug/l	0.10	60.0	4500	103	P	
95	**Mo**	1	**0.013**	ug/l	0.13	19.1	4500	103	P	
109	**Ag**	1	**-0.001**	ug/l	-0.01	90.9	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.01	338.3	4500	103	P	
118	**Sn**	1	**0.340**	ug/l	3.40	12.1	4500	103	P	
123	**Sb**	1	**0.030**	ug/l	0.30	35.8	4500	103	P	
135	**Ba**	1	**0.013**	ug/l	0.13	123.3	4500	103	P	
200	**Hg**	1	**0.009**	ug/l	0.09	25.5	45	209	P	
205	**Tl**	1	**0.088**	ug/l	0.88	14.7	4500	209	P	
208	**Pb**	1	**0.018**	ug/l	0.18	58.5	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.02	15.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80025	0.33	78990	**101.3**	30	-	125	
45	Sc	1	1599088	1.91	1431000	**111.7**	30	-	125	
74	Ge	1	3911949	0.76	3609000	**108.4**	30	-	125	
103	Rh	1	6077388	1.22	5970000	**101.8**	30	-	125	
165	Ho	1	2795842	0.72	2661000	**105.1**	30	-	125	
175	Lu	1	2248768	1.43	2076000	**108.3**	30	-	125	
209	Bi	1	2978333	1.73	2823000	**105.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\053SMPL.D\053SMPL.D#
Date Acquired: Jul 26 2011 12:48 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-91183/14-A Vial Number: 2302
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.930**	ug/l	96.50	1.7	900	6	P	
23	**Na**	1	**385.100**	ug/l	19,255.00	3.7	450000	45	A	
24	**Mg**	1	**409.300**	ug/l	20,465.00	0.6	450000	45	P	
27	**Al**	1	**80.920**	ug/l	4,046.00	0.9	450000	45	P	
31	**P**	1	**381.700**	ug/l	19,085.00	0.7	450000	45	P	
39	**K**	1	**389.400**	ug/l	19,470.00	1.3	450000	45	P	
43	**Ca**	1	**374.500**	ug/l	18,725.00	3.5	450000	45	P	
47	**Ti**	1	**95.800**	ug/l	4,790.00	0.8	4500	45	P	
51	**V**	1	**19.820**	ug/l	991.00	1.4	4500	74	P	
52	**Cr**	1	**7.721**	ug/l	386.05	0.8	4500	74	P	
55	**Mn**	1	**20.220**	ug/l	1,011.00	0.8	4500	74	P	
56	**Fe**	1	**439.600**	ug/l	21,980.00	1.3	450000	74	A	
59	**Co**	1	**19.630**	ug/l	981.50	1.0	4500	74	P	
60	**Ni**	1	**19.650**	ug/l	982.50	0.5	4500	74	P	
63	**Cu**	1	**9.966**	ug/l	498.30	1.1	4500	74	P	
66	**Zn**	1	**19.810**	ug/l	990.50	1.8	4500	74	P	
75	**As**	1	**78.910**	ug/l	3,945.50	1.1	4500	74	P	
78	**Se**	1	**81.200**	ug/l	4,060.00	1.6	4500	74	P	
88	**Sr**	1	**0.005**	ug/l	0.24	111.0	4500	103	P	
95	**Mo**	1	**94.680**	ug/l	4,734.00	1.1	4500	103	P	
109	**Ag**	1	**11.930**	ug/l	596.50	1.3	4500	103	P	
111	**Cd**	1	**2.059**	ug/l	102.95	3.0	4500	103	P	
118	**Sn**	1	**98.540**	ug/l	4,927.00	0.5	4500	103	P	
123	**Sb**	1	**57.170**	ug/l	2,858.50	0.6	4500	103	P	
135	**Ba**	1	**78.950**	ug/l	3,947.50	0.5	4500	103	P	
200	**Hg**	1	**0.918**	ug/l	45.89	5.4	45	209	P	
205	**Tl**	1	**72.400**	ug/l	3,620.00	4.9	4500	209	A	
208	**Pb**	1	**19.720**	ug/l	986.00	2.2	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.02	274.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77709	1.82	78990	**98.4**	30	-	125	
45	Sc	1	1558550	0.83	1431000	**108.9**	30	-	125	
74	Ge	1	3849802	1.20	3609000	**106.7**	30	-	125	
103	Rh	1	6123165	0.85	5970000	**102.6**	30	-	125	
165	Ho	1	2788690	1.10	2661000	**104.8**	30	-	125	
175	Lu	1	2229419	0.57	2076000	**107.4**	30	-	125	
209	Bi	1	2993849	2.20	2823000	**106.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\054SMPL.D\054SMPL.D#
Date Acquired: Jul 26 2011 12:52 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-91183/15-A Vial Number: 2303
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.965**	ug/l	98.25	1.6	900	6	P	
23	Na	1	**382.200**	ug/l	19,110.00	2.1	450000	45	A	
24	Mg	1	**404.100**	ug/l	20,205.00	1.3	450000	45	P	
27	Al	1	**80.550**	ug/l	4,027.50	1.7	450000	45	P	
31	P	1	**378.600**	ug/l	18,930.00	1.5	450000	45	P	
39	K	1	**385.000**	ug/l	19,250.00	1.6	450000	45	P	
43	Ca	1	**371.100**	ug/l	18,555.00	2.2	450000	45	P	
47	Ti	1	**95.070**	ug/l	4,753.50	1.8	4500	45	P	
51	V	1	**19.900**	ug/l	995.00	0.9	4500	74	P	
52	Cr	1	**8.002**	ug/l	400.10	1.7	4500	74	P	
55	Mn	1	**20.140**	ug/l	1,007.00	0.5	4500	74	P	
56	Fe	1	**442.600**	ug/l	22,130.00	1.5	450000	74	A	
59	Co	1	**19.650**	ug/l	982.50	0.7	4500	74	P	
60	Ni	1	**19.980**	ug/l	999.00	0.3	4500	74	P	
63	Cu	1	**10.100**	ug/l	505.00	0.7	4500	74	P	
66	Zn	1	**21.960**	ug/l	1,098.00	1.5	4500	74	P	
75	As	1	**79.250**	ug/l	3,962.50	1.6	4500	74	P	
78	Se	1	**80.790**	ug/l	4,039.50	0.8	4500	74	P	
88	Sr	1	**0.023**	ug/l	1.14	40.2	4500	103	P	
95	Mo	1	**95.530**	ug/l	4,776.50	2.4	4500	103	P	
109	Ag	1	**11.940**	ug/l	597.00	1.5	4500	103	P	
111	Cd	1	**1.964**	ug/l	98.20	4.8	4500	103	P	
118	Sn	1	**99.890**	ug/l	4,994.50	1.8	4500	103	P	
123	Sb	1	**57.710**	ug/l	2,885.50	1.6	4500	103	P	
135	Ba	1	**79.800**	ug/l	3,990.00	1.7	4500	103	P	
200	Hg	1	**0.933**	ug/l	46.63	3.2	45	209	P	
205	Tl	1	**74.430**	ug/l	3,721.50	7.1	4500	209	A	
208	Pb	1	**19.860**	ug/l	993.00	0.9	4500	209	P	
238	U	1	**0.001**	ug/l	0.05	91.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76137	0.43	78990	**96.4**	30	-	125	
45	Sc	1	1578477	0.89	1431000	**110.3**	30	-	125	
74	Ge	1	3838114	0.40	3609000	**106.3**	30	-	125	
103	Rh	1	6093331	1.30	5970000	**102.1**	30	-	125	
165	Ho	1	2776252	1.49	2661000	**104.3**	30	-	125	
175	Lu	1	2244395	0.77	2076000	**108.1**	30	-	125	
209	Bi	1	2986842	1.51	2823000	**105.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\055SMPL.D\055SMPL.D#
Date Acquired: Jul 26 2011 12:55 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-91183/16-A Vial Number: 2304
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**44.870**	ug/l	897.40	0.7	900	6	P	
23	**Na**	1	**355.400**	ug/l	7,108.00	1.1	450000	45	A	
24	**Mg**	1	**1490.000**	ug/l	29,800.00	1.4	450000	45	A	
27	**Al**	1	**4119.000**	ug/l	82,380.00	0.8	450000	45	A	
31	**P**	1	**254.800**	ug/l	5,096.00	3.6	450000	45	P	
39	**K**	1	**1331.000**	ug/l	26,620.00	0.5	450000	45	A	
43	**Ca**	1	**3712.000**	ug/l	74,240.00	1.5	450000	45	P	
47	**Ti**	1	**118.500**	ug/l	2,370.00	4.7	4500	45	P	
51	**V**	1	**57.420**	ug/l	1,148.40	2.2	4500	74	P	
52	**Cr**	1	**47.060**	ug/l	941.20	1.9	4500	74	P	
55	**Mn**	1	**243.700**	ug/l	4,874.00	0.7	4500	74	A	
56	**Fe**	1	**7025.000**	ug/l	140,500.00	3.1	450000	74	A	
59	**Co**	1	**71.470**	ug/l	1,429.40	1.1	4500	74	A	
60	**Ni**	1	**56.390**	ug/l	1,127.80	2.2	4500	74	P	
63	**Cu**	1	**36.560**	ug/l	731.20	2.0	4500	74	P	
66	**Zn**	1	**153.900**	ug/l	3,078.00	1.3	4500	74	P	
75	**As**	1	**56.240**	ug/l	1,124.80	1.9	4500	74	P	
78	**Se**	1	**113.700**	ug/l	2,274.00	1.7	4500	74	P	
88	**Sr**	1	**60.000**	ug/l	1,200.00	1.3	4500	103	P	
95	**Mo**	1	**46.620**	ug/l	932.40	0.3	4500	103	P	
109	**Ag**	1	**26.370**	ug/l	527.40	1.1	4500	103	P	
111	**Cd**	1	**57.680**	ug/l	1,153.60	1.2	4500	103	P	
118	**Sn**	1	**71.200**	ug/l	1,424.00	0.8	4500	103	P	
123	**Sb**	1	**113.400**	ug/l	2,268.00	0.2	4500	103	P	
135	**Ba**	1	**169.800**	ug/l	3,396.00	0.6	4500	103	P	
200	**Hg**	1	**8.117**	ug/l	162.34	0.5	45	209	P	
205	**Tl**	1	**88.020**	ug/l	1,760.40	7.6	4500	209	A	
208	**Pb**	1	**84.330**	ug/l	1,686.60	1.3	4500	209	A	
238	**U**	1	**0.546**	ug/l	10.91	0.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76203	0.33	78990	**96.5**	30	-	125	
45	Sc	1	1561180	1.24	1431000	**109.1**	30	-	125	
74	Ge	1	3840778	2.06	3609000	**106.4**	30	-	125	
103	Rh	1	5991941	0.79	5970000	**100.4**	30	-	125	
165	Ho	1	2780193	0.50	2661000	**104.5**	30	-	125	
175	Lu	1	2230214	0.38	2076000	**107.4**	30	-	125	
209	Bi	1	2921343	0.74	2823000	**103.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\056SMPL.D\056SMPL.D#
Date Acquired: Jul 26 2011 12:59 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**48.250**	ug/l	48.25	1.6	900	6	P	
23	Na	1	**4781.000**	ug/l	4,781.00	1.6	450000	45	A	
24	Mg	1	**4871.000**	ug/l	4,871.00	2.5	450000	45	A	
27	Al	1	**496.000**	ug/l	496.00	2.5	450000	45	P	
31	P	1	**4874.000**	ug/l	4,874.00	2.6	450000	45	P	
39	K	1	**4933.000**	ug/l	4,933.00	2.7	450000	45	A	
43	Ca	1	**4953.000**	ug/l	4,953.00	2.4	450000	45	P	
47	Ti	1	**48.430**	ug/l	48.43	2.6	4500	45	P	
51	V	1	**48.470**	ug/l	48.47	2.0	4500	74	P	
52	Cr	1	**48.040**	ug/l	48.04	1.7	4500	74	P	
55	Mn	1	**49.480**	ug/l	49.48	1.6	4500	74	P	
56	Fe	1	**4834.000**	ug/l	4,834.00	0.5	450000	74	A	
59	Co	1	**47.660**	ug/l	47.66	1.7	4500	74	P	
60	Ni	1	**47.850**	ug/l	47.85	2.8	4500	74	P	
63	Cu	1	**47.720**	ug/l	47.72	1.6	4500	74	P	
66	Zn	1	**48.450**	ug/l	48.45	1.8	4500	74	P	
75	As	1	**49.080**	ug/l	49.08	0.8	4500	74	P	
78	Se	1	**50.890**	ug/l	50.89	1.6	4500	74	P	
88	Sr	1	**51.190**	ug/l	51.19	0.6	4500	103	P	
95	Mo	1	**48.770**	ug/l	48.77	0.7	4500	103	P	
109	Ag	1	**49.260**	ug/l	49.26	0.4	4500	103	P	
111	Cd	1	**49.430**	ug/l	49.43	0.5	4500	103	P	
118	Sn	1	**50.270**	ug/l	50.27	1.0	4500	103	P	
123	Sb	1	**50.030**	ug/l	50.03	0.4	4500	103	P	
135	Ba	1	**50.450**	ug/l	50.45	1.2	4500	103	P	
200	Hg	1	**2.399**	ug/l	2.40	2.3	45	209	P	
205	Tl	1	**47.860**	ug/l	47.86	6.5	4500	209	A	
208	Pb	1	**49.320**	ug/l	49.32	1.1	4500	209	P	
238	U	1	**49.470**	ug/l	49.47	0.7	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76216	0.64	78990	**96.5**	30	-	125	
45	Sc	1	1602315	2.54	1431000	**112.0**	30	-	125	
74	Ge	1	3898911	1.35	3609000	**108.0**	30	-	125	
103	Rh	1	5987184	0.75	5970000	**100.3**	30	-	125	
165	Ho	1	2765962	1.02	2661000	**103.9**	30	-	125	
175	Lu	1	2248635	1.00	2076000	**108.3**	30	-	125	
209	Bi	1	2912342	0.86	2823000	**103.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\057SMPL.D\057SMPL.D#
Date Acquired: Jul 26 2011 01:03 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.00	113.7	900	6	P	
23	**Na**	1	**-19.010**	ug/l	-19.01	2.1	450000	45	P	
24	**Mg**	1	**-0.052**	ug/l	-0.05	42.9	450000	45	P	
27	**Al**	1	**0.078**	ug/l	0.08	172.7	450000	45	P	
31	**P**	1	**0.364**	ug/l	0.36	561.8	450000	45	P	
39	**K**	1	**-31.670**	ug/l	-31.67	9.1	450000	45	P	
43	**Ca**	1	**0.143**	ug/l	0.14	784.6	450000	45	P	
47	**Ti**	1	**0.032**	ug/l	0.03	24.2	4500	45	P	
51	**V**	1	**0.059**	ug/l	0.06	24.2	4500	74	P	
52	**Cr**	1	**-0.022**	ug/l	-0.02	53.2	4500	74	P	
55	**Mn**	1	**-0.036**	ug/l	-0.04	69.0	4500	74	P	
56	**Fe**	1	**2.091**	ug/l	2.09	2.9	450000	74	P	
59	**Co**	1	**0.000**	ug/l	0.00	3143.1	4500	74	P	
60	**Ni**	1	**-0.029**	ug/l	-0.03	9.4	4500	74	P	
63	**Cu**	1	**-0.031**	ug/l	-0.03	10.8	4500	74	P	
66	**Zn**	1	**-0.022**	ug/l	-0.02	109.2	4500	74	P	
75	**As**	1	**0.010**	ug/l	0.01	84.1	4500	74	P	
78	**Se**	1	**0.107**	ug/l	0.11	69.3	4500	74	P	
88	**Sr**	1	**-0.004**	ug/l	0.00	151.1	4500	103	P	
95	**Mo**	1	**0.073**	ug/l	0.07	7.3	4500	103	P	
109	**Ag**	1	**-0.002**	ug/l	0.00	68.5	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.00	552.2	4500	103	P	
118	**Sn**	1	**0.392**	ug/l	0.39	15.2	4500	103	P	
123	**Sb**	1	**0.082**	ug/l	0.08	37.9	4500	103	P	
135	**Ba**	1	**0.005**	ug/l	0.00	594.8	4500	103	P	
200	**Hg**	1	**0.039**	ug/l	0.04	4.9	45	209	P	
205	**Tl**	1	**0.486**	ug/l	0.49	6.5	4500	209	P	
208	**Pb**	1	**-0.004**	ug/l	0.00	288.1	4500	209	P	
238	**U**	1	**0.014**	ug/l	0.01	8.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78839	1.62	78990	**99.8**	30	-	125	
45	Sc	1	1610200	2.52	1431000	**112.5**	30	-	125	
74	Ge	1	3947231	1.15	3609000	**109.4**	30	-	125	
103	Rh	1	6132550	0.64	5970000	**102.7**	30	-	125	
165	Ho	1	2800575	1.41	2661000	**105.2**	30	-	125	
175	Lu	1	2249537	0.05	2076000	**108.4**	30	-	125	
209	Bi	1	3023014	1.54	2823000	**107.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\058SMPL.D\058SMPL.D#
Date Acquired: Jul 26 2011 01:07 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-2-B SD Vial Number: 2401
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.127**	ug/l	6.36	19.9	900	6	P	
23	**Na**	1	**17.070**	ug/l	853.50	35.4	450000	45	P	
24	**Mg**	1	**3823.000**	ug/l	191,150.00	2.4	450000	45	A	
27	**Al**	1	**7993.000**	ug/l	399,650.00	0.9	450000	45	A	
31	**P**	1	**281.900**	ug/l	14,095.00	2.4	450000	45	P	
39	**K**	1	**197.100**	ug/l	9,855.00	5.9	450000	45	P	
43	**Ca**	1	**584.100**	ug/l	29,205.00	5.1	450000	45	P	
47	**Ti**	1	**299.600**	ug/l	14,980.00	1.4	4500	45	P	
51	**V**	1	**22.120**	ug/l	1,106.00	2.2	4500	74	P	
52	**Cr**	1	**20.920**	ug/l	1,046.00	1.0	4500	74	P	
55	**Mn**	1	**309.100**	ug/l	15,455.00	0.9	4500	74	A	
56	**Fe**	1	**10490.000**	ug/l	524,500.00	1.0	450000	74	A	
59	**Co**	1	**5.835**	ug/l	291.75	1.4	4500	74	P	
60	**Ni**	1	**32.030**	ug/l	1,601.50	1.6	4500	74	P	
63	**Cu**	1	**19.930**	ug/l	996.50	0.9	4500	74	P	
66	**Zn**	1	**19.750**	ug/l	987.50	2.5	4500	74	P	
75	**As**	1	**3.111**	ug/l	155.55	1.1	4500	74	P	
78	**Se**	1	**0.343**	ug/l	17.16	26.8	4500	74	P	
88	**Sr**	1	**2.393**	ug/l	119.65	1.3	4500	103	P	
95	**Mo**	1	**0.192**	ug/l	9.60	2.7	4500	103	P	
109	**Ag**	1	**0.039**	ug/l	1.95	14.4	4500	103	P	
111	**Cd**	1	**0.084**	ug/l	4.20	8.8	4500	103	P	
118	**Sn**	1	**0.811**	ug/l	40.53	0.9	4500	103	P	
123	**Sb**	1	**0.119**	ug/l	5.95	22.7	4500	103	P	
135	**Ba**	1	**18.180**	ug/l	909.00	3.8	4500	103	P	
200	**Hg**	1	**0.075**	ug/l	3.76	4.3	45	209	P	
205	**Tl**	1	**0.267**	ug/l	13.35	6.5	4500	209	P	
208	**Pb**	1	**3.054**	ug/l	152.70	2.1	4500	209	P	
238	**U**	1	**0.091**	ug/l	4.57	5.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	80194	1.12	78990	**101.5**	30 - 125	
45	Sc	1	1614748	1.00	1431000	**112.8**	30 - 125	
74	Ge	1	3922746	0.84	3609000	**108.7**	30 - 125	
103	Rh	1	6026273	0.38	5970000	**100.9**	30 - 125	
165	Ho	1	2766559	0.63	2661000	**104.0**	30 - 125	
175	Lu	1	2222055	1.04	2076000	**107.0**	30 - 125	
209	Bi	1	2885608	1.13	2823000	**102.2**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\059SMPL.D\059SMPL.D#
Date Acquired: Jul 26 2011 01:10 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-2-B Vial Number: 2402
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.619**	ug/l	6.19	2.7	900	6	P	
23	**Na**	1	**126.300**	ug/l	1,263.00	1.6	450000	45	P	
24	**Mg**	1	**18550.000**	ug/l	185,500.00	1.0	450000	45	A	
27	**Al**	1	**39490.000**	ug/l	394,900.00	1.0	450000	45	A	
31	**P**	1	**1407.000**	ug/l	14,070.00	1.8	450000	45	P	
39	**K**	1	**1056.000**	ug/l	10,560.00	0.5	450000	45	A	
43	**Ca**	1	**2911.000**	ug/l	29,110.00	1.5	450000	45	P	
47	**Ti**	1	**1499.000**	ug/l	14,990.00	1.0	4500	45	P	
51	**V**	1	**113.700**	ug/l	1,137.00	1.4	4500	74	A	
52	**Cr**	1	**108.000**	ug/l	1,080.00	2.3	4500	74	A	
55	**Mn**	1	**1507.000**	ug/l	15,070.00	1.6	4500	74	A	
56	**Fe**	1	**53860.000**	ug/l	538,600.00	1.0	450000	74	A	
59	**Co**	1	**29.560**	ug/l	295.60	1.7	4500	74	P	
60	**Ni**	1	**159.900**	ug/l	1,599.00	1.4	4500	74	P	
63	**Cu**	1	**98.590**	ug/l	985.90	1.3	4500	74	P	
66	**Zn**	1	**102.000**	ug/l	1,020.00	1.5	4500	74	P	
75	**As**	1	**16.370**	ug/l	163.70	2.6	4500	74	P	
78	**Se**	1	**1.176**	ug/l	11.76	8.9	4500	74	P	
88	**Sr**	1	**12.170**	ug/l	121.70	3.1	4500	103	P	
95	**Mo**	1	**0.912**	ug/l	9.12	6.7	4500	103	P	
109	**Ag**	1	**0.200**	ug/l	2.00	7.2	4500	103	P	
111	**Cd**	1	**0.507**	ug/l	5.07	7.2	4500	103	P	
118	**Sn**	1	**3.203**	ug/l	32.03	5.1	4500	103	P	
123	**Sb**	1	**0.457**	ug/l	4.57	8.1	4500	103	P	
135	**Ba**	1	**90.140**	ug/l	901.40	2.0	4500	103	P	
200	**Hg**	1	**0.187**	ug/l	1.87	3.3	45	209	P	
205	**Tl**	1	**0.293**	ug/l	2.93	11.8	4500	209	P	
208	**Pb**	1	**15.350**	ug/l	153.50	0.9	4500	209	P	
238	**U**	1	**0.442**	ug/l	4.42	3.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	76824	1.99	78990	**97.3**	30 - 125	
45	Sc	1	1602129	0.47	1431000	**112.0**	30 - 125	
74	Ge	1	3745610	0.45	3609000	**103.8**	30 - 125	
103	Rh	1	5720520	1.47	5970000	**95.8**	30 - 125	
165	Ho	1	2710658	0.24	2661000	**101.9**	30 - 125	
175	Lu	1	2160889	0.76	2076000	**104.1**	30 - 125	
209	Bi	1	2766903	0.28	2823000	**98.0**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\060SMPL.D\060SMPL.D#
Date Acquired: Jul 26 2011 01:14 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-2-C DU Vial Number: 2403
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.720**	ug/l	7.20	5.9	900	6	P	
23	**Na**	1	**131.000**	ug/l	1,310.00	8.0	450000	45	P	
24	**Mg**	1	**22560.000**	ug/l	225,600.00	2.1	450000	45	A	
27	**Al**	1	**45550.000**	ug/l	455,500.00	1.3	450000	45	A	
31	**P**	1	**1639.000**	ug/l	16,390.00	2.5	450000	45	P	
39	**K**	1	**1234.000**	ug/l	12,340.00	3.5	450000	45	A	
43	**Ca**	1	**3000.000**	ug/l	30,000.00	1.3	450000	45	P	
47	**Ti**	1	**1604.000**	ug/l	16,040.00	1.7	4500	45	P	
51	**V**	1	**132.500**	ug/l	1,325.00	0.8	4500	74	A	
52	**Cr**	1	**123.000**	ug/l	1,230.00	0.6	4500	74	A	
55	**Mn**	1	**1762.000**	ug/l	17,620.00	1.1	4500	74	A	
56	**Fe**	1	**59820.000**	ug/l	598,200.00	0.4	450000	74	A	
59	**Co**	1	**33.270**	ug/l	332.70	1.2	4500	74	P	
60	**Ni**	1	**200.700**	ug/l	2,007.00	0.7	4500	74	P	
63	**Cu**	1	**106.200**	ug/l	1,062.00	2.1	4500	74	A	
66	**Zn**	1	**112.000**	ug/l	1,120.00	1.3	4500	74	P	
75	**As**	1	**17.600**	ug/l	176.00	0.6	4500	74	P	
78	**Se**	1	**1.311**	ug/l	13.11	1.7	4500	74	P	
88	**Sr**	1	**13.760**	ug/l	137.60	1.7	4500	103	P	
95	**Mo**	1	**0.926**	ug/l	9.26	2.1	4500	103	P	
109	**Ag**	1	**0.229**	ug/l	2.29	2.3	4500	103	P	
111	**Cd**	1	**0.471**	ug/l	4.71	9.8	4500	103	P	
118	**Sn**	1	**3.128**	ug/l	31.28	2.0	4500	103	P	
123	**Sb**	1	**0.462**	ug/l	4.62	5.8	4500	103	P	
135	**Ba**	1	**106.600**	ug/l	1,066.00	1.2	4500	103	P	
200	**Hg**	1	**0.231**	ug/l	2.31	3.4	45	209	P	
205	**Tl**	1	**0.279**	ug/l	2.79	7.0	4500	209	P	
208	**Pb**	1	**17.140**	ug/l	171.40	0.8	4500	209	P	
238	**U**	1	**0.515**	ug/l	5.15	4.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78679	0.46	78990	**99.6**	30	-	125	
45	Sc	1	1617563	2.14	1431000	**113.0**	30	-	125	
74	Ge	1	3774261	0.84	3609000	**104.6**	30	-	125	
103	Rh	1	5681906	1.04	5970000	**95.2**	30	-	125	
165	Ho	1	2701909	1.25	2661000	**101.5**	30	-	125	
175	Lu	1	2170196	1.43	2076000	**104.5**	30	-	125	
209	Bi	1	2746571	0.25	2823000	**97.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\061SMPL.D\061SMPL.D#
Date Acquired: Jul 26 2011 01:18 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-2-D MS Vial Number: 2404
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.192**	ug/l	109.60	6.4	900	6	P	
23	**Na**	1	**440.300**	ug/l	22,015.00	4.1	450000	45	A	
24	**Mg**	1	**4508.000**	ug/l	225,400.00	0.3	450000	45	A	
27	**Al**	1	**9021.000**	ug/l	451,050.00	1.8	450000	45	A	
31	**P**	1	**695.800**	ug/l	34,790.00	3.3	450000	45	P	
39	**K**	1	**664.300**	ug/l	33,215.00	2.1	450000	45	A	
43	**Ca**	1	**996.500**	ug/l	49,825.00	1.5	450000	45	P	
47	**Ti**	1	**445.900**	ug/l	22,295.00	1.2	4500	45	P	
51	**V**	1	**47.170**	ug/l	2,358.50	1.8	4500	74	P	
52	**Cr**	1	**32.230**	ug/l	1,611.50	0.9	4500	74	P	
55	**Mn**	1	**355.400**	ug/l	17,770.00	0.2	4500	74	A	
56	**Fe**	1	**11820.000**	ug/l	591,000.00	0.3	450000	74	A	
59	**Co**	1	**26.970**	ug/l	1,348.50	1.1	4500	74	P	
60	**Ni**	1	**57.670**	ug/l	2,883.50	1.4	4500	74	P	
63	**Cu**	1	**31.350**	ug/l	1,567.50	1.3	4500	74	P	
66	**Zn**	1	**42.450**	ug/l	2,122.50	1.6	4500	74	P	
75	**As**	1	**88.200**	ug/l	4,410.00	1.6	4500	74	P	
78	**Se**	1	**87.840**	ug/l	4,392.00	0.4	4500	74	P	
88	**Sr**	1	**3.127**	ug/l	156.35	1.3	4500	103	P	
95	**Mo**	1	**103.300**	ug/l	5,165.00	0.7	4500	103	P	
109	**Ag**	1	**12.610**	ug/l	630.50	0.6	4500	103	P	
111	**Cd**	1	**2.270**	ug/l	113.50	3.5	4500	103	P	
118	**Sn**	1	**101.500**	ug/l	5,075.00	1.6	4500	103	P	
123	**Sb**	1	**30.860**	ug/l	1,543.00	0.9	4500	103	P	
135	**Ba**	1	**108.300**	ug/l	5,415.00	0.3	4500	103	P	
200	**Hg**	1	**1.073**	ug/l	53.65	1.8	45	209	P	
205	**Tl**	1	**87.930**	ug/l	4,396.50	2.3	4500	209	A	
208	**Pb**	1	**24.670**	ug/l	1,233.50	2.0	4500	209	P	
238	**U**	1	**0.093**	ug/l	4.63	4.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	82036	1.39	78990	**103.9**	30	-	125	
45	Sc	1	1655431	0.70	1431000	**115.7**	30	-	125	
74	Ge	1	3915021	0.93	3609000	**108.5**	30	-	125	
103	Rh	1	6026250	0.68	5970000	**100.9**	30	-	125	
165	Ho	1	2781604	0.93	2661000	**104.5**	30	-	125	
175	Lu	1	2256549	1.18	2076000	**108.7**	30	-	125	
209	Bi	1	2872616	1.85	2823000	**101.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\062SMPL.D\062SMPL.D#
Date Acquired: Jul 26 2011 01:22 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-2-E MSD Vial Number: 2405
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.163**	ug/l	108.15	0.7	900	6	P	
23	Na	1	**467.400**	ug/l	23,370.00	3.2	450000	45	A	
24	Mg	1	**5071.000**	ug/l	253,550.00	1.1	450000	45	A	
27	Al	1	**9678.000**	ug/l	483,900.00	2.0	450000	45	A	
31	P	1	**733.500**	ug/l	36,675.00	3.0	450000	45	P	
39	K	1	**670.100**	ug/l	33,505.00	1.8	450000	45	A	
43	Ca	1	**1024.000**	ug/l	51,200.00	1.2	450000	45	P	
47	Ti	1	**447.100**	ug/l	22,355.00	1.8	4500	45	P	
51	V	1	**49.460**	ug/l	2,473.00	0.5	4500	74	P	
52	Cr	1	**33.950**	ug/l	1,697.50	0.6	4500	74	P	
55	Mn	1	**380.500**	ug/l	19,025.00	1.3	4500	74	A	
56	Fe	1	**12630.000**	ug/l	631,500.00	0.9	450000	74	A	
59	Co	1	**28.060**	ug/l	1,403.00	0.2	4500	74	P	
60	Ni	1	**62.070**	ug/l	3,103.50	0.0	4500	74	P	
63	Cu	1	**32.960**	ug/l	1,648.00	1.0	4500	74	P	
66	Zn	1	**45.090**	ug/l	2,254.50	1.5	4500	74	P	
75	As	1	**89.540**	ug/l	4,477.00	0.5	4500	74	P	
78	Se	1	**90.170**	ug/l	4,508.50	1.1	4500	74	P	
88	Sr	1	**3.274**	ug/l	163.70	1.2	4500	103	P	
95	Mo	1	**106.300**	ug/l	5,315.00	0.9	4500	103	P	
109	Ag	1	**12.940**	ug/l	647.00	1.3	4500	103	P	
111	Cd	1	**2.347**	ug/l	117.35	6.6	4500	103	P	
118	Sn	1	**104.600**	ug/l	5,230.00	2.1	4500	103	P	
123	Sb	1	**30.930**	ug/l	1,546.50	1.4	4500	103	P	
135	Ba	1	**111.200**	ug/l	5,560.00	1.4	4500	103	P	
200	Hg	1	**1.111**	ug/l	55.55	2.1	45	209	P	
205	Tl	1	**90.720**	ug/l	4,536.00	1.5	4500	209	A	
208	Pb	1	**25.380**	ug/l	1,269.00	1.6	4500	209	P	
238	U	1	**0.100**	ug/l	5.02	4.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	81440	1.43	78990	**103.1**	30	-	125	
45	Sc	1	1637423	2.33	1431000	**114.4**	30	-	125	
74	Ge	1	3912003	0.42	3609000	**108.4**	30	-	125	
103	Rh	1	5997816	0.63	5970000	**100.5**	30	-	125	
165	Ho	1	2766959	1.42	2661000	**104.0**	30	-	125	
175	Lu	1	2219182	2.02	2076000	**106.9**	30	-	125	
209	Bi	1	2859660	1.25	2823000	**101.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\063SMPL.D\063SMPL.D#
Date Acquired: Jul 26 2011 01:26 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-2-B PDS Vial Number: 2406
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.039**	ug/l	101.95	3.6	900	6	P	
23	Na	1	**405.600**	ug/l	20,280.00	2.2	450000	45	A	
24	Mg	1	**3750.000**	ug/l	187,500.00	1.4	450000	45	A	
27	Al	1	**7273.000**	ug/l	363,650.00	0.5	450000	45	A	
31	P	1	**642.200**	ug/l	32,110.00	2.8	450000	45	P	
39	K	1	**585.200**	ug/l	29,260.00	0.6	450000	45	M	
43	Ca	1	**878.300**	ug/l	43,915.00	2.0	450000	45	P	
47	Ti	1	**357.700**	ug/l	17,885.00	1.6	4500	45	P	
51	V	1	**39.500**	ug/l	1,975.00	1.3	4500	74	P	
52	Cr	1	**26.380**	ug/l	1,319.00	1.2	4500	74	P	
55	Mn	1	**299.700**	ug/l	14,985.00	1.3	4500	74	A	
56	Fe	1	**9776.000**	ug/l	488,800.00	0.5	450000	74	A	
59	Co	1	**24.490**	ug/l	1,224.50	0.7	4500	74	P	
60	Ni	1	**48.100**	ug/l	2,405.00	1.3	4500	74	P	
63	Cu	1	**27.260**	ug/l	1,363.00	0.8	4500	74	P	
66	Zn	1	**37.280**	ug/l	1,864.00	2.2	4500	74	P	
75	As	1	**82.490**	ug/l	4,124.50	0.9	4500	74	P	
78	Se	1	**82.000**	ug/l	4,100.00	1.0	4500	74	P	
88	Sr	1	**2.128**	ug/l	106.40	0.3	4500	103	P	
95	Mo	1	**98.430**	ug/l	4,921.50	0.2	4500	103	P	
109	Ag	1	**11.900**	ug/l	595.00	0.9	4500	103	P	
111	Cd	1	**1.940**	ug/l	97.00	4.5	4500	103	P	
118	Sn	1	**99.790**	ug/l	4,989.50	0.5	4500	103	P	
123	Sb	1	**58.910**	ug/l	2,945.50	0.8	4500	103	P	
135	Ba	1	**96.390**	ug/l	4,819.50	0.8	4500	103	P	
200	Hg	1	**1.035**	ug/l	51.75	2.3	45	209	P	
205	Tl	1	**84.270**	ug/l	4,213.50	2.6	4500	209	A	
208	Pb	1	**23.030**	ug/l	1,151.50	3.1	4500	209	P	
238	U	1	**0.078**	ug/l	3.91	8.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	82588	1.22	78990	**104.6**	30	-	125	
45	Sc	1	1658678	1.16	1431000	**115.9**	30	-	125	
74	Ge	1	3964436	0.23	3609000	**109.8**	30	-	125	
103	Rh	1	6080855	0.84	5970000	**101.9**	30	-	125	
165	Ho	1	2772449	0.51	2661000	**104.2**	30	-	125	
175	Lu	1	2243604	2.31	2076000	**108.1**	30	-	125	
209	Bi	1	2858119	1.95	2823000	**101.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\064SMPL.D\064SMPL.D#
Date Acquired: Jul 26 2011 01:29 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.400**	ug/l	48.40	0.6	900	6	P	
23	**Na**	1	**4888.000**	ug/l	4,888.00	3.2	450000	45	A	
24	**Mg**	1	**4848.000**	ug/l	4,848.00	2.2	450000	45	A	
27	**Al**	1	**504.500**	ug/l	504.50	2.3	450000	45	P	
31	**P**	1	**5005.000**	ug/l	5,005.00	2.9	450000	45	P	
39	**K**	1	**5046.000**	ug/l	5,046.00	2.0	450000	45	A	
43	**Ca**	1	**5033.000**	ug/l	5,033.00	2.2	450000	45	P	
47	**Ti**	1	**49.590**	ug/l	49.59	2.7	4500	45	P	
51	**V**	1	**49.040**	ug/l	49.04	0.9	4500	74	P	
52	**Cr**	1	**48.010**	ug/l	48.01	1.1	4500	74	P	
55	**Mn**	1	**50.560**	ug/l	50.56	1.2	4500	74	P	
56	**Fe**	1	**4912.000**	ug/l	4,912.00	0.7	450000	74	A	
59	**Co**	1	**48.020**	ug/l	48.02	1.1	4500	74	P	
60	**Ni**	1	**48.600**	ug/l	48.60	1.3	4500	74	P	
63	**Cu**	1	**48.200**	ug/l	48.20	1.7	4500	74	P	
66	**Zn**	1	**48.570**	ug/l	48.57	1.7	4500	74	P	
75	**As**	1	**49.190**	ug/l	49.19	1.6	4500	74	P	
78	**Se**	1	**50.950**	ug/l	50.95	1.4	4500	74	P	
88	**Sr**	1	**52.400**	ug/l	52.40	0.3	4500	103	P	
95	**Mo**	1	**49.250**	ug/l	49.25	0.4	4500	103	P	
109	**Ag**	1	**49.530**	ug/l	49.53	0.8	4500	103	P	
111	**Cd**	1	**49.500**	ug/l	49.50	0.8	4500	103	P	
118	**Sn**	1	**51.120**	ug/l	51.12	1.4	4500	103	P	
123	**Sb**	1	**50.330**	ug/l	50.33	1.2	4500	103	P	
135	**Ba**	1	**51.300**	ug/l	51.30	0.8	4500	103	P	
200	**Hg**	1	**2.381**	ug/l	2.38	0.9	45	209	P	
205	**Tl**	1	**47.180**	ug/l	47.18	3.4	4500	209	A	
208	**Pb**	1	**49.080**	ug/l	49.08	1.8	4500	209	P	
238	**U**	1	**48.830**	ug/l	48.83	1.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78147	0.34	78990	**98.9**	30	-	125	
45	Sc	1	1613192	3.34	1431000	**112.7**	30	-	125	
74	Ge	1	3930461	1.60	3609000	**108.9**	30	-	125	
103	Rh	1	5952747	0.50	5970000	**99.7**	30	-	125	
165	Ho	1	2791040	2.01	2661000	**104.9**	30	-	125	
175	Lu	1	2239806	1.30	2076000	**107.9**	30	-	125	
209	Bi	1	2883213	1.29	2823000	**102.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\065SMPL.D\065SMPL.D#
Date Acquired: Jul 26 2011 01:33 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.000**	ug/l	0.00	1974.2	900	6	P	
23	**Na**	1	**-21.710**	ug/l	-21.71	2.4	450000	45	P	
24	**Mg**	1	**0.026**	ug/l	0.03	171.3	450000	45	P	
27	**Al**	1	**0.058**	ug/l	0.06	220.7	450000	45	P	
31	**P**	1	**0.906**	ug/l	0.91	335.5	450000	45	P	
39	**K**	1	**-29.710**	ug/l	-29.71	5.9	450000	45	P	
43	**Ca**	1	**-0.488**	ug/l	-0.49	152.2	450000	45	P	
47	**Ti**	1	**0.152**	ug/l	0.15	12.2	4500	45	P	
51	**V**	1	**0.061**	ug/l	0.06	16.3	4500	74	P	
52	**Cr**	1	**-0.016**	ug/l	-0.02	29.4	4500	74	P	
55	**Mn**	1	**-0.023**	ug/l	-0.02	27.2	4500	74	P	
56	**Fe**	1	**3.589**	ug/l	3.59	5.9	450000	74	P	
59	**Co**	1	**-0.003**	ug/l	0.00	26.7	4500	74	P	
60	**Ni**	1	**-0.024**	ug/l	-0.02	30.1	4500	74	P	
63	**Cu**	1	**-0.032**	ug/l	-0.03	5.1	4500	74	P	
66	**Zn**	1	**-0.025**	ug/l	-0.02	137.7	4500	74	P	
75	**As**	1	**0.012**	ug/l	0.01	128.7	4500	74	P	
78	**Se**	1	**0.122**	ug/l	0.12	48.9	4500	74	P	
88	**Sr**	1	**-0.008**	ug/l	-0.01	80.9	4500	103	P	
95	**Mo**	1	**0.080**	ug/l	0.08	21.9	4500	103	P	
109	**Ag**	1	**-0.002**	ug/l	0.00	95.5	4500	103	P	
111	**Cd**	1	**0.009**	ug/l	0.01	94.5	4500	103	P	
118	**Sn**	1	**0.590**	ug/l	0.59	13.0	4500	103	P	
123	**Sb**	1	**0.077**	ug/l	0.08	38.3	4500	103	P	
135	**Ba**	1	**-0.017**	ug/l	-0.02	36.8	4500	103	P	
200	**Hg**	1	**0.023**	ug/l	0.02	24.0	45	209	P	
205	**Tl**	1	**0.406**	ug/l	0.41	2.6	4500	209	P	
208	**Pb**	1	**0.000**	ug/l	0.00	29418.0	4500	209	P	
238	**U**	1	**0.009**	ug/l	0.01	4.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	81090	0.84	78990	**102.7**	30	-	125	
45	Sc	1	1629130	1.08	1431000	**113.8**	30	-	125	
74	Ge	1	3986790	0.46	3609000	**110.5**	30	-	125	
103	Rh	1	6266076	1.20	5970000	**105.0**	30	-	125	
165	Ho	1	2825254	0.23	2661000	**106.2**	30	-	125	
175	Lu	1	2281536	1.99	2076000	**109.9**	30	-	125	
209	Bi	1	2980992	1.43	2823000	**105.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\073SMPL.D\073SMPL.D#
Date Acquired: Jul 26 2011 02:03 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27550-A-1-A Vial Number: 2508
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.497**	ug/l	4.97	4.3	900	6	P	
23	**Na**	1	**703.300**	ug/l	7,033.00	0.9	450000	45	A	
24	**Mg**	1	**12260.000**	ug/l	122,600.00	1.0	450000	45	A	
27	**Al**	1	**14910.000**	ug/l	149,100.00	0.3	450000	45	A	
31	**P**	1	**1040.000**	ug/l	10,400.00	0.6	450000	45	P	
39	**K**	1	**1862.000**	ug/l	18,620.00	2.1	450000	45	A	
43	**Ca**	1	**13790.000**	ug/l	137,900.00	0.8	450000	45	P	
47	**Ti**	1	**884.000**	ug/l	8,840.00	0.6	4500	45	P	
51	**V**	1	**88.060**	ug/l	880.60	1.8	4500	74	P	
52	**Cr**	1	**238.600**	ug/l	2,386.00	2.2	4500	74	A	
55	**Mn**	1	**3233.000**	ug/l	32,330.00	1.0	4500	74	A	
56	**Fe**	1	**93770.000**	ug/l	937,700.00	1.1	450000	74	A	
59	**Co**	1	**25.540**	ug/l	255.40	1.6	4500	74	P	
60	**Ni**	1	**137.000**	ug/l	1,370.00	1.9	4500	74	P	
63	**Cu**	1	**3069.000**	ug/l	30,690.00	1.8	4500	74	A	
66	**Zn**	1	**3617.000**	ug/l	36,170.00	1.8	4500	74	A	
75	**As**	1	**90.460**	ug/l	904.60	1.7	4500	74	P	
78	**Se**	1	**1.166**	ug/l	11.66	9.6	4500	74	P	
88	**Sr**	1	**119.400**	ug/l	1,194.00	0.6	4500	103	P	
95	**Mo**	1	**3.245**	ug/l	32.45	2.7	4500	103	P	
109	**Ag**	1	**6.539**	ug/l	65.39	0.9	4500	103	P	
111	**Cd**	1	**8.970**	ug/l	89.70	0.7	4500	103	P	
118	**Sn**	1	**1021.000**	ug/l	10,210.00	1.1	4500	103	A	
123	**Sb**	1	**1044.000**	ug/l	10,440.00	1.2	4500	103	A	
135	**Ba**	1	**1346.000**	ug/l	13,460.00	0.9	4500	103	A	
200	**Hg**	1	**1.878**	ug/l	18.78	0.7	45	209	P	
205	**Tl**	1	**0.566**	ug/l	5.66	0.5	4500	209	P	
208	**Pb**	1	**25390.000**	ug/l	253,900.00	0.4	4500	209	A	Fail
238	**U**	1	**0.834**	ug/l	8.34	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	81331	1.38	78990	**103.0**	30	-	125	
45	Sc	1	1502284	0.83	1431000	**105.0**	30	-	125	
74	Ge	1	3509975	0.39	3609000	**97.3**	30	-	125	
103	Rh	1	5361543	1.04	5970000	**89.8**	30	-	125	
165	Ho	1	2528726	0.76	2661000	**95.0**	30	-	125	
175	Lu	1	2021917	0.72	2076000	**97.4**	30	-	125	
209	Bi	1	2875061	0.97	2823000	**101.8**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\074SMPL.D\074SMPL.D#
Date Acquired: Jul 26 2011 02:07 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.820**	ug/l	46.82	1.4	900	6	P	
23	**Na**	1	**4807.000**	ug/l	4,807.00	0.5	450000	45	A	
24	**Mg**	1	**4947.000**	ug/l	4,947.00	2.1	450000	45	A	
27	**Al**	1	**511.900**	ug/l	511.90	1.6	450000	45	P	
31	**P**	1	**5087.000**	ug/l	5,087.00	2.0	450000	45	P	
39	**K**	1	**5048.000**	ug/l	5,048.00	1.9	450000	45	A	
43	**Ca**	1	**5021.000**	ug/l	5,021.00	1.2	450000	45	P	
47	**Ti**	1	**49.810**	ug/l	49.81	0.7	4500	45	P	
51	**V**	1	**49.540**	ug/l	49.54	1.1	4500	74	P	
52	**Cr**	1	**48.270**	ug/l	48.27	1.0	4500	74	P	
55	**Mn**	1	**50.560**	ug/l	50.56	1.0	4500	74	P	
56	**Fe**	1	**4875.000**	ug/l	4,875.00	1.6	450000	74	A	
59	**Co**	1	**47.840**	ug/l	47.84	0.6	4500	74	P	
60	**Ni**	1	**48.340**	ug/l	48.34	0.6	4500	74	P	
63	**Cu**	1	**48.210**	ug/l	48.21	1.3	4500	74	P	
66	**Zn**	1	**48.430**	ug/l	48.43	1.1	4500	74	P	
75	**As**	1	**48.900**	ug/l	48.90	1.0	4500	74	P	
78	**Se**	1	**51.070**	ug/l	51.07	0.5	4500	74	P	
88	**Sr**	1	**51.940**	ug/l	51.94	2.1	4500	103	P	
95	**Mo**	1	**48.320**	ug/l	48.32	1.6	4500	103	P	
109	**Ag**	1	**48.780**	ug/l	48.78	2.1	4500	103	P	
111	**Cd**	1	**49.410**	ug/l	49.41	2.6	4500	103	P	
118	**Sn**	1	**51.410**	ug/l	51.41	2.1	4500	103	P	
123	**Sb**	1	**50.970**	ug/l	50.97	1.6	4500	103	P	
135	**Ba**	1	**50.570**	ug/l	50.57	3.0	4500	103	P	
200	**Hg**	1	**2.399**	ug/l	2.40	2.4	45	209	P	
205	**Tl**	1	**47.330**	ug/l	47.33	2.9	4500	209	A	
208	**Pb**	1	**49.530**	ug/l	49.53	1.9	4500	209	P	
238	**U**	1	**48.670**	ug/l	48.67	0.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80616	1.15	78990	**102.1**	30	-	125	
45	Sc	1	1566168	1.70	1431000	**109.4**	30	-	125	
74	Ge	1	3811205	0.52	3609000	**105.6**	30	-	125	
103	Rh	1	5850841	2.02	5970000	**98.0**	30	-	125	
165	Ho	1	2711340	1.62	2661000	**101.9**	30	-	125	
175	Lu	1	2199317	2.52	2076000	**105.9**	30	-	125	
209	Bi	1	2827019	1.74	2823000	**100.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\075SMPL.D\075SMPL.D#
Date Acquired: Jul 26 2011 02:11 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.001**	ug/l	0.00	494.7	900	6	P	
23	Na	1	**-25.410**	ug/l	-25.41	1.5	450000	45	P	
24	Mg	1	**0.097**	ug/l	0.10	72.9	450000	45	P	
27	Al	1	**0.110**	ug/l	0.11	165.8	450000	45	P	
31	P	1	**1.077**	ug/l	1.08	259.3	450000	45	P	
39	K	1	**-30.090**	ug/l	-30.09	2.9	450000	45	P	
43	Ca	1	**1.128**	ug/l	1.13	135.9	450000	45	P	
47	Ti	1	**0.241**	ug/l	0.24	6.9	4500	45	P	
51	V	1	**0.060**	ug/l	0.06	19.3	4500	74	P	
52	Cr	1	**-0.004**	ug/l	0.00	248.0	4500	74	P	
55	Mn	1	**0.074**	ug/l	0.07	11.9	4500	74	P	
56	Fe	1	**5.630**	ug/l	5.63	0.4	450000	74	P	
59	Co	1	**-0.003**	ug/l	0.00	25.9	4500	74	P	
60	Ni	1	**-0.022**	ug/l	-0.02	59.6	4500	74	P	
63	Cu	1	**-0.007**	ug/l	-0.01	36.5	4500	74	P	
66	Zn	1	**0.000**	ug/l	0.00	5784.0	4500	74	P	
75	As	1	**0.008**	ug/l	0.01	216.6	4500	74	P	
78	Se	1	**0.169**	ug/l	0.17	48.5	4500	74	P	
88	Sr	1	**-0.001**	ug/l	0.00	93.4	4500	103	P	
95	Mo	1	**0.057**	ug/l	0.06	15.5	4500	103	P	
109	Ag	1	**-0.002**	ug/l	0.00	10.5	4500	103	P	
111	Cd	1	**0.016**	ug/l	0.02	13.7	4500	103	P	
118	Sn	1	**0.863**	ug/l	0.86	10.1	4500	103	P	
123	Sb	1	**0.629**	ug/l	0.63	20.5	4500	103	P	
135	Ba	1	**0.006**	ug/l	0.01	340.7	4500	103	P	
200	Hg	1	**0.017**	ug/l	0.02	27.6	45	209	P	
205	Tl	1	**0.263**	ug/l	0.26	4.9	4500	209	P	
208	Pb	1	**0.144**	ug/l	0.14	4.2	4500	209	P	
238	U	1	**0.010**	ug/l	0.01	16.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	82292	1.33	78990	**104.2**	30	-	125	
45	Sc	1	1614136	1.62	1431000	**112.8**	30	-	125	
74	Ge	1	3917476	1.32	3609000	**108.5**	30	-	125	
103	Rh	1	6120016	0.63	5970000	**102.5**	30	-	125	
165	Ho	1	2741248	0.51	2661000	**103.0**	30	-	125	
175	Lu	1	2223091	1.30	2076000	**107.1**	30	-	125	
209	Bi	1	2955891	0.88	2823000	**104.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\078SMPL.D\078SMPL.D#
Date Acquired: Jul 26 2011 02:23 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27550-A-1-A Vial Number: 2509
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.80	207.7	900	6	P	
23	**Na**	1	**-15.420**	ug/l	-15,420.00	2.4	450000	45	P	
24	**Mg**	1	**129.200**	ug/l	129,200.00	2.0	450000	45	P	
27	**Al**	1	**157.800**	ug/l	157,800.00	0.9	450000	45	P	
31	**P**	1	**13.520**	ug/l	13,520.00	19.9	450000	45	P	
39	**K**	1	**-10.020**	ug/l	-10,020.00	6.5	450000	45	P	
43	**Ca**	1	**147.400**	ug/l	147,400.00	7.0	450000	45	P	
47	**Ti**	1	**9.127**	ug/l	9,127.00	0.6	4500	45	P	
51	**V**	1	**0.852**	ug/l	852.40	6.8	4500	74	P	
52	**Cr**	1	**2.292**	ug/l	2,292.00	4.4	4500	74	P	
55	**Mn**	1	**33.670**	ug/l	33,670.00	0.9	4500	74	P	
56	**Fe**	1	**925.200**	ug/l	925,200.00	0.7	450000	74	A	
59	**Co**	1	**0.249**	ug/l	248.60	3.8	4500	74	P	
60	**Ni**	1	**1.402**	ug/l	1,402.00	2.4	4500	74	P	
63	**Cu**	1	**33.120**	ug/l	33,120.00	0.8	4500	74	P	
66	**Zn**	1	**37.380**	ug/l	37,380.00	0.9	4500	74	P	
75	**As**	1	**0.906**	ug/l	905.90	1.6	4500	74	P	
78	**Se**	1	**0.132**	ug/l	132.30	23.0	4500	74	P	
88	**Sr**	1	**1.168**	ug/l	1,168.00	5.7	4500	103	P	
95	**Mo**	1	**0.044**	ug/l	43.98	21.4	4500	103	P	
109	**Ag**	1	**0.066**	ug/l	65.94	2.9	4500	103	P	
111	**Cd**	1	**0.094**	ug/l	94.45	42.0	4500	103	P	
118	**Sn**	1	**10.200**	ug/l	10,200.00	1.8	4500	103	P	
123	**Sb**	1	**10.580**	ug/l	10,580.00	0.8	4500	103	P	
135	**Ba**	1	**13.090**	ug/l	13,090.00	3.2	4500	103	P	
200	**Hg**	1	**0.028**	ug/l	28.19	19.2	45	209	P	
205	**Tl**	1	**0.051**	ug/l	50.96	11.7	4500	209	P	
208	**Pb**	1	**280.800**	ug/l	280,800.00	0.7	4500	209	A	
238	**U**	1	**0.006**	ug/l	6.25	8.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80908	1.00	78990	**102.4**	30	-	125	
45	Sc	1	1596015	0.67	1431000	**111.5**	30	-	125	
74	Ge	1	3879362	0.68	3609000	**107.5**	30	-	125	
103	Rh	1	6107671	0.97	5970000	**102.3**	30	-	125	
165	Ho	1	2752832	0.71	2661000	**103.5**	30	-	125	
175	Lu	1	2216789	0.70	2076000	**106.8**	30	-	125	
209	Bi	1	2907197	0.28	2823000	**103.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\079SMPL.D\079SMPL.D#
Date Acquired: Jul 26 2011 02:26 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**46.870**	ug/l	46.87	1.8	900	6	P	
23	Na	1	**4696.000**	ug/l	4,696.00	1.1	450000	45	A	
24	Mg	1	**4789.000**	ug/l	4,789.00	2.8	450000	45	A	
27	Al	1	**504.100**	ug/l	504.10	3.2	450000	45	P	
31	P	1	**4990.000**	ug/l	4,990.00	2.7	450000	45	P	
39	K	1	**5021.000**	ug/l	5,021.00	2.9	450000	45	A	
43	Ca	1	**4992.000**	ug/l	4,992.00	3.0	450000	45	P	
47	Ti	1	**49.100**	ug/l	49.10	3.9	4500	45	P	
51	V	1	**48.730**	ug/l	48.73	1.0	4500	74	P	
52	Cr	1	**47.770**	ug/l	47.77	1.0	4500	74	P	
55	Mn	1	**50.110**	ug/l	50.11	1.4	4500	74	P	
56	Fe	1	**4847.000**	ug/l	4,847.00	1.3	450000	74	A	
59	Co	1	**47.500**	ug/l	47.50	0.8	4500	74	P	
60	Ni	1	**47.780**	ug/l	47.78	1.8	4500	74	P	
63	Cu	1	**47.240**	ug/l	47.24	1.2	4500	74	P	
66	Zn	1	**47.370**	ug/l	47.37	0.3	4500	74	P	
75	As	1	**48.720**	ug/l	48.72	1.4	4500	74	P	
78	Se	1	**50.520**	ug/l	50.52	2.1	4500	74	P	
88	Sr	1	**52.450**	ug/l	52.45	0.2	4500	103	P	
95	Mo	1	**49.050**	ug/l	49.05	0.9	4500	103	P	
109	Ag	1	**48.730**	ug/l	48.73	0.6	4500	103	P	
111	Cd	1	**49.640**	ug/l	49.64	0.7	4500	103	P	
118	Sn	1	**49.860**	ug/l	49.86	0.4	4500	103	P	
123	Sb	1	**50.540**	ug/l	50.54	0.2	4500	103	P	
135	Ba	1	**50.790**	ug/l	50.79	0.9	4500	103	P	
200	Hg	1	**2.370**	ug/l	2.37	2.0	45	209	P	
205	Tl	1	**46.810**	ug/l	46.81	5.3	4500	209	A	
208	Pb	1	**49.140**	ug/l	49.14	0.4	4500	209	P	
238	U	1	**48.510**	ug/l	48.51	2.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79821	1.51	78990	**101.1**	30	-	125	
45	Sc	1	1622623	2.87	1431000	**113.4**	30	-	125	
74	Ge	1	3928264	0.76	3609000	**108.8**	30	-	125	
103	Rh	1	5952575	0.34	5970000	**99.7**	30	-	125	
165	Ho	1	2755577	0.34	2661000	**103.6**	30	-	125	
175	Lu	1	2259447	1.57	2076000	**108.8**	30	-	125	
209	Bi	1	2863438	0.14	2823000	**101.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\080SMPL.D\080SMPL.D#
Date Acquired: Jul 26 2011 02:30 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	243.6	900	6	P	
23	**Na**	1	**-23.140**	ug/l	-23.14	3.5	450000	45	P	
24	**Mg**	1	**0.070**	ug/l	0.07	47.6	450000	45	P	
27	**Al**	1	**0.185**	ug/l	0.19	60.8	450000	45	P	
31	**P**	1	**0.619**	ug/l	0.62	145.7	450000	45	P	
39	**K**	1	**-31.390**	ug/l	-31.39	8.5	450000	45	P	
43	**Ca**	1	**3.305**	ug/l	3.31	57.9	450000	45	P	
47	**Ti**	1	**0.076**	ug/l	0.08	52.5	4500	45	P	
51	**V**	1	**0.060**	ug/l	0.06	13.2	4500	74	P	
52	**Cr**	1	**-0.018**	ug/l	-0.02	53.4	4500	74	P	
55	**Mn**	1	**0.031**	ug/l	0.03	67.7	4500	74	P	
56	**Fe**	1	**2.625**	ug/l	2.63	3.4	450000	74	P	
59	**Co**	1	**-0.002**	ug/l	0.00	10.3	4500	74	P	
60	**Ni**	1	**-0.019**	ug/l	-0.02	22.0	4500	74	P	
63	**Cu**	1	**-0.007**	ug/l	-0.01	69.0	4500	74	P	
66	**Zn**	1	**0.054**	ug/l	0.05	65.6	4500	74	P	
75	**As**	1	**0.007**	ug/l	0.01	98.9	4500	74	P	
78	**Se**	1	**0.186**	ug/l	0.19	28.7	4500	74	P	
88	**Sr**	1	**0.000**	ug/l	0.00	2867.1	4500	103	P	
95	**Mo**	1	**0.045**	ug/l	0.04	11.3	4500	103	P	
109	**Ag**	1	**-0.002**	ug/l	0.00	156.0	4500	103	P	
111	**Cd**	1	**0.003**	ug/l	0.00	260.3	4500	103	P	
118	**Sn**	1	**0.341**	ug/l	0.34	15.3	4500	103	P	
123	**Sb**	1	**0.285**	ug/l	0.28	29.1	4500	103	P	
135	**Ba**	1	**-0.007**	ug/l	-0.01	311.5	4500	103	P	
200	**Hg**	1	**0.011**	ug/l	0.01	28.5	45	209	P	
205	**Tl**	1	**0.275**	ug/l	0.27	4.7	4500	209	P	
208	**Pb**	1	**0.038**	ug/l	0.04	27.7	4500	209	P	
238	**U**	1	**0.012**	ug/l	0.01	5.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	81922	1.24	78990	**103.7**	30	-	125	
45	Sc	1	1618210	2.95	1431000	**113.1**	30	-	125	
74	Ge	1	3942582	1.50	3609000	**109.2**	30	-	125	
103	Rh	1	6152481	0.91	5970000	**103.1**	30	-	125	
165	Ho	1	2782252	0.41	2661000	**104.6**	30	-	125	
175	Lu	1	2252843	0.44	2076000	**108.5**	30	-	125	
209	Bi	1	2949623	0.42	2823000	**104.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\081SMPL.D\081SMPL.D#
Date Acquired: Jul 26 2011 02:34 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-1-E Vial Number: 2501
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.734**	ug/l	7.34	6.7	900	6	P	
23	**Na**	1	**172.000**	ug/l	1,720.00	6.9	450000	45	P	
24	**Mg**	1	**31530.000**	ug/l	315,300.00	1.3	450000	45	A	
27	**Al**	1	**43360.000**	ug/l	433,600.00	2.1	450000	45	A	
31	**P**	1	**1908.000**	ug/l	19,080.00	0.7	450000	45	P	
39	**K**	1	**1522.000**	ug/l	15,220.00	2.8	450000	45	A	
43	**Ca**	1	**4822.000**	ug/l	48,220.00	1.8	450000	45	P	
47	**Ti**	1	**1639.000**	ug/l	16,390.00	1.8	4500	45	P	
51	**V**	1	**133.800**	ug/l	1,338.00	1.9	4500	74	A	
52	**Cr**	1	**156.000**	ug/l	1,560.00	0.6	4500	74	A	
55	**Mn**	1	**2442.000**	ug/l	24,420.00	0.7	4500	74	A	
56	**Fe**	1	**69170.000**	ug/l	691,700.00	0.7	450000	74	A	
59	**Co**	1	**40.470**	ug/l	404.70	1.7	4500	74	P	
60	**Ni**	1	**246.700**	ug/l	2,467.00	1.8	4500	74	P	
63	**Cu**	1	**127.400**	ug/l	1,274.00	0.9	4500	74	A	
66	**Zn**	1	**126.600**	ug/l	1,266.00	1.7	4500	74	P	
75	**As**	1	**17.150**	ug/l	171.50	2.9	4500	74	P	
78	**Se**	1	**1.392**	ug/l	13.92	6.5	4500	74	P	
88	**Sr**	1	**14.990**	ug/l	149.90	2.2	4500	103	P	
95	**Mo**	1	**1.167**	ug/l	11.67	1.4	4500	103	P	
109	**Ag**	1	**0.170**	ug/l	1.70	4.6	4500	103	P	
111	**Cd**	1	**0.509**	ug/l	5.09	4.0	4500	103	P	
118	**Sn**	1	**2.037**	ug/l	20.37	3.0	4500	103	P	
123	**Sb**	1	**1.055**	ug/l	10.55	0.9	4500	103	P	
135	**Ba**	1	**121.300**	ug/l	1,213.00	2.4	4500	103	P	
200	**Hg**	1	**0.233**	ug/l	2.33	2.7	45	209	P	
205	**Tl**	1	**0.279**	ug/l	2.79	12.4	4500	209	P	
208	**Pb**	1	**23.510**	ug/l	235.10	1.7	4500	209	P	
238	**U**	1	**0.405**	ug/l	4.05	2.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79074	1.01	78990	**100.1**	30	-	125	
45	Sc	1	1616715	1.80	1431000	**113.0**	30	-	125	
74	Ge	1	3744244	1.06	3609000	**103.7**	30	-	125	
103	Rh	1	5568614	1.07	5970000	**93.3**	30	-	125	
165	Ho	1	2634786	1.96	2661000	**99.0**	30	-	125	
175	Lu	1	2149422	1.36	2076000	**103.5**	30	-	125	
209	Bi	1	2707936	1.42	2823000	**95.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\082SMPL.D\082SMPL.D#
Date Acquired: Jul 26 2011 02:38 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-3-A Vial Number: 2502
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.169**	ug/l	11.69	2.7	900	6	P	
23	**Na**	1	**197.300**	ug/l	1,973.00	2.0	450000	45	P	
24	**Mg**	1	**56690.000**	ug/l	566,900.00	2.1	450000	45	A	
27	**Al**	1	**70400.000**	ug/l	704,000.00	2.5	450000	45	A	
31	**P**	1	**1892.000**	ug/l	18,920.00	1.6	450000	45	P	
39	**K**	1	**1792.000**	ug/l	17,920.00	2.3	450000	45	A	
43	**Ca**	1	**5770.000**	ug/l	57,700.00	0.8	450000	45	P	
47	**Ti**	1	**2403.000**	ug/l	24,030.00	1.5	4500	45	P	
51	**V**	1	**211.600**	ug/l	2,116.00	0.5	4500	74	A	
52	**Cr**	1	**305.500**	ug/l	3,055.00	1.1	4500	74	A	
55	**Mn**	1	**2109.000**	ug/l	21,090.00	1.4	4500	74	A	
56	**Fe**	1	**110600.000**	ug/l	1,106,000.00	1.5	450000	74	A	
59	**Co**	1	**72.850**	ug/l	728.50	1.0	4500	74	A	
60	**Ni**	1	**573.200**	ug/l	5,732.00	2.6	4500	74	A	
63	**Cu**	1	**188.500**	ug/l	1,885.00	1.1	4500	74	A	
66	**Zn**	1	**182.500**	ug/l	1,825.00	0.8	4500	74	P	
75	**As**	1	**27.610**	ug/l	276.10	0.8	4500	74	P	
78	**Se**	1	**2.158**	ug/l	21.58	4.4	4500	74	P	
88	**Sr**	1	**30.830**	ug/l	308.30	1.9	4500	103	P	
95	**Mo**	1	**1.268**	ug/l	12.68	0.4	4500	103	P	
109	**Ag**	1	**0.183**	ug/l	1.83	4.9	4500	103	P	
111	**Cd**	1	**0.489**	ug/l	4.89	13.2	4500	103	P	
118	**Sn**	1	**2.205**	ug/l	22.05	0.6	4500	103	P	
123	**Sb**	1	**0.652**	ug/l	6.52	5.7	4500	103	P	
135	**Ba**	1	**177.000**	ug/l	1,770.00	1.2	4500	103	P	
200	**Hg**	1	**0.207**	ug/l	2.07	1.8	45	209	P	
205	**Tl**	1	**0.288**	ug/l	2.88	7.9	4500	209	P	
208	**Pb**	1	**21.300**	ug/l	213.00	1.2	4500	209	P	
238	**U**	1	**0.763**	ug/l	7.63	6.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77185	1.10	78990	**97.7**	30	-	125	
45	Sc	1	1584310	0.57	1431000	**110.7**	30	-	125	
74	Ge	1	3650569	0.56	3609000	**101.2**	30	-	125	
103	Rh	1	5400353	0.58	5970000	**90.5**	30	-	125	
165	Ho	1	2632744	1.12	2661000	**98.9**	30	-	125	
175	Lu	1	2075871	0.99	2076000	**100.0**	30	-	125	
209	Bi	1	2582372	0.86	2823000	**91.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\083SMPL.D\083SMPL.D#
Date Acquired: Jul 26 2011 02:42 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-4-A Vial Number: 2503
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.315**	ug/l	13.15	1.0	900	6	P	
23	Na	1	**264.000**	ug/l	2,640.00	1.9	450000	45	P	
24	Mg	1	**56620.000**	ug/l	566,200.00	1.5	450000	45	A	
27	Al	1	**72380.000**	ug/l	723,800.00	1.1	450000	45	A	
31	P	1	**1904.000**	ug/l	19,040.00	1.1	450000	45	P	
39	K	1	**2194.000**	ug/l	21,940.00	1.3	450000	45	A	
43	Ca	1	**7212.000**	ug/l	72,120.00	0.9	450000	45	P	
47	Ti	1	**2493.000**	ug/l	24,930.00	0.9	4500	45	P	
51	V	1	**218.200**	ug/l	2,182.00	2.7	4500	74	A	
52	Cr	1	**296.900**	ug/l	2,969.00	1.2	4500	74	A	
55	Mn	1	**2214.000**	ug/l	22,140.00	0.6	4500	74	A	
56	Fe	1	**108400.000**	ug/l	1,084,000.00	1.7	450000	74	A	
59	Co	1	**71.770**	ug/l	717.70	0.7	4500	74	A	
60	Ni	1	**568.400**	ug/l	5,684.00	1.4	4500	74	A	
63	Cu	1	**200.500**	ug/l	2,005.00	1.1	4500	74	A	
66	Zn	1	**185.500**	ug/l	1,855.00	2.4	4500	74	P	
75	As	1	**33.740**	ug/l	337.40	2.3	4500	74	P	
78	Se	1	**2.621**	ug/l	26.21	2.9	4500	74	P	
88	Sr	1	**39.260**	ug/l	392.60	1.5	4500	103	P	
95	Mo	1	**1.514**	ug/l	15.14	1.8	4500	103	P	
109	Ag	1	**0.229**	ug/l	2.29	2.0	4500	103	P	
111	Cd	1	**0.567**	ug/l	5.67	5.2	4500	103	P	
118	Sn	1	**4.603**	ug/l	46.03	0.7	4500	103	P	
123	Sb	1	**0.828**	ug/l	8.28	2.8	4500	103	P	
135	Ba	1	**250.400**	ug/l	2,504.00	0.8	4500	103	P	
200	Hg	1	**0.257**	ug/l	2.57	4.7	45	209	P	
205	Tl	1	**0.298**	ug/l	2.98	10.9	4500	209	P	
208	Pb	1	**25.560**	ug/l	255.60	0.8	4500	209	P	
238	U	1	**0.805**	ug/l	8.05	2.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76413	0.84	78990	**96.7**	30	-	125	
45	Sc	1	1575739	0.88	1431000	**110.1**	30	-	125	
74	Ge	1	3639801	1.34	3609000	**100.9**	30	-	125	
103	Rh	1	5475835	0.99	5970000	**91.7**	30	-	125	
165	Ho	1	2622304	0.43	2661000	**98.5**	30	-	125	
175	Lu	1	2084223	1.06	2076000	**100.4**	30	-	125	
209	Bi	1	2580123	0.71	2823000	**91.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\084SMPL.D\084SMPL.D#
Date Acquired: Jul 26 2011 02:45 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27549-A-5-A Vial Number: 2504
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.970**	ug/l	19.70	6.6	900	6	P	
23	**Na**	1	**198.500**	ug/l	1,985.00	2.0	450000	45	P	
24	**Mg**	1	**21770.000**	ug/l	217,700.00	1.9	450000	45	A	
27	**Al**	1	**27670.000**	ug/l	276,700.00	2.3	450000	45	A	
31	**P**	1	**967.100**	ug/l	9,671.00	3.2	450000	45	P	
39	**K**	1	**4909.000**	ug/l	49,090.00	0.7	450000	45	A	
43	**Ca**	1	**5331.000**	ug/l	53,310.00	1.9	450000	45	P	
47	**Ti**	1	**110.900**	ug/l	1,109.00	1.3	4500	45	P	
51	**V**	1	**29.440**	ug/l	294.40	1.3	4500	74	P	
52	**Cr**	1	**159.500**	ug/l	1,595.00	0.9	4500	74	A	
55	**Mn**	1	**502.900**	ug/l	5,029.00	1.3	4500	74	A	
56	**Fe**	1	**32070.000**	ug/l	320,700.00	1.6	450000	74	A	
59	**Co**	1	**37.790**	ug/l	377.90	1.4	4500	74	P	
60	**Ni**	1	**223.700**	ug/l	2,237.00	1.4	4500	74	P	
63	**Cu**	1	**155.800**	ug/l	1,558.00	0.5	4500	74	A	
66	**Zn**	1	**64.630**	ug/l	646.30	1.8	4500	74	P	
75	**As**	1	**68.730**	ug/l	687.30	1.3	4500	74	P	
78	**Se**	1	**1.702**	ug/l	17.02	1.6	4500	74	P	
88	**Sr**	1	**39.880**	ug/l	398.80	1.3	4500	103	P	
95	**Mo**	1	**2.621**	ug/l	26.21	0.7	4500	103	P	
109	**Ag**	1	**0.170**	ug/l	1.70	3.6	4500	103	P	
111	**Cd**	1	**0.454**	ug/l	4.54	8.3	4500	103	P	
118	**Sn**	1	**3.471**	ug/l	34.71	0.4	4500	103	P	
123	**Sb**	1	**0.749**	ug/l	7.49	6.3	4500	103	P	
135	**Ba**	1	**252.200**	ug/l	2,522.00	1.1	4500	103	P	
200	**Hg**	1	**0.148**	ug/l	1.48	2.8	45	209	P	
205	**Tl**	1	**0.490**	ug/l	4.90	7.6	4500	209	P	
208	**Pb**	1	**30.610**	ug/l	306.10	1.7	4500	209	P	
238	**U**	1	**2.123**	ug/l	21.23	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79101	2.08	78990	**100.1**	30	-	125	
45	Sc	1	1594612	2.09	1431000	**111.4**	30	-	125	
74	Ge	1	3813402	0.74	3609000	**105.7**	30	-	125	
103	Rh	1	5753646	0.74	5970000	**96.4**	30	-	125	
165	Ho	1	2715271	0.78	2661000	**102.0**	30	-	125	
175	Lu	1	2156790	0.52	2076000	**103.9**	30	-	125	
209	Bi	1	2742670	1.16	2823000	**97.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\085SMPL.D\085SMPL.D#
Date Acquired: Jul 26 2011 02:49 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27544-A-1-B Vial Number: 2505
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.592**	ug/l	5.92	6.7	900	6	P	
23	**Na**	1	**104.500**	ug/l	1,045.00	2.3	450000	45	P	
24	**Mg**	1	**515.900**	ug/l	5,159.00	1.4	450000	45	P	
27	**Al**	1	**92540.000**	ug/l	925,400.00	2.3	450000	45	A	
31	**P**	1	**188.900**	ug/l	1,889.00	1.1	450000	45	P	
39	**K**	1	**53.740**	ug/l	537.40	5.0	450000	45	P	
43	**Ca**	1	**434.600**	ug/l	4,346.00	3.8	450000	45	P	
47	**Ti**	1	**1486.000**	ug/l	14,860.00	1.6	4500	45	P	
51	**V**	1	**130.400**	ug/l	1,304.00	1.4	4500	74	A	
52	**Cr**	1	**6.693**	ug/l	66.93	0.9	4500	74	P	
55	**Mn**	1	**1671.000**	ug/l	16,710.00	1.4	4500	74	A	
56	**Fe**	1	**47440.000**	ug/l	474,400.00	1.4	450000	74	A	
59	**Co**	1	**23.340**	ug/l	233.40	0.7	4500	74	P	
60	**Ni**	1	**5.956**	ug/l	59.56	1.3	4500	74	P	
63	**Cu**	1	**42.850**	ug/l	428.50	0.7	4500	74	P	
66	**Zn**	1	**52.680**	ug/l	526.80	1.2	4500	74	P	
75	**As**	1	**1.380**	ug/l	13.80	4.6	4500	74	P	
78	**Se**	1	**1.338**	ug/l	13.38	14.3	4500	74	P	
88	**Sr**	1	**8.767**	ug/l	87.67	0.9	4500	103	P	
95	**Mo**	1	**0.683**	ug/l	6.83	2.5	4500	103	P	
109	**Ag**	1	**0.026**	ug/l	0.26	12.9	4500	103	P	
111	**Cd**	1	**0.199**	ug/l	1.99	27.0	4500	103	P	
118	**Sn**	1	**1.802**	ug/l	18.02	0.5	4500	103	P	
123	**Sb**	1	**0.204**	ug/l	2.04	8.1	4500	103	P	
135	**Ba**	1	**395.200**	ug/l	3,952.00	0.7	4500	103	P	
200	**Hg**	1	**0.014**	ug/l	0.14	14.8	45	209	P	
205	**Tl**	1	**0.369**	ug/l	3.69	6.8	4500	209	P	
208	**Pb**	1	**28.930**	ug/l	289.30	1.0	4500	209	P	
238	**U**	1	**1.020**	ug/l	10.20	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78813	0.99	78990	**99.8**	30	-	125	
45	Sc	1	1655060	1.58	1431000	**115.7**	30	-	125	
74	Ge	1	3667957	0.39	3609000	**101.6**	30	-	125	
103	Rh	1	5593120	0.43	5970000	**93.7**	30	-	125	
165	Ho	1	2665726	0.46	2661000	**100.2**	30	-	125	
175	Lu	1	2139023	1.58	2076000	**103.0**	30	-	125	
209	Bi	1	2659569	0.49	2823000	**94.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\086SMPL.D\086SMPL.D#
Date Acquired: Jul 26 2011 02:53 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27544-A-2-B Vial Number: 2506
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.283**	ug/l	12.83	1.9	900	6	P	
23	**Na**	1	**61.640**	ug/l	616.40	6.3	450000	45	P	
24	**Mg**	1	**1557.000**	ug/l	15,570.00	2.2	450000	45	A	
27	**Al**	1	**85440.000**	ug/l	854,400.00	2.5	450000	45	A	
31	**P**	1	**291.800**	ug/l	2,918.00	2.2	450000	45	P	
39	**K**	1	**98.610**	ug/l	986.10	4.6	450000	45	P	
43	**Ca**	1	**1397.000**	ug/l	13,970.00	3.4	450000	45	P	
47	**Ti**	1	**1666.000**	ug/l	16,660.00	2.2	4500	45	P	
51	**V**	1	**175.100**	ug/l	1,751.00	0.9	4500	74	A	
52	**Cr**	1	**38.610**	ug/l	386.10	1.5	4500	74	P	
55	**Mn**	1	**970.200**	ug/l	9,702.00	0.2	4500	74	A	
56	**Fe**	1	**60110.000**	ug/l	601,100.00	1.7	450000	74	A	
59	**Co**	1	**17.330**	ug/l	173.30	1.5	4500	74	P	
60	**Ni**	1	**13.820**	ug/l	138.20	1.8	4500	74	P	
63	**Cu**	1	**67.340**	ug/l	673.40	1.5	4500	74	P	
66	**Zn**	1	**83.860**	ug/l	838.60	1.3	4500	74	P	
75	**As**	1	**2.094**	ug/l	20.94	5.4	4500	74	P	
78	**Se**	1	**1.929**	ug/l	19.29	9.0	4500	74	P	
88	**Sr**	1	**66.770**	ug/l	667.70	0.6	4500	103	P	
95	**Mo**	1	**0.911**	ug/l	9.11	5.4	4500	103	P	
109	**Ag**	1	**0.027**	ug/l	0.27	18.3	4500	103	P	
111	**Cd**	1	**0.323**	ug/l	3.23	7.9	4500	103	P	
118	**Sn**	1	**2.071**	ug/l	20.71	1.9	4500	103	P	
123	**Sb**	1	**0.192**	ug/l	1.92	14.0	4500	103	P	
135	**Ba**	1	**233.200**	ug/l	2,332.00	2.0	4500	103	P	
200	**Hg**	1	**0.016**	ug/l	0.16	32.1	45	209	P	
205	**Tl**	1	**0.169**	ug/l	1.69	12.1	4500	209	P	
208	**Pb**	1	**19.490**	ug/l	194.90	1.0	4500	209	P	
238	**U**	1	**1.243**	ug/l	12.43	1.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77956	1.04	78990	**98.7**	30	-	125	
45	Sc	1	1645900	2.24	1431000	**115.0**	30	-	125	
74	Ge	1	3725740	1.34	3609000	**103.2**	30	-	125	
103	Rh	1	5557183	0.72	5970000	**93.1**	30	-	125	
165	Ho	1	2669201	0.40	2661000	**100.3**	30	-	125	
175	Lu	1	2123838	1.00	2076000	**102.3**	30	-	125	
209	Bi	1	2676328	1.18	2823000	**94.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\087SMPL.D\087SMPL.D#
Date Acquired: Jul 26 2011 02:57 pm Acq. Method: 00He_ALL.M
Sample Name: 580-27553-E-1-B Vial Number: 2507
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.672**	ug/l	6.72	1.7	900	6	P	
23	**Na**	1	**493.400**	ug/l	4,934.00	2.9	450000	45	A	
24	**Mg**	1	**9682.000**	ug/l	96,820.00	1.2	450000	45	A	
27	**Al**	1	**25690.000**	ug/l	256,900.00	1.1	450000	45	A	
31	**P**	1	**921.800**	ug/l	9,218.00	1.7	450000	45	P	
39	**K**	1	**2639.000**	ug/l	26,390.00	1.4	450000	45	A	
43	**Ca**	1	**6577.000**	ug/l	65,770.00	1.1	450000	45	P	
47	**Ti**	1	**1298.000**	ug/l	12,980.00	0.3	4500	45	P	
51	**V**	1	**113.800**	ug/l	1,138.00	1.2	4500	74	A	
52	**Cr**	1	**103.300**	ug/l	1,033.00	0.9	4500	74	A	
55	**Mn**	1	**621.000**	ug/l	6,210.00	0.6	4500	74	A	
56	**Fe**	1	**49660.000**	ug/l	496,600.00	0.5	450000	74	A	
59	**Co**	1	**24.420**	ug/l	244.20	0.8	4500	74	P	
60	**Ni**	1	**97.950**	ug/l	979.50	0.9	4500	74	P	
63	**Cu**	1	**145.300**	ug/l	1,453.00	0.9	4500	74	A	
66	**Zn**	1	**259.900**	ug/l	2,599.00	0.7	4500	74	P	
75	**As**	1	**22.810**	ug/l	228.10	0.9	4500	74	P	
78	**Se**	1	**1.474**	ug/l	14.74	6.9	4500	74	P	
88	**Sr**	1	**89.130**	ug/l	891.30	0.6	4500	103	P	
95	**Mo**	1	**13.750**	ug/l	137.50	0.5	4500	103	P	
109	**Ag**	1	**0.163**	ug/l	1.63	2.4	4500	103	P	
111	**Cd**	1	**0.693**	ug/l	6.93	4.3	4500	103	P	
118	**Sn**	1	**13.650**	ug/l	136.50	1.0	4500	103	P	
123	**Sb**	1	**2.518**	ug/l	25.18	1.8	4500	103	P	
135	**Ba**	1	**235.300**	ug/l	2,353.00	0.3	4500	103	P	
200	**Hg**	1	**0.347**	ug/l	3.47	1.5	45	209	P	
205	**Tl**	1	**0.240**	ug/l	2.40	5.0	4500	209	P	
208	**Pb**	1	**185.700**	ug/l	1,857.00	0.4	4500	209	A	
238	**U**	1	**2.114**	ug/l	21.14	1.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78839	0.63	78990	**99.8**	30	-	125	
45	Sc	1	1581692	0.83	1431000	**110.5**	30	-	125	
74	Ge	1	3711044	0.99	3609000	**102.8**	30	-	125	
103	Rh	1	5654065	0.89	5970000	**94.7**	30	-	125	
165	Ho	1	2671906	1.07	2661000	**100.4**	30	-	125	
175	Lu	1	2151069	0.44	2076000	**103.6**	30	-	125	
209	Bi	1	2718244	0.24	2823000	**96.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\088SMPL.D\088SMPL.D#
Date Acquired: Jul 26 2011 03:00 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.500**	ug/l	46.50	0.8	900	6	P	
23	**Na**	1	**4705.000**	ug/l	4,705.00	2.5	450000	45	A	
24	**Mg**	1	**4789.000**	ug/l	4,789.00	1.5	450000	45	A	
27	**Al**	1	**503.000**	ug/l	503.00	2.6	450000	45	P	
31	**P**	1	**4934.000**	ug/l	4,934.00	3.0	450000	45	P	
39	**K**	1	**5020.000**	ug/l	5,020.00	1.1	450000	45	A	
43	**Ca**	1	**4912.000**	ug/l	4,912.00	2.5	450000	45	P	
47	**Ti**	1	**48.900**	ug/l	48.90	2.6	4500	45	P	
51	**V**	1	**48.690**	ug/l	48.69	0.8	4500	74	P	
52	**Cr**	1	**47.580**	ug/l	47.58	0.9	4500	74	P	
55	**Mn**	1	**49.960**	ug/l	49.96	1.0	4500	74	P	
56	**Fe**	1	**4849.000**	ug/l	4,849.00	1.2	450000	74	A	
59	**Co**	1	**47.360**	ug/l	47.36	0.8	4500	74	P	
60	**Ni**	1	**47.680**	ug/l	47.68	1.7	4500	74	P	
63	**Cu**	1	**47.440**	ug/l	47.44	1.0	4500	74	P	
66	**Zn**	1	**47.100**	ug/l	47.10	0.7	4500	74	P	
75	**As**	1	**48.650**	ug/l	48.65	0.8	4500	74	P	
78	**Se**	1	**50.900**	ug/l	50.90	0.4	4500	74	P	
88	**Sr**	1	**51.760**	ug/l	51.76	1.1	4500	103	P	
95	**Mo**	1	**48.340**	ug/l	48.34	1.4	4500	103	P	
109	**Ag**	1	**48.410**	ug/l	48.41	1.0	4500	103	P	
111	**Cd**	1	**49.050**	ug/l	49.05	1.1	4500	103	P	
118	**Sn**	1	**49.710**	ug/l	49.71	2.0	4500	103	P	
123	**Sb**	1	**49.790**	ug/l	49.79	1.5	4500	103	P	
135	**Ba**	1	**50.380**	ug/l	50.38	1.1	4500	103	P	
200	**Hg**	1	**2.365**	ug/l	2.37	1.4	45	209	P	
205	**Tl**	1	**45.970**	ug/l	45.97	5.7	4500	209	A	
208	**Pb**	1	**48.640**	ug/l	48.64	1.5	4500	209	P	
238	**U**	1	**48.330**	ug/l	48.33	0.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78399	0.46	78990	**99.3**	30	-	125	
45	Sc	1	1578039	1.89	1431000	**110.3**	30	-	125	
74	Ge	1	3828187	0.25	3609000	**106.1**	30	-	125	
103	Rh	1	5876661	0.49	5970000	**98.4**	30	-	125	
165	Ho	1	2713120	0.78	2661000	**102.0**	30	-	125	
175	Lu	1	2198059	0.65	2076000	**105.9**	30	-	125	
209	Bi	1	2841725	0.50	2823000	**100.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\072611.B\089SMPL.D\089SMPL.D#
Date Acquired: Jul 26 2011 03:04 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00009,ICSA&ICSAB 072011

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Jul 26 2011 03:23 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\072611.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.00	165.8	900	6	P	
23	**Na**	1	**-24.710**	ug/l	-24.71	1.8	450000	45	P	
24	**Mg**	1	**0.184**	ug/l	0.18	52.8	450000	45	P	
27	**Al**	1	**0.401**	ug/l	0.40	11.6	450000	45	P	
31	**P**	1	**-0.398**	ug/l	-0.40	328.6	450000	45	P	
39	**K**	1	**-30.600**	ug/l	-30.60	6.1	450000	45	P	
43	**Ca**	1	**1.565**	ug/l	1.57	35.5	450000	45	P	
47	**Ti**	1	**0.251**	ug/l	0.25	5.9	4500	45	P	
51	**V**	1	**0.043**	ug/l	0.04	6.8	4500	74	P	
52	**Cr**	1	**-0.013**	ug/l	-0.01	24.1	4500	74	P	
55	**Mn**	1	**0.067**	ug/l	0.07	27.6	4500	74	P	
56	**Fe**	1	**5.297**	ug/l	5.30	2.0	450000	74	P	
59	**Co**	1	**-0.003**	ug/l	0.00	59.4	4500	74	P	
60	**Ni**	1	**-0.028**	ug/l	-0.03	9.4	4500	74	P	
63	**Cu**	1	**-0.028**	ug/l	-0.03	17.3	4500	74	P	
66	**Zn**	1	**0.065**	ug/l	0.06	20.6	4500	74	P	
75	**As**	1	**0.018**	ug/l	0.02	57.6	4500	74	P	
78	**Se**	1	**0.165**	ug/l	0.17	24.0	4500	74	P	
88	**Sr**	1	**0.002**	ug/l	0.00	286.7	4500	103	P	
95	**Mo**	1	**0.057**	ug/l	0.06	36.4	4500	103	P	
109	**Ag**	1	**-0.003**	ug/l	0.00	83.6	4500	103	P	
111	**Cd**	1	**0.006**	ug/l	0.01	183.0	4500	103	P	
118	**Sn**	1	**0.199**	ug/l	0.20	11.1	4500	103	P	
123	**Sb**	1	**0.099**	ug/l	0.10	30.2	4500	103	P	
135	**Ba**	1	**0.004**	ug/l	0.00	361.6	4500	103	P	
200	**Hg**	1	**0.014**	ug/l	0.01	4.3	45	209	P	
205	**Tl**	1	**0.269**	ug/l	0.27	9.0	4500	209	P	
208	**Pb**	1	**0.017**	ug/l	0.02	128.6	4500	209	P	
238	**U**	1	**0.008**	ug/l	0.01	23.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80091	2.36	78990	**101.4**	30	-	125	
45	Sc	1	1586742	1.01	1431000	**110.9**	30	-	125	
74	Ge	1	3863104	0.47	3609000	**107.0**	30	-	125	
103	Rh	1	5999435	0.34	5970000	**100.5**	30	-	125	
165	Ho	1	2703185	0.59	2661000	**101.6**	30	-	125	
175	Lu	1	2192236	1.67	2076000	**105.6**	30	-	125	
209	Bi	1	2889042	0.54	2823000	**102.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

91239-HG

Method: Hg Operator: Admin Date of Analysis: 26 Jul 2011 12:01:17

Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
STD 0	344	ug/l	0.137	26 Jul 2011 12:55:03		5296	-	Std	Hg	0.000
STD 1	2334	ug/l	0.315	26 Jul 2011 12:56:41		5297	-	Std	Hg	0.200
STD 2	4956	ug/l	0.546	26 Jul 2011 12:58:20		5298	-	Std	Hg	0.500
STD 3	19285	ug/l	0.324	26 Jul 2011 12:59:58		5299	-	Std	Hg	2.000
STD 4	46849	ug/l	0.525	26 Jul 2011 13:01:38		5300	-	Std	Hg	5.000
STD 5	93529	ug/l	0.473	26 Jul 2011 13:03:24		5301	-	Std	Hg	10.000

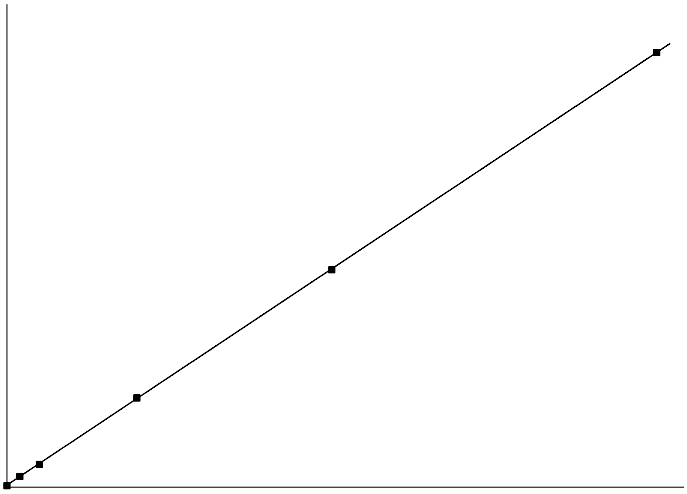
93529 µ Abs

A:0.0000e+000

B:1.0742e-004

C:-4.5087e-002

R:0.9999927



Conc 10.0000

ICV	4.088	ug/l	0.143	26 Jul 2011 13:05:19		5302	Linear	CK STND	Hg	-
ICB	-0.070	ug/l	-0.191	26 Jul 2011 13:07:23		5303	Linear	CK STND	Hg	-
RL	0.195	ug/l	0.454	26 Jul 2011 13:09:18		5304	Linear	CK STND	Hg	-
CCV	5.229	ug/l	0.142	26 Jul 2011 13:10:56		5305	Linear	CK STND	Hg	-
CCB	-0.068	ug/l	-0.130	26 Jul 2011 13:12:34		5306	Linear	CK STND	Hg	-
MB 580-91239/23-A	< 0.000	ug/l	-1.292	26 Jul 2011 13:14:30	TAC103 PB 91239	5307	Linear	SMPL	Hg	-
LCS 580-91239/24-A	2.076	ug/l	0.559	26 Jul 2011 13:16:07	TAC103 PB 91239	5308	Linear	SMPL	Hg	-
LCSD 580-91239/25-A	2.101	ug/l	0.384	26 Jul 2011 13:17:44	TAC103 PB 91239	5309	Linear	SMPL	Hg	-
LCSSRM 580-91239/26-A	3.674	ug/l	0.311	26 Jul 2011 13:19:29	TAC103 PB 91239	5310	Linear	SMPL	Hg	-
580-27549-A-5-B	0.826	ug/l	0.129	26 Jul 2011 13:21:14	TAC103 PB 91239	5311	Linear	SMPL	Hg	-
580-27549-A-5-C DU	0.752	ug/l	0.339	26 Jul 2011 13:23:05	TAC103 PB 91239	5312	Linear	SMPL	Hg	-
580-27549-A-5-D MS	3.314	ug/l	0.140	26 Jul 2011 13:24:44	TAC103 PB 91239	5313	Linear	SMPL	Hg	-
580-27549-A-5-E MSD	2.996	ug/l	0.594	26 Jul 2011 13:26:23	TAC103 PB 91239	5314	Linear	SMPL	Hg	-
580-27549-A-1-F	1.646	ug/l	0.557	26 Jul 2011 13:28:12	TAC103 PB 91239	5315	Linear	SMPL	Hg	-
580-27549-A-2-F	1.330	ug/l	0.252	26 Jul 2011 13:30:00	TAC103 PB 91239	5316	Linear	SMPL	Hg	-
CCV	4.985	ug/l	0.789	26 Jul 2011 13:31:43		5317	Linear	CK STND	Hg	-
CCB	-0.067	ug/l	-0.526	26 Jul 2011 13:33:24		5318	Linear	CK STND	Hg	-
580-27549-A-3-B	1.147	ug/l	0.139	26 Jul 2011 13:35:19	TAC103 PB 91239	5319	Linear	SMPL	Hg	-
580-27549-A-4-B	1.319	ug/l	0.523	26 Jul 2011 13:36:57	TAC103 PB 91239	5320	Linear	SMPL	Hg	-
580-27525-A-6-G	2.226	ug/l	0.262	26 Jul 2011 13:38:38	TAC103 PB 91239	5321	Linear	SMPL	Hg	-
580-27525-A-7-D	1.032	ug/l	0.494	26 Jul 2011 13:40:18	TAC103 PB 91239	5322	Linear	SMPL	Hg	-
580-27556-A-1-B	0.256	ug/l	0.755	26 Jul 2011 13:42:05	TAC103 PB 91239	5323	Linear	SMPL	Hg	-
580-27553-E-1-C	2.642	ug/l	0.053	26 Jul 2011 13:43:45	TAC103 PB 91239	5324	Linear	SMPL	Hg	-
580-27523-A-1-A	0.597	ug/l	0.154	26 Jul 2011 13:45:24	TAC103 PB 91239	5325	Linear	SMPL	Hg	-
580-27544-A-1-C	< 0.000	ug/l	-0.768	26 Jul 2011 13:47:09	TAC103 PB 91239	5326	Linear	SMPL	Hg	-
580-27544-A-2-C	0.039	ug/l	1.277	26 Jul 2011 13:48:48	TAC103 PB 91239	5327	Linear	SMPL	Hg	-
580-27563-D-1-D	1.260	ug/l	0.209	26 Jul 2011 13:50:25	TAC103 PB 91239	5328	Linear	SMPL	Hg	-
CCV	4.942	ug/l	0.442	26 Jul 2011 13:52:02		5329	Linear	CK STND	Hg	-
CCB	-0.064	ug/l	-0.409	26 Jul 2011 13:53:43		5330	Linear	CK STND	Hg	-
580-27563-D-4-F	1.284	ug/l	0.326	26 Jul 2011 13:55:38	TAC103 PB 91239	5331	Linear	SMPL	Hg	-
580-27563-D-7-D	1.039	ug/l	0.295	26 Jul 2011 13:57:16	TAC103 PB 91239	5332	Linear	SMPL	Hg	-
580-27563-D-10-D	1.479	ug/l	0.361	26 Jul 2011 13:58:59	TAC103 PB 91239	5333	Linear	SMPL	Hg	-
580-27563-D-13-D	1.340	ug/l	0.157	26 Jul 2011 14:00:40	TAC103 PB 91239	5334	Linear	SMPL	Hg	-
580-27563-D-15-D	1.000	ug/l	0.027	26 Jul 2011 14:02:22	TAC103 PB 91239	5335	Linear	SMPL	Hg	-
580-27563-D-17-D	0.742	ug/l	0.384	26 Jul 2011 14:04:03	TAC103 PB 91239	5336	Linear	SMPL	Hg	-
CCV	5.021	ug/l	0.371	26 Jul 2011 14:05:43		5337	Linear	CK STND	Hg	-
CCB	-0.072	ug/l	-0.210	26 Jul 2011 14:07:22		5338	Linear	CK STND	Hg	-

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Batch Number: 91183 Batch Start Date: 07/25/11 14:45 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 07/25/11 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-27549-A-2	Weden 1 S1 (6-12)	3050B, 6010B	T	1.0086 g	50 mL				
580-27549-A-2 DU	Weden 1 S1 (6-12)	3050B, 6010B	T	1.1344 g	50 mL				
580-27549-A-2 MS	Weden 1 S1 (6-12)	3050B, 6010B	T	1.0122 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-27549-A-2 MSD	Weden 1 S1 (6-12)	3050B, 6010B	T	1.0440 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-27549-A-1	Weden 1 S1 (0-6)	3050B, 6010B	T	1.0023 g	50 mL				
580-27549-A-3	Weden 1 S2 (0-6)	3050B, 6010B	T	1.1262 g	50 mL				
580-27549-A-4	Weden 1 S2 (6-12)	3050B, 6010B	T	1.1695 g	50 mL				
580-27549-A-5	Weden 2 S1 (0-6)	3050B, 6010B	T	1.1221 g	50 mL				
MB 580-91183/13		3050B, 6010B		1.0 g	50 mL				
LCS 580-91183/14		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-91183/15		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-91183/16		3050B, 6010B		0.5013 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-27549-A-2	Weden 1 S1 (6-12)	3050B, 6010B	T						
580-27549-A-2 DU	Weden 1 S1 (6-12)	3050B, 6010B	T						
580-27549-A-2 MS	Weden 1 S1 (6-12)	3050B, 6010B	T	1 mL					
580-27549-A-2 MSD	Weden 1 S1 (6-12)	3050B, 6010B	T	1 mL					
580-27549-A-1	Weden 1 S1 (0-6)	3050B, 6010B	T						
580-27549-A-3	Weden 1 S2 (0-6)	3050B, 6010B	T						
580-27549-A-4	Weden 1 S2 (6-12)	3050B, 6010B	T						
580-27549-A-5	Weden 2 S1 (0-6)	3050B, 6010B	T						
MB 580-91183/13		3050B, 6010B							
LCS 580-91183/14		3050B, 6010B		1 mL					
LCSD 580-91183/15		3050B, 6010B		1 mL					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Batch Number: 91183 Batch Start Date: 07/25/11 14:45 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 07/25/11 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
LCSSRM 580-91183/16		3050B, 6010B			0.5013 g				

Batch Notes	
Balance ID	SEA 220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	733839
Logbook ID for diluted Nitric	747194
Lot # of Nitric Acid	744520
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Batch Number: 91183 Batch Start Date: 07/25/11 14:45 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 07/25/11 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-27549-A-2	Weden 1 S1 (6-12)	3050B, 6020	T	1.0086 g	50 mL				
580-27549-A-2 DU	Weden 1 S1 (6-12)	3050B, 6020	T	1.1344 g	50 mL				
580-27549-A-2 MS	Weden 1 S1 (6-12)	3050B, 6020	T	1.0122 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-27549-A-2 MSD	Weden 1 S1 (6-12)	3050B, 6020	T	1.0440 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-27549-A-1	Weden 1 S1 (0-6)	3050B, 6020	T	1.0023 g	50 mL				
580-27549-A-3	Weden 1 S2 (0-6)	3050B, 6020	T	1.1262 g	50 mL				
580-27549-A-4	Weden 1 S2 (6-12)	3050B, 6020	T	1.1695 g	50 mL				
580-27549-A-5	Weden 2 S1 (0-6)	3050B, 6020	T	1.1221 g	50 mL				
MB 580-91183/13		3050B, 6020		1.0 g	50 mL				
LCS 580-91183/14		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-91183/15		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-91183/16		3050B, 6020		0.5013 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-27549-A-2	Weden 1 S1 (6-12)	3050B, 6020	T						
580-27549-A-2 DU	Weden 1 S1 (6-12)	3050B, 6020	T						
580-27549-A-2 MS	Weden 1 S1 (6-12)	3050B, 6020	T	1 mL					
580-27549-A-2 MSD	Weden 1 S1 (6-12)	3050B, 6020	T	1 mL					
580-27549-A-1	Weden 1 S1 (0-6)	3050B, 6020	T						
580-27549-A-3	Weden 1 S2 (0-6)	3050B, 6020	T						
580-27549-A-4	Weden 1 S2 (6-12)	3050B, 6020	T						
580-27549-A-5	Weden 2 S1 (0-6)	3050B, 6020	T						
MB 580-91183/13		3050B, 6020							
LCS 580-91183/14		3050B, 6020		1 mL					
LCSD 580-91183/15		3050B, 6020		1 mL					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Batch Number: 91183 Batch Start Date: 07/25/11 14:45 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 07/25/11 17:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
LCSSRM 580-91183/16		3050B, 6020			0.5013 g				

Batch Notes	
Balance ID	SEA 220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	733839
Logbook ID for diluted Nitric	747194
Lot # of Nitric Acid	744520
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Batch Number: 91239 Batch Start Date: 07/26/11 11:15 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 07/26/11 12:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_CAL_WORK 00008	SRMsolid 00006		
580-27549-A-5	Weden 2 S1 (0-6)	7471A, 7471A	T	0.6900 g	50 mL				
580-27549-A-5 DU	Weden 2 S1 (0-6)	7471A, 7471A	T	0.6622 g	50 mL				
580-27549-A-5 MS	Weden 2 S1 (0-6)	7471A, 7471A	T	0.7375 g	50 mL	1 mL			
580-27549-A-5 MSD	Weden 2 S1 (0-6)	7471A, 7471A	T	0.6259 g	50 mL	1 mL			
580-27549-A-1	Weden 1 S1 (0-6)	7471A, 7471A	T	0.5905 g	50 mL				
580-27549-A-2	Weden 1 S1 (6-12)	7471A, 7471A	T	0.6993 g	50 mL				
580-27549-A-3	Weden 1 S2 (0-6)	7471A, 7471A	T	0.6563 g	50 mL				
580-27549-A-4	Weden 1 S2 (6-12)	7471A, 7471A	T	0.6109 g	50 mL				
MB 580-91239/23		7471A, 7471A		0.6 g	50 mL				
LCS 580-91239/24		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSD 580-91239/25		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSSRM 580-91239/26		7471A, 7471A		0.1011 g	50 mL		0.1011 g		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Batch Number: 91239 Batch Start Date: 07/26/11 11:15 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 07/26/11 12:45

Batch Notes	
Hydroxylamine Hydrochloride Lot	745486
Balance ID	SEA204
Lot # of hydrochloric acid	733839
Lot # of Nitric Acid	744520
Hood ID or number	06
Hot Block ID number	38009
Potassium Persulfate Lot Number	654652
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP
Pipette ID	20051014
Stannous Chloride Lot Number	654645
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG No.:

Project: Monte Cristo WA. (17800-06)

Client Sample ID	Lab Sample ID
Weden 1 S1 (0-6)	580-27549-1
Weden 1 S1 (6-12)	580-27549-2
Weden 1 S2 (0-6)	580-27549-3
Weden 1 S2 (6-12)	580-27549-4
Weden 2 S1 (0-6)	580-27549-5

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Weden 1 S1 (0-6)
Lab Sample ID: 580-27549-1
Lab Name: TestAmerica Seattle
Job No.: 580-27549-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/09/2011 16:00
Reporting Basis: WET
Date Received: 07/21/2011 10:30

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.93			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Weden 1 S1 (6-12) Lab Sample ID: 580-27549-2

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG ID.:

Matrix: Solid Date Sampled: 07/09/2011 16:10

Reporting Basis: WET Date Received: 07/21/2011 10:30

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.12			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Weden 1 S2 (0-6)
Lab Sample ID: 580-27549-3
Lab Name: TestAmerica Seattle
Job No.: 580-27549-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/12/2011 13:04
Reporting Basis: WET
Date Received: 07/21/2011 10:30

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.52			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Weden 1 S2 (6-12)
Lab Sample ID: 580-27549-4
Lab Name: TestAmerica Seattle
Job No.: 580-27549-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/12/2011 13:10
Reporting Basis: WET
Date Received: 07/21/2011 10:30

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.46			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Weden 2 S1 (0-6)
Lab Sample ID: 580-27549-5
Lab Name: TestAmerica Seattle
Job No.: 580-27549-1
SDG ID.:
Matrix: Solid
Date Sampled: 07/12/2011 15:30
Reporting Basis: WET
Date Received: 07/21/2011 10:30

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.97			SU			1	9045C

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Analyst: SH Batch Start Date: 07/25/2011

Reporting Units: SU Analytical Batch No.: 91154

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	11:59	pH	7.030	7.00	100			pH 7 ICV_00002
20	CCV	11:59	pH	7.040	7.00	101			pH 7 ICV_00002

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job Number: 580-27549-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045C

Start Date: 07/25/2011 11:59 End Date: 07/25/2011 11:59

Lab Sample ID	D/F	Type	Time	Analytes: pH
ICV 580-91154/1	1		11:59	X
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
ZZZZZZ			11:59	
580-27549-5	1	T	11:59	X
ZZZZZZ			11:59	
ZZZZZZ			11:59	
580-27549-3	1	T	11:59	X
580-27549-4	1	T	11:59	X
580-27549-2	1	T	11:59	X
580-27549-1	1	T	11:59	X
CCV 580-91154/20	1		11:59	X

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 07/25/2011 16:04 End Date: 07/25/2011 16:04

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
580-27549-2	1	T	16:04	X	X																		
580-27549-2 DU	1	T	16:04	X	X																		
580-27549-1	1	T	16:04	X	X																		
580-27549-3	1	T	16:04	X	X																		
580-27549-4	1	T	16:04	X	X																		
580-27549-5	1	T	16:04	X	X																		
ZZZZZZ			16:04																				
ZZZZZZ			16:04																				

Prep Types

T = Total/NA

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Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst SH Date 7/25/11 Instrument ID pH2

Batch 91154 Start Time 11:20 End Time 11:50

Calibration

pH 4 Std.	TALS ID: 756336	Slope =	100%	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756339	Slope =	96.9%	
pH 10 Std.	TALS ID: 756338	Slope =	95.5%	
For Orion 370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.05	7.03	7.03	(±0.05 units) Yes / No
1	27363-A-1	7.40	7.41	7.41	
2	27557-A-4	4.81	4.84	4.84	
3	27557-A-4 dup	4.83	4.84	4.84	
4	27557-A-5	7.36	7.44	7.44	
5	27557-A-6	4.79	4.77	4.77	
6	27557-A-7	5.21	5.23	5.23	
7	27376-A-1	8.96	9.02	9.02	
8	27492-A-3	7.39	7.39	7.39	
9	27492-A-2	7.72	7.73	7.73	
10	27492-A-1	7.47	7.47	7.47	
11	27557-A-2	5.58	5.58	5.58	
12	27549-A-5	6.99	6.97	6.97	
13	27557-A-3	4.74	4.77	4.77	
14	27557A-1	4.72	4.73	4.73	
15	27549-A-3	6.47	6.52	6.52	
16	27549-A-4	6.45	6.46	6.46	
17	27549-A-2	5.13	5.12	5.12	
18	27549-A-1	4.93	4.93	4.93	
19					
20					
Closing CCV	pH7 Std. TALS ID:	7.03	7.04	7.04	(±0.05 units) Yes / No

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units) Yes / No

Reviewer's Initals and Date

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Batch Number: 91154 Batch Start Date: 07/25/11 11:59 Batch Analyst: Hawn, Stevie

Batch Method: 9045C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pH 7 ICV 00002					
ICV 580-91154/1		9045C		30 mL					
CCV 580-91154/20		9045C		30 mL					

Batch Notes	
pH Buffer 1 ID	756336
pH Buffer 2 ID	756339
pH Buffer 3 ID	756338
Instrument ID	pH 2

Basis	Basis Description

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-27549-1

SDG No.:

Batch Number: 91191 Batch Start Date: 07/25/11 16:04 Batch Analyst: Froyland, Zoe

Batch Method: Moisture Batch End Date: 07/26/11 08:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
580-27549-A-2	Weden 1 S1 (6-12)	Moisture	T	0.7709 g	4.8938 g	3.6233 g			
580-27549-A-2 DU	Weden 1 S1 (6-12)	Moisture	T	0.7725 g	6.0282 g	4.3671 g			
580-27549-A-1	Weden 1 S1 (0-6)	Moisture	T	0.7899 g	3.1994 g	3.1377 g			
580-27549-A-3	Weden 1 S2 (0-6)	Moisture	T	0.8103 g	7.0284 g	6.8266 g			
580-27549-A-4	Weden 1 S2 (6-12)	Moisture	T	0.7803 g	7.5947 g	7.4317 g			
580-27549-A-5	Weden 2 S1 (0-6)	Moisture	T	0.7832 g	5.7930 g	5.5014 g			

Batch Notes	
Balance ID	SEA 220 No Unit
Date samples were placed in the oven	7/25/11
Oven Temp when samples are put in oven	109 CORRECTED-TEMP Degrees C
Time samples were place in the oven	1630
Date samples were removed from oven	7/26/11
Oven Temp when samples removed from oven	108 CORRECTED-TEMP Degrees C
Time Samples were removed from oven	0840
Oven ID	SEA304
ID number of the thermometer	14-985-C-1
Uncorrected In Temperature	110 Celsius
Uncorrected Out Temperature	108 Celsius

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

TestAmerica
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TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☐ Short Hold

Chain of Custody Record

Client: HART CROWSER	Client Contact: Michelle Havey	Date: 7-21-11	Chain of Custody Number: 10944
Address: 1700 Westlake Ave N STE #200	Telephone Number (Area Code)/Fax Number: (206) 683-9199	Lab Number: 27549	Page 1 of 1
City: Seattle / State: WA / Zip Code: 98109	Sampler: ASK/CAA/MAH	Lab Contact:	
Project Name and Location (State): Monte Cristo, WA (17800-06)	Billing Contact:		
Contract/Purchase Order/Quote No.: Quote #580049975			

	Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis (Attach list if more space is needed): see attached	Special Instructions/ Conditions of Receipt
-1	Weden 1 S1 (0-6)	7/9/11	1600				X	X						X	
-2	Weden 1 S1 (6-12)	7/9/11	1610				X	X						X	
-3	Weden 1 S2 (0-6)	7/12/11	1304				X	X						X	
-4	Weden 1 S2 (6-12)	7/12/11	1310				X	X						X	
-5	Weden 2 S1 (0-6)	7/12/11	1530				X	X						X	
															Private Coyr. Med Red/wh A2TB=1.3/1.0 wet/other

Cooler: ☒ Yes ☐ No Cooler Temp:_____
Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☒ Unknown
Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☒ Archive For 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☒ 15 Days ☐ Other _____
QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By Sign/Print: Michelle Havey	7/21/11	0847	1. Received By Sign/Print: Tom Blankinship	7/21/11	1030
2. Relinquished By Sign/Print:			2. Received By Sign/Print:		
3. Relinquished By Sign/Print:			3. Received By Sign/Print:		

Comments:

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 580-27549-1

Login Number: 27549

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

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ANALYTICAL REPORT

Job Number: 580-28356-1

Job Description: Monte Cristo 17800-06

For:
Hart Crowser, Inc.
1700 Westlake Avenue N
Suite 200
Seattle, WA 98109-3056

Attention: Roger McGinnis

Approved for release.
Kristine Allen
Project Manager I
10/19/2011 5:35 PM

Kristine Allen
Project Manager I
kristine.allen@testamericainc.com
10/19/2011

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The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

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CASE NARRATIVE

Client: Hart Crowser, Inc.
Project: Monte Cristo 17800-06
Report Number: 580-28356-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 08/30/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 2.0 C.

The container label for sample W-16 (580-28356-22) does not list a sample time or date. The Chain of Custody (COC) lists a sample date and time of 8/23/2011 at 15:25. The sample was logged in according to the COC.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples W-12 (580-28356-1), W-10 (580-28356-2), W-9 (580-28356-3), W-13 (580-28356-4), W-15 (580-28356-5), W-14 (580-28356-6), G-1 (580-28356-7), G-2 (580-28356-8), G-3 (580-28356-9), G-4 (580-28356-10), G-5 (580-28356-11), Potomac 2 (0-6) (580-28356-13), Potomac 2 (6-12) (580-28356-14), Potomac 3 (0-6) (580-28356-15), Potomac 3 (6-12) (580-28356-16), IXL 1 (0-6) (580-28356-17), IXL 1 (6-12) (580-28356-18), IXL 2 (0-6) (580-28356-19), IXL 2 (6-12) (580-28356-20), W-8 (580-28356-21), W-16 (580-28356-22) and W-11 (580-28356-23) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 09/12/2011 and analyzed on 09/13/2011 and 09/14/2011.

Calcium and Iron were detected in method blank MB 580-95118/16-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Samples W-9 (580-28356-3)[100X], W-13 (580-28356-4)[100X], W-15 (580-28356-5)[100X], G-1 (580-28356-7)[100X], G-4 (580-28356-10)[100X], IXL 1 (0-6) (580-28356-17)[100X], IXL 1 (6-12) (580-28356-18)[100X], IXL 2 (0-6) (580-28356-19)[100X], IXL 2 (6-12) (580-28356-20)[100X] and W-8 (580-28356-21)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Iron failed the recovery criteria high for the matrix spike/matrix spike duplicate (MS/MSD) of sample W-12MS (580-28356-1) in batch 580-95314. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Magnesium failed the recovery criteria low for the MS of sample G-5MS (580-28356-11) in batch 580-95314. Iron failed the recovery criteria high. Magnesium failed the recovery criteria low for the MSD of sample G-5MSD (580-28356-11) in batch 580-95314. Iron failed the recovery criteria high. The associated laboratory control sample (LCS) recovery met acceptance criteria. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS)

Samples W-12 (580-28356-1), W-10 (580-28356-2), W-9 (580-28356-3), W-13 (580-28356-4), W-15 (580-28356-5), W-14 (580-28356-6), G-1 (580-28356-7), G-2 (580-28356-8), G-3 (580-28356-9), G-4 (580-28356-10), G-5 (580-28356-11), Potomac 2 (0-6) (580-28356-13), Potomac 2 (6-12) (580-28356-14), Potomac 3 (0-6) (580-28356-15), Potomac 3 (6-12) (580-28356-16), IXL 1 (0-6) (580-28356-17), IXL 1 (6-12) (580-28356-18), IXL 2 (0-6) (580-28356-19), IXL 2 (6-12) (580-28356-20), W-8 (580-28356-21), W-16 (580-28356-22) and W-11 (580-28356-23) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 09/12/2011 and analyzed on 09/13/2011 and 09/14/2011.

Barium was detected in method blank MB 580-95113/21-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Samples IXL 1 (0-6) (580-28356-17)[1000X], IXL 1 (6-12) (580-28356-18)[1000X], IXL 2 (0-6) (580-28356-19)[1000X] and IXL 2 (6-12) (580-28356-20)[1000X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Recovery values for several of the matrix spike / matrix spike duplicate (MS/MSD) compounds for sample W-12MS/MSD (580-28356-1) in batch 580-95318 were outside advisory QC limits. Matrix interference is indicated based on acceptable LCS/LCSD recovery and/or RPD. The affected data have been qualified "4" or "F" and are reported. The duplicate relative percent difference (RPD) for several compounds in batch 580-95318 was outside the control limits due to non homogeneity of the sample. The associated laboratory control sample (LCS) recovery met acceptance criteria.

Recovery values for several of the matrix spike / matrix spike duplicate (MS/MSD) compounds for sample G-5MSD (580-28356-11) in batch 580-95318 were outside advisory QC limits. Zinc exceeded the rpd limit.
Matrix interference is indicated based on acceptable LCS/LCSD recovery and/or RPD. The affected data have been qualified "4" or "F" and are reported.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP) WITH MULTI-INCREMENTAL PREPARATION

Sample Potomac 1 (580-28356-12) was analyzed for total metals (ICP) with multi-incremental preparation in accordance with EPA SW-846 Method 6010B. The samples were leached on 09/12/2011, prepared on 09/15/2011 and analyzed on 09/16/2011.

Iron was detected in method blank MB 580-95447/18-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Sample Potomac 1 (580-28356-12) required a [10X] and [100X] dilution to put some compounds within the calibration range of the instrument. The reporting limits have been adjusted accordingly.

Iron and Magnesium failed the recovery criteria low for the MS of sample Potomac 1MS (580-28356-12) in batch 580-95537. Calcium failed the recovery criteria high. Calcium, Iron, Magnesium and Potassium failed the recovery criteria high for the MSD of sample Potomac 1MSD (580-28356-12) in batch 580-95537. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other difficulties were encountered during the total metals (ICP) with multi-incremental preparation analysis.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICP/MS) WITH MULTI-INCREMENTAL PREPARATION

Sample Potomac 1 (580-28356-12) was analyzed for total metals (ICP/MS) with multi-incremental preparation in accordance with draft Guidance on Multi-Increment Soil Sampling and EPA SW-846 Method 6020. The samples were leached on 09/12/2011, prepared on 09/15/2011 and analyzed on 09/16/2011.

Lead was detected in method blank MB 580-95447/18-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Sample Potomac 1 (580-28356-12) required a [100X] and [1000X] dilution to put some compounds within the calibration range of the instrument. The reporting limits have been adjusted accordingly.

Antimony and Arsenic failed the recovery criteria low for the MS of sample Potomac 1MS (580-28356-12) in batch 580-95520. Several compounds failed the recovery criteria high. For the MSD of sample Potomac 1MSD (580-28356-12) in batch 580-95520, Antimony failed the recovery criteria low. Several compounds failed the recovery criteria high. Also, Cadmium and Zinc exceeded the relative percent difference (RPD) limit. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other difficulties were encountered during the total metals (ICP/MS) with multi-incremental preparation analysis.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples W-12 (580-28356-1), W-10 (580-28356-2), W-9 (580-28356-3), W-13 (580-28356-4), W-15 (580-28356-5), W-14 (580-28356-6), G-1 (580-28356-7), G-2 (580-28356-8), G-3 (580-28356-9), G-4 (580-28356-10), G-5 (580-28356-11), Potomac 2 (0-6) (580-28356-13), Potomac 2 (6-12) (580-28356-14), Potomac 3 (0-6) (580-28356-15), Potomac 3 (6-12) (580-28356-16), IXL 1 (0-6) (580-28356-17), IXL 1 (6-12) (580-28356-18), IXL 2 (0-6) (580-28356-19), IXL 2 (6-12) (580-28356-20), W-8 (580-28356-21), W-16 (580-28356-22) and W-11 (580-28356-23) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared on 09/11/2011 and 09/13/2011 and analyzed on 09/13/2011.

Samples IXL 1 (0-6) (580-28356-17)[5X], IXL 2 (0-6) (580-28356-19)[5X] and IXL 2 (6-12) (580-28356-20)[5X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No difficulties were encountered during the mercury analyses.

All quality control parameters were within the acceptance limits.

MERCURY WITH MULTI-INCREMENTAL PREPARATION

Sample Potomac 1 (580-28356-12) was analyzed for mercury with multi-incremental preparation in accordance with Draft Guidance on Multi-Incremental Soil Sampling and EPA SW-846 Method 7471A. The samples were leached on 09/12/2011, and prepared and analyzed on 09/15/2011.

Mercury failed the recovery criteria high for the MSD of sample Potomac 1MSD (580-28356-12) in batch 580-95485. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount. The associated laboratory control sample (LCS) recovery met acceptance criteria.

No other difficulties were encountered during the mercury with multi-incremental preparation analysis.

All other quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Samples W-12 (580-28356-1), W-10 (580-28356-2), W-9 (580-28356-3), W-13 (580-28356-4), W-15 (580-28356-5), W-14 (580-28356-6), G-1 (580-28356-7), G-2 (580-28356-8), G-3 (580-28356-9), G-4 (580-28356-10), G-5 (580-28356-11), Potomac 2 (0-6) (580-28356-13), Potomac 2 (6-12) (580-28356-14), Potomac 3 (0-6) (580-28356-15), Potomac 3 (6-12) (580-28356-16), IXL 1 (0-6) (580-28356-17), IXL 1 (6-12) (580-28356-18), IXL 2 (0-6) (580-28356-19), IXL 2 (6-12) (580-28356-20), W-8 (580-28356-21), W-16 (580-28356-22) and W-11 (580-28356-23) were analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045C. The samples were analyzed on 09/11/2011.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples W-12 (580-28356-1), W-10 (580-28356-2), W-9 (580-28356-3), W-13 (580-28356-4), W-15 (580-28356-5), W-14 (580-28356-6), G-1 (580-28356-7), G-2 (580-28356-8), G-3 (580-28356-9), G-4 (580-28356-10), G-5 (580-28356-11), Potomac 2 (0-6) (580-28356-13), Potomac 2 (6-12) (580-28356-14), Potomac 3 (0-6) (580-28356-15), Potomac 3 (6-12) (580-28356-16), IXL 1 (0-6) (580-28356-17), IXL 1 (6-12) (580-28356-18), IXL 2 (0-6) (580-28356-19), IXL 2 (6-12) (580-28356-20), W-8 (580-28356-21), W-16 (580-28356-22) and W-11 (580-28356-23) were analyzed for percent solids in accordance with EPA Method 160.3 Modified. The samples were analyzed on 09/11/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-28356-1	W-12	Solid	08/24/2011 1237	08/30/2011 1220
580-28356-2	W-10	Solid	08/24/2011 1245	08/30/2011 1220
580-28356-3	W-9	Solid	08/24/2011 1343	08/30/2011 1220
580-28356-4	W-13	Solid	08/24/2011 1350	08/30/2011 1220
580-28356-5	W-15	Solid	08/24/2011 1430	08/30/2011 1220
580-28356-6	W-14	Solid	08/24/2011 1430	08/30/2011 1220
580-28356-7	G-1	Solid	08/25/2011 1030	08/30/2011 1220
580-28356-8	G-2	Solid	08/25/2011 1055	08/30/2011 1220
580-28356-9	G-3	Solid	08/25/2011 1135	08/30/2011 1220
580-28356-10	G-4	Solid	08/25/2011 1310	08/30/2011 1220
580-28356-11	G-5	Solid	08/25/2011 1550	08/30/2011 1220
580-28356-12	Potomac 1	Solid	08/26/2011 1230	08/30/2011 1220
580-28356-13	Potomac 2 (0-6)	Solid	08/26/2011 1320	08/30/2011 1220
580-28356-14	Potomac 2 (6-12)	Solid	08/26/2011 1324	08/30/2011 1220
580-28356-15	Potomac 3 (0-6)	Solid	08/26/2011 1333	08/30/2011 1220
580-28356-16	Potomac 3 (6-12)	Solid	08/26/2011 1340	08/30/2011 1220
580-28356-17	IXL 1 (0-6)	Solid	08/26/2011 1447	08/30/2011 1220
580-28356-18	IXL 1 (6-12)	Solid	08/26/2011 1455	08/30/2011 1220
580-28356-19	IXL 2 (0-6)	Solid	08/26/2011 1458	08/30/2011 1220
580-28356-20	IXL 2 (6-12)	Solid	08/26/2011 1502	08/30/2011 1220
580-28356-21	W-8	Solid	08/23/2011 1500	08/30/2011 1220
580-28356-22	W-16	Solid	08/23/2011 1525	08/30/2011 1220
580-28356-23	W-11	Solid	08/24/2011 1125	08/30/2011 1220

METHOD SUMMARY

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Metals (ICP)	TAL SEA	SW846 6010B	
Preparation, Metals	TAL SEA		SW846 3050B
Metals (ICP)	TAL SEA	SW846 6010B	
Incremental Sample Preparation	TAL SEA		EPA Increm, Prep
Preparation, Metals	TAL SEA		SW846 3050B
Metals (ICP/MS)	TAL SEA	SW846 6020	
Preparation, Metals	TAL SEA		SW846 3050B
Metals (ICP/MS)	TAL SEA	SW846 6020	
Incremental Sample Preparation	TAL SEA		EPA Increm, Prep
Preparation, Metals	TAL SEA		SW846 3050B
Mercury (CVAA)	TAL SEA	SW846 7471A	
Preparation, Mercury	TAL SEA		SW846 7471A
Mercury (CVAA)	TAL SEA	SW846 7471A	
Incremental Sample Preparation	TAL SEA		EPA Increm, Prep
Preparation, Mercury	TAL SEA		SW846 7471A
pH	TAL SEA	SW846 9045C	
Percent Moisture	TAL SEA	EPA Moisture	

Lab References:

TAL SEA = TestAmerica Seattle

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-12**

Lab Sample ID: 580-28356-1 Date Sampled: 08/24/2011 1237
Client Matrix: Solid % Moisture: 27.2 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1006 g
Analysis Date:	09/13/2011 1609			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		290		20	210
Calcium		810		3.9	69
Iron		29000		0.76	12
Magnesium		3900		4.0	69

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	052SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1006 g
Analysis Date:	09/13/2011 2006			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		28000		3.7	37
Antimony		0.27		0.052	0.25
Arsenic		12		0.22	0.62
Beryllium		0.26		0.027	0.25
Cadmium		0.22	J	0.010	0.25
Chromium		29		0.14	0.25
Copper		36		0.12	0.25
Lead		9.1		0.016	0.25
Manganese		190		0.21	0.62
Nickel		21		0.25	0.25
Selenium		0.72	J	0.25	0.87
Silver		0.21	J	0.015	0.25
Thallium		ND		0.16	0.62
Zinc		39		1.4	0.87
Barium		38	B	0.037	0.25
Cobalt		7.0		0.024	0.25
Sodium		87	J	49	120
Vanadium		74		0.59	0.87

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6882 g
Analysis Date:	09/13/2011 1231			Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.15		0.0063	0.020

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-12**

Lab Sample ID: 580-28356-1 Date Sampled: 08/24/2011 1237

Client Matrix: Solid % Moisture: 27.2 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-10**

Lab Sample ID: 580-28356-2 Date Sampled: 08/24/2011 1245
Client Matrix: Solid % Moisture: 25.7 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0265 g
Analysis Date:	09/13/2011 1658			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		150	J	21	220
Calcium		130		4.1	72
Iron		12000		0.80	13
Magnesium		340		4.2	72

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	062SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0265 g
Analysis Date:	09/13/2011 2050			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6100		3.9	39
Antimony		0.17	J	0.055	0.26
Arsenic		3.5		0.24	0.66
Beryllium		0.073	J	0.029	0.26
Cadmium		0.092	J	0.010	0.26
Chromium		8.6		0.15	0.26
Copper		11		0.13	0.26
Lead		5.8		0.017	0.26
Manganese		32		0.22	0.66
Nickel		3.9		0.27	0.26
Selenium		0.42	J	0.26	0.92
Silver		0.13	J	0.016	0.26
Thallium		ND		0.17	0.66
Zinc		19		1.5	0.92
Barium		9.1	B	0.039	0.26
Cobalt		1.7		0.025	0.26
Sodium		110	J	51	130
Vanadium		29		0.62	0.92

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6326 g
Analysis Date:	09/13/2011 1238			Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.11		0.0067	0.021

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-10**

Lab Sample ID: 580-28356-2 Date Sampled: 08/24/2011 1245
Client Matrix: Solid % Moisture: 25.7 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-9**

Lab Sample ID: 580-28356-3 Date Sampled: 08/24/2011 1343
Client Matrix: Solid % Moisture: 10.8 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0561 g
Analysis Date:	09/13/2011 1705			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		250		17	180
Calcium		570		3.3	58
Magnesium		2400		3.4	58

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.0561 g
Analysis Date:	09/14/2011 1135			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		37000		65	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	063SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0561 g
Analysis Date:	09/13/2011 2054			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		23000		3.2	32
Antimony		0.27		0.045	0.21
Arsenic		8.5		0.19	0.53
Beryllium		0.35		0.023	0.21
Cadmium		0.16	J	0.0085	0.21
Chromium		27		0.12	0.21
Copper		24		0.10	0.21
Lead		10		0.014	0.21
Manganese		200		0.18	0.53
Nickel		16		0.22	0.21
Selenium		0.47	J	0.21	0.74
Silver		0.15	J	0.013	0.21
Thallium		0.15	J	0.14	0.53
Zinc		40		1.2	0.74
Barium		53	B	0.032	0.21
Cobalt		6.0		0.020	0.21
Sodium		110		42	110
Vanadium		120		0.50	0.74

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-9**

Lab Sample ID: 580-28356-3 Date Sampled: 08/24/2011 1343
Client Matrix: Solid % Moisture: 10.8 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6087 g
Analysis Date:	09/13/2011 1240			Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.095		0.0058	0.018

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-13**

Lab Sample ID: 580-28356-4 Date Sampled: 08/24/2011 1350
Client Matrix: Solid % Moisture: 20.2 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1543 g
Analysis Date:	09/13/2011 1712			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		610		17	180
Calcium		1400		3.4	60
Magnesium		10000		3.5	60

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.1543 g
Analysis Date:	09/14/2011 1142			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		46000		66	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	064SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1543 g
Analysis Date:	09/13/2011 2059			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		61000		3.3	33
Antimony		0.36		0.046	0.22
Arsenic		15		0.20	0.54
Beryllium		0.94		0.024	0.22
Cadmium		0.29		0.0087	0.22
Chromium		64		0.12	0.22
Copper		77		0.11	0.22
Lead		12		0.014	0.22
Manganese		410		0.18	0.54
Nickel		71		0.22	0.22
Selenium		1.2		0.22	0.76
Silver		0.17	J	0.013	0.22
Thallium		0.18	J	0.14	0.54
Zinc		120		1.2	0.76
Barium		77	B	0.033	0.22
Cobalt		22		0.021	0.22
Sodium		80	J	43	110
Vanadium		82		0.51	0.76

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-13**

Lab Sample ID: 580-28356-4 Date Sampled: 08/24/2011 1350
Client Matrix: Solid % Moisture: 20.2 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.8186 g
Analysis Date:	09/13/2011 1245			Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.18		0.0048	0.015

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-15**

Lab Sample ID: 580-28356-5 Date Sampled: 08/24/2011 1430
Client Matrix: Solid % Moisture: 14.0 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1184 g
Analysis Date:	09/13/2011 1718			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		690		17	170
Calcium		840		3.2	57
Magnesium		22000		3.3	57

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.1184 g
Analysis Date:	09/14/2011 1149			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		40000		63	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	065SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1184 g
Analysis Date:	09/13/2011 2103			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		31000		3.1	31
Antimony		0.34		0.044	0.21
Arsenic		25		0.19	0.52
Beryllium		0.64		0.023	0.21
Cadmium		0.16	J	0.0083	0.21
Chromium		100		0.12	0.21
Copper		280		0.10	0.21
Lead		9.7		0.014	0.21
Manganese		530		0.18	0.52
Nickel		320		0.21	0.21
Selenium		0.70	J	0.21	0.73
Silver		0.21		0.012	0.21
Thallium		0.25	J	0.14	0.52
Zinc		89		1.2	0.73
Barium		77	B	0.031	0.21
Cobalt		28		0.020	0.21
Sodium		130		41	100
Vanadium		64		0.49	0.73

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-15**

Lab Sample ID: 580-28356-5 Date Sampled: 08/24/2011 1430
Client Matrix: Solid % Moisture: 14.0 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.9619 g
Analysis Date:	09/13/2011 1247			Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.079		0.0038	0.012

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-14**

Lab Sample ID: 580-28356-6 Date Sampled: 08/24/2011 1430
Client Matrix: Solid % Moisture: 5.5 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1103 g
Analysis Date:	09/13/2011 1725			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		270		15	160
Calcium		290		3.0	52
Iron		23000		0.58	9.5
Magnesium		3400		3.0	52

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	066SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1103 g
Analysis Date:	09/13/2011 2107			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		19000		2.9	29
Antimony		0.26		0.040	0.19
Arsenic		11		0.17	0.48
Beryllium		0.14	J	0.021	0.19
Cadmium		0.12	J	0.0076	0.19
Chromium		21		0.11	0.19
Copper		28		0.093	0.19
Lead		8.3		0.012	0.19
Manganese		110		0.16	0.48
Nickel		19		0.19	0.19
Selenium		0.50	J	0.19	0.67
Silver		0.11	J	0.011	0.19
Thallium		ND		0.12	0.48
Zinc		32		1.1	0.67
Barium		19	B	0.029	0.19
Cobalt		5.5		0.018	0.19
Sodium		72	J	37	95
Vanadium		47		0.45	0.67

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7072 g
Analysis Date:	09/13/2011 1520			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.13		0.0047	0.015

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-14**

Lab Sample ID: 580-28356-6 Date Sampled: 08/24/2011 1430
Client Matrix: Solid % Moisture: 5.5 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-1**

Lab Sample ID: 580-28356-7 Date Sampled: 08/25/2011 1030
Client Matrix: Solid % Moisture: 7.4 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0731 g
Analysis Date:	09/13/2011 1732			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1400		16	170
Calcium		620		3.1	55
Magnesium		8600		3.2	55

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.0731 g
Analysis Date:	09/14/2011 1156			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		36000		61	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	067SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0731 g
Analysis Date:	09/13/2011 2112			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		34000		3.0	30
Antimony		1.3		0.042	0.20
Arsenic		110		0.18	0.50
Beryllium		0.87		0.022	0.20
Cadmium		0.33		0.0081	0.20
Chromium		77		0.11	0.20
Copper		400		0.099	0.20
Lead		43		0.013	0.20
Manganese		470		0.17	0.50
Nickel		81		0.20	0.20
Selenium		1.7		0.20	0.70
Silver		0.49		0.012	0.20
Thallium		0.27	J	0.13	0.50
Zinc		120		1.1	0.70
Barium		51	B	0.030	0.20
Cobalt		31		0.019	0.20
Sodium		170		39	100
Vanadium		80		0.48	0.70

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-1**

Lab Sample ID: 580-28356-7 Date Sampled: 08/25/2011 1030
Client Matrix: Solid % Moisture: 7.4 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.8442 g
Analysis Date:	09/13/2011 1527			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.043		0.0040	0.013

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-2**

Lab Sample ID: 580-28356-8 Date Sampled: 08/25/2011 1055
Client Matrix: Solid % Moisture: 19.1 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1750 g
Analysis Date:	09/13/2011 1739			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		640		17	170
Calcium		1200		3.3	58
Iron		18000		0.64	11
Magnesium		3100		3.4	58

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	068SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1750 g
Analysis Date:	09/13/2011 2116			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		23000		3.2	32
Antimony		1.4		0.044	0.21
Arsenic		60		0.19	0.53
Beryllium		0.40		0.023	0.21
Cadmium		0.44		0.0084	0.21
Chromium		40		0.12	0.21
Copper		88		0.10	0.21
Lead		32		0.014	0.21
Manganese		1700		0.18	0.53
Nickel		31		0.21	0.21
Selenium		0.92		0.21	0.74
Silver		0.52		0.013	0.21
Thallium		0.21	J	0.14	0.53
Zinc		75		1.2	0.74
Barium		66	B	0.032	0.21
Cobalt		8.8		0.020	0.21
Sodium		120		41	110
Vanadium		46		0.50	0.74

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6816 g
Analysis Date:	09/13/2011 1529			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.17		0.0057	0.018

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-2**

Lab Sample ID: 580-28356-8 Date Sampled: 08/25/2011 1055
Client Matrix: Solid % Moisture: 19.1 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-3**

Lab Sample ID: 580-28356-9 Date Sampled: 08/25/2011 1135
Client Matrix: Solid % Moisture: 9.8 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1122 g
Analysis Date:	09/13/2011 1746			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		280		16	160
Calcium		380		3.1	55
Iron		5700		0.61	10
Magnesium		270		3.2	55

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	069SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1122 g
Analysis Date:	09/13/2011 2120			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4200		3.0	30
Antimony		0.26		0.042	0.20
Arsenic		6.2		0.18	0.50
Beryllium		0.077	J	0.022	0.20
Cadmium		0.057	J	0.0080	0.20
Chromium		6.7		0.11	0.20
Copper		13		0.098	0.20
Lead		9.3		0.013	0.20
Manganese		94		0.17	0.50
Nickel		4.1		0.20	0.20
Selenium		0.33	J	0.20	0.70
Silver		0.56		0.012	0.20
Thallium		ND		0.13	0.50
Zinc		15		1.1	0.70
Barium		19	B	0.030	0.20
Cobalt		2.0		0.019	0.20
Sodium		110		39	100
Vanadium		24		0.47	0.70

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6657 g
Analysis Date:	09/13/2011 1534			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.056		0.0052	0.017

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-3**

Lab Sample ID: 580-28356-9 Date Sampled: 08/25/2011 1135
Client Matrix: Solid % Moisture: 9.8 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-4**

Lab Sample ID: 580-28356-10 Date Sampled: 08/25/2011 1310
Client Matrix: Solid % Moisture: 3.4 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0181 g
Analysis Date:	09/13/2011 1753			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		510		16	170
Calcium		540		3.2	56
Magnesium		2000		3.3	56

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.0181 g
Analysis Date:	09/14/2011 1202			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		27000		62	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95113	Lab File ID:	070SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0181 g
Analysis Date:	09/13/2011 2124			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		11000		3.1	31
Antimony		0.37		0.043	0.20
Arsenic		19		0.18	0.51
Beryllium		0.18	J	0.022	0.20
Cadmium		0.21		0.0081	0.20
Chromium		27		0.11	0.20
Copper		73		0.10	0.20
Lead		15		0.013	0.20
Manganese		170		0.17	0.51
Nickel		14		0.21	0.20
Selenium		0.66	J	0.21	0.71
Silver		0.23		0.012	0.20
Thallium		0.13	J	0.13	0.51
Zinc		26		1.1	0.71
Barium		66	B	0.031	0.20
Cobalt		5.9		0.019	0.20
Sodium		82	J	40	100
Vanadium		83		0.48	0.71

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-4**

Lab Sample ID: 580-28356-10 Date Sampled: 08/25/2011 1310
Client Matrix: Solid % Moisture: 3.4 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6032 g
Analysis Date:	09/13/2011 1535			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.081		0.0054	0.017

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-5**

Lab Sample ID: 580-28356-11 Date Sampled: 08/25/2011 1550
Client Matrix: Solid % Moisture: 20.5 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1378 g
Analysis Date:	09/13/2011 1955			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		350		18	180
Calcium		480	B	3.4	61
Iron		13000	B	0.67	11
Magnesium		1000		3.5	61

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	025SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1378 g
Analysis Date:	09/13/2011 1808			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7700		3.3	33
Antimony		0.36		0.046	0.22
Arsenic		9.6		0.20	0.55
Beryllium		0.094	J	0.024	0.22
Cadmium		0.18	J	0.0088	0.22
Chromium		9.7		0.12	0.22
Copper		12		0.11	0.22
Lead		9.0		0.014	0.22
Manganese		140		0.19	0.55
Nickel		5.2		0.22	0.22
Selenium		0.33	J	0.22	0.77
Silver		0.28		0.013	0.22
Thallium		ND		0.14	0.55
Zinc		19		1.2	0.77
Barium		21		0.033	0.22
Cobalt		3.3		0.021	0.22
Sodium		140		43	110
Vanadium		43		0.52	0.77

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6319 g
Analysis Date:	09/13/2011 1537			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.064		0.0063	0.020

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **G-5**

Lab Sample ID: 580-28356-11 Date Sampled: 08/25/2011 1550

Client Matrix: Solid % Moisture: 20.5 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 1**

Lab Sample ID: 580-28356-12 Date Sampled: 08/26/2011 1230
Client Matrix: Solid Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95537	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	10	Leach Batch:	580-95365	Initial Weight/Volume:	10.0625 g
Analysis Date:	09/16/2011 1156			Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		3000		32	330
Calcium		490		6.2	110
Magnesium		2200		6.4	110

Analysis Method:	6010B	Analysis Batch:	580-95537	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	100	Leach Batch:	580-95365	Initial Weight/Volume:	10.0625 g
Analysis Date:	09/16/2011 1223			Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Iron		61000	B	12	200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95520	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95447	Lab File ID:	176SMPL.D#.raw
Dilution:	100	Leach Batch:	580-95365	Initial Weight/Volume:	10.0625 g
Analysis Date:	09/16/2011 0400			Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		3.6		0.083	0.40
Beryllium		ND		0.044	0.40
Cadmium		0.065	J	0.016	0.40
Chromium		1.6		0.22	0.40
Copper		410		0.19	0.40
Lead		380	B	0.026	0.40
Manganese		110		0.34	0.99
Nickel		1.7		0.40	0.40
Selenium		1.8		0.40	1.4
Silver		28		0.024	0.40
Thallium		ND		0.26	0.99
Zinc		34		2.2	1.4
Aluminum		3300		6.0	60
Barium		93		0.060	0.40
Cobalt		4.3		0.038	0.40
Sodium		170	J	78	200
Vanadium		29		0.94	1.4

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 1**

Lab Sample ID: 580-28356-12 Date Sampled: 08/26/2011 1230
Client Matrix: Solid Date Received: 08/30/2011 1220

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95520	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95447	Lab File ID:	185SMPL.D#.raw
Dilution:	10000	Leach Batch:	580-95365	Initial Weight/Volume:	10.0625 g
Analysis Date:	09/16/2011 0439			Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		4900		36	99

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95485	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95460	Lab File ID:	091511.CSV
Dilution:	10	Leach Batch:	580-95367	Initial Weight/Volume:	5.0378 g
Analysis Date:	09/15/2011 1613			Final Weight/Volume:	50 mL
Prep Date:	09/15/2011 1425				
Leach Date:	09/12/2011 1015				

Analyte	DryWt Corrected: N	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.50		0.0063	0.020

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 2 (0-6)**

Lab Sample ID: 580-28356-13 Date Sampled: 08/26/2011 1320
Client Matrix: Solid % Moisture: 6.2 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0643 g
Analysis Date:	09/13/2011 2045			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		150	J	16	170
Calcium		200	B	3.1	55
Iron		15000	B	0.61	10
Magnesium		320		3.2	55

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	035SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0643 g
Analysis Date:	09/13/2011 1852			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8900		3.0	30
Antimony		0.94		0.042	0.20
Arsenic		110		0.18	0.50
Beryllium		0.11	J	0.022	0.20
Cadmium		0.090	J	0.0080	0.20
Chromium		3.9		0.11	0.20
Copper		1100		0.098	0.20
Lead		330		0.013	0.20
Nickel		1.3		0.20	0.20
Selenium		0.58	J	0.20	0.70
Silver		4.2		0.012	0.20
Thallium		0.14	J	0.13	0.50
Zinc		14		1.1	0.70
Barium		5.3		0.030	0.20
Cobalt		2.0		0.019	0.20
Sodium		130		39	100
Vanadium		29		0.47	0.70

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	025SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0643 g
Analysis Date:	09/14/2011 1040			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		140		0.17	0.50

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 2 (0-6)**

Lab Sample ID: 580-28356-13 Date Sampled: 08/26/2011 1320
Client Matrix: Solid % Moisture: 6.2 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6176 g
Analysis Date:	09/13/2011 1539			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.12		0.0054	0.017

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 2 (6-12)**

Lab Sample ID: 580-28356-14 Date Sampled: 08/26/2011 1324
Client Matrix: Solid % Moisture: 17.0 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0361 g
Analysis Date:	09/13/2011 2052			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		110	J	19	190
Calcium		200	B	3.6	64
Iron		8900	B	0.71	12
Magnesium		160		3.7	64

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	036SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0361 g
Analysis Date:	09/13/2011 1856			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5800		3.5	35
Antimony		0.50		0.049	0.23
Arsenic		33		0.21	0.58
Beryllium		0.076	J	0.026	0.23
Cadmium		0.17	J	0.0093	0.23
Chromium		3.4		0.13	0.23
Copper		890		0.11	0.23
Lead		140		0.015	0.23
Nickel		1.2		0.24	0.23
Selenium		0.36	J	0.23	0.81
Silver		1.7		0.014	0.23
Thallium		ND		0.15	0.58
Zinc		23		1.3	0.81
Barium		4.2		0.035	0.23
Cobalt		1.3		0.022	0.23
Sodium		170		46	120
Vanadium		24		0.55	0.81

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	026SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0361 g
Analysis Date:	09/14/2011 1045			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		59		0.20	0.58

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 2 (6-12)**

Lab Sample ID: 580-28356-14 Date Sampled: 08/26/2011 1324
Client Matrix: Solid % Moisture: 17.0 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6034 g
Analysis Date:	09/13/2011 1540			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.069		0.0063	0.020

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 3 (0-6)**

Lab Sample ID: 580-28356-15 Date Sampled: 08/26/2011 1333
Client Matrix: Solid % Moisture: 7.1 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.2000 g
Analysis Date:	09/13/2011 2059			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		71	J	14	150
Calcium		610	B	2.8	49
Iron		12000	B	0.55	9.0
Magnesium		260		2.9	49

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	037SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.2000 g
Analysis Date:	09/13/2011 1901			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		14000		2.7	27
Antimony		0.32		0.038	0.18
Arsenic		30		0.16	0.45
Beryllium		0.12	J	0.020	0.18
Cadmium		0.082	J	0.0072	0.18
Chromium		5.4		0.10	0.18
Copper		510		0.088	0.18
Lead		47		0.012	0.18
Nickel		1.2		0.18	0.18
Selenium		0.58	J	0.18	0.63
Silver		0.84		0.011	0.18
Thallium		ND		0.12	0.45
Zinc		14		1.0	0.63
Barium		3.1		0.027	0.18
Cobalt		1.7		0.017	0.18
Sodium		230		35	90
Vanadium		23		0.42	0.63

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	027SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.2000 g
Analysis Date:	09/14/2011 1049			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		44		0.15	0.45

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 3 (0-6)**

Lab Sample ID: 580-28356-15 Date Sampled: 08/26/2011 1333
Client Matrix: Solid % Moisture: 7.1 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6466 g
Analysis Date:	09/13/2011 1542			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.069		0.0052	0.017

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 3 (6-12)**

Lab Sample ID: 580-28356-16 Date Sampled: 08/26/2011 1340
Client Matrix: Solid % Moisture: 6.7 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0606 g
Analysis Date:	09/13/2011 2106			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		94	J	16	170
Calcium		790	B	3.1	56
Iron		13000	B	0.62	10
Magnesium		290		3.2	56

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	038SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0606 g
Analysis Date:	09/13/2011 1905			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		26000		3.0	30
Antimony		0.43		0.042	0.20
Arsenic		42		0.18	0.51
Beryllium		0.23		0.022	0.20
Cadmium		0.12	J	0.0081	0.20
Chromium		9.2		0.11	0.20
Copper		630		0.099	0.20
Lead		60		0.013	0.20
Nickel		2.0		0.21	0.20
Selenium		0.79		0.20	0.71
Silver		1.2		0.012	0.20
Thallium		ND		0.13	0.51
Zinc		20		1.1	0.71
Barium		6.3		0.030	0.20
Cobalt		1.5		0.019	0.20
Sodium		290		40	100
Vanadium		28		0.48	0.71

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	028SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0606 g
Analysis Date:	09/14/2011 1053			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		40		0.17	0.51

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **Potomac 3 (6-12)**

Lab Sample ID: 580-28356-16 Date Sampled: 08/26/2011 1340
Client Matrix: Solid % Moisture: 6.7 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7305 g
Analysis Date:	09/13/2011 1544			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.086		0.0046	0.015

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **IXL 1 (0-6)**

Lab Sample ID: 580-28356-17 Date Sampled: 08/26/2011 1447
Client Matrix: Solid % Moisture: 13.0 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1931 g
Analysis Date:	09/13/2011 2113			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1100		15	160
Calcium		2400	B	3.0	53
Magnesium		3600		3.1	53

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.1931 g
Analysis Date:	09/14/2011 1232			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		54000		59	960

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	039SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1931 g
Analysis Date:	09/13/2011 1910			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		27000		2.9	29
Antimony		30		0.040	0.19
Beryllium		0.60		0.021	0.19
Cadmium		3.6		0.0077	0.19
Chromium		8.1		0.11	0.19
Copper		120		0.094	0.19
Lead		99		0.013	0.19
Nickel		6.9		0.20	0.19
Selenium		1.4		0.19	0.67
Silver		0.97		0.012	0.19
Thallium		5.5		0.13	0.48
Barium		79		0.029	0.19
Cobalt		23		0.018	0.19
Sodium		200		38	96
Vanadium		77		0.46	0.67

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	032SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.1931 g
Analysis Date:	09/14/2011 1111			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **IXL 1 (0-6)**

Lab Sample ID: 580-28356-17 Date Sampled: 08/26/2011 1447
Client Matrix: Solid % Moisture: 13.0 Date Received: 08/30/2011 1220

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		4900		17	48
Manganese		5600		16	48
Zinc		460		110	67

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	5.0			Initial Weight/Volume:	0.7191 g
Analysis Date:	09/13/2011 1706			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.74		0.025	0.080

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **IXL 1 (6-12)**

Lab Sample ID: 580-28356-18 Date Sampled: 08/26/2011 1455
Client Matrix: Solid % Moisture: 13.6 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0245 g
Analysis Date:	09/13/2011 2119			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1700		18	190
Calcium		2200	B	3.5	62
Magnesium		4300		3.6	62

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.0245 g
Analysis Date:	09/14/2011 1239			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		48000		69	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	040SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0245 g
Analysis Date:	09/13/2011 1914			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		24000		3.4	34
Antimony		17		0.047	0.23
Beryllium		0.54		0.025	0.23
Cadmium		4.2		0.0090	0.23
Chromium		7.5		0.13	0.23
Copper		130		0.11	0.23
Lead		68		0.015	0.23
Nickel		8.0		0.23	0.23
Selenium		1.3		0.23	0.79
Silver		1.2		0.014	0.23
Thallium		7.3		0.15	0.56
Barium		130		0.034	0.23
Cobalt		23		0.021	0.23
Sodium		200		44	110
Vanadium		84		0.53	0.79

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	033SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.0245 g
Analysis Date:	09/14/2011 1115			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **IXL 1 (6-12)**

Lab Sample ID: 580-28356-18 Date Sampled: 08/26/2011 1455
Client Matrix: Solid % Moisture: 13.6 Date Received: 08/30/2011 1220

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2800		20	56
Manganese		16000		19	56
Zinc		540		130	79

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7447 g
Analysis Date:	09/13/2011 1547			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.39		0.0049	0.016

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **IXL 2 (0-6)**

Lab Sample ID: 580-28356-19 Date Sampled: 08/26/2011 1458
Client Matrix: Solid % Moisture: 3.2 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0610 g
Analysis Date:	09/13/2011 2142			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1800		16	160
Calcium		620	B	3.0	54
Magnesium		1400		3.1	54

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.0610 g
Analysis Date:	09/14/2011 1246			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		51000		59	970

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	041SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0610 g
Analysis Date:	09/13/2011 1918			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7500		2.9	29
Antimony		58		0.041	0.19
Beryllium		0.21		0.021	0.19
Cadmium		1.9		0.0078	0.19
Chromium		4.8		0.11	0.19
Copper		150		0.095	0.19
Lead		170		0.013	0.19
Nickel		3.0		0.20	0.19
Selenium		1.0		0.20	0.68
Silver		2.3		0.012	0.19
Thallium		4.0		0.13	0.49
Zinc		220		1.1	0.68
Barium		51		0.029	0.19
Cobalt		21		0.018	0.19
Sodium		100		38	97
Vanadium		54		0.46	0.68

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **IXL 2 (0-6)**

Lab Sample ID: 580-28356-19 Date Sampled: 08/26/2011 1458
Client Matrix: Solid % Moisture: 3.2 Date Received: 08/30/2011 1220

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	034SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.0610 g
Analysis Date:	09/14/2011 1120			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		5400		18	49
Manganese		4600		17	49

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	5.0			Initial Weight/Volume:	0.6097 g
Analysis Date:	09/13/2011 1708			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.92		0.027	0.085

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **IXL 2 (6-12)**

Lab Sample ID: 580-28356-20 Date Sampled: 08/26/2011 1502
Client Matrix: Solid % Moisture: 3.4 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1826 g
Analysis Date:	09/13/2011 2149			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1500		14	140
Calcium		560	B	2.7	48
Magnesium		1500		2.8	48

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.1826 g
Analysis Date:	09/14/2011 1253			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		51000		53	870

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	042SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1826 g
Analysis Date:	09/13/2011 1922			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8800		2.6	26
Antimony		58		0.037	0.17
Beryllium		0.20		0.019	0.17
Cadmium		2.1		0.0070	0.17
Chromium		4.5		0.099	0.17
Copper		170		0.086	0.17
Lead		170		0.011	0.17
Nickel		3.5		0.18	0.17
Selenium		1.1		0.18	0.61
Silver		2.7		0.010	0.17
Thallium		5.0		0.11	0.44
Zinc		230		0.98	0.61
Barium		51		0.026	0.17
Cobalt		24		0.017	0.17
Sodium		100		34	87
Vanadium		57		0.41	0.61

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **IXL 2 (6-12)**

Lab Sample ID: 580-28356-20 Date Sampled: 08/26/2011 1502
Client Matrix: Solid % Moisture: 3.4 Date Received: 08/30/2011 1220

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	037SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.1826 g
Analysis Date:	09/14/2011 1133			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		7800		16	44
Manganese		6200		15	44

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	5.0			Initial Weight/Volume:	0.6111 g
Analysis Date:	09/13/2011 1710			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.82		0.027	0.085

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-8**

Lab Sample ID: 580-28356-21 Date Sampled: 08/23/2011 1500
Client Matrix: Solid % Moisture: 3.8 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0381 g
Analysis Date:	09/13/2011 2156			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1200		16	170
Calcium		1500	B	3.1	55
Magnesium		17000		3.2	55

Analysis Method:	6010B	Analysis Batch:	580-95389	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95118-95113Fe.a
Dilution:	100			Initial Weight/Volume:	1.0381 g
Analysis Date:	09/14/2011 1300			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		37000		61	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	043SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0381 g
Analysis Date:	09/13/2011 1927			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		17000		3.0	30
Antimony		0.46		0.042	0.20
Arsenic		120		0.18	0.50
Beryllium		0.34		0.022	0.20
Cadmium		0.21		0.0080	0.20
Chromium		63		0.11	0.20
Copper		92		0.098	0.20
Lead		14		0.013	0.20
Nickel		130		0.20	0.20
Selenium		0.77		0.20	0.70
Silver		0.13	J	0.012	0.20
Thallium		0.29	J	0.13	0.50
Zinc		62		1.1	0.70
Barium		54		0.030	0.20
Cobalt		15		0.019	0.20
Sodium		330		39	100
Vanadium		61		0.47	0.70

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-8**

Lab Sample ID: 580-28356-21 Date Sampled: 08/23/2011 1500
Client Matrix: Solid % Moisture: 3.8 Date Received: 08/30/2011 1220

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	029SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0381 g
Analysis Date:	09/14/2011 1058			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		420		0.17	0.50

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7784 g
Analysis Date:	09/13/2011 1557			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.084		0.0042	0.013

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-16**

Lab Sample ID: 580-28356-22 Date Sampled: 08/23/2011 1525
Client Matrix: Solid % Moisture: 21.9 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.1293 g
Analysis Date:	09/13/2011 2203			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		200		18	190
Calcium		250	B	3.5	62
Iron		26000	B	0.69	11
Magnesium		1000		3.6	62

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	044SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1293 g
Analysis Date:	09/13/2011 1931			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		31000		3.4	34
Antimony		0.29		0.048	0.23
Arsenic		9.9		0.20	0.57
Beryllium		0.23		0.025	0.23
Cadmium		0.22	J	0.0091	0.23
Chromium		34		0.13	0.23
Copper		36		0.11	0.23
Lead		10		0.015	0.23
Nickel		17		0.23	0.23
Selenium		0.91		0.23	0.79
Silver		0.38		0.014	0.23
Thallium		ND		0.15	0.57
Zinc		23		1.3	0.79
Barium		20		0.034	0.23
Cobalt		3.4		0.022	0.23
Sodium		140		44	110
Vanadium		61		0.54	0.79

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	030SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1293 g
Analysis Date:	09/14/2011 1102			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		63		0.19	0.57

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-16**

Lab Sample ID: 580-28356-22 Date Sampled: 08/23/2011 1525
Client Matrix: Solid % Moisture: 21.9 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6814 g
Analysis Date:	09/13/2011 1559			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.27		0.0059	0.019

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-11**

Lab Sample ID: 580-28356-23 Date Sampled: 08/24/2011 1125
Client Matrix: Solid % Moisture: 12.8 Date Received: 08/30/2011 1220

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-95314	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-2
Dilution:	1.0			Initial Weight/Volume:	1.0109 g
Analysis Date:	09/13/2011 2209			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		130	J	18	190
Calcium		360	B	3.5	62
Iron		7200	B	0.69	11
Magnesium		200		3.6	62

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-95318	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	047SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0109 g
Analysis Date:	09/13/2011 1944			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		2000		3.4	34
Antimony		0.20	J	0.048	0.23
Arsenic		3.2		0.20	0.57
Beryllium		ND		0.025	0.23
Cadmium		0.054	J	0.0091	0.23
Chromium		4.5		0.13	0.23
Copper		3.3		0.11	0.23
Lead		5.5		0.015	0.23
Nickel		1.8		0.23	0.23
Selenium		ND		0.23	0.79
Silver		0.13	J	0.014	0.23
Thallium		ND		0.15	0.57
Zinc		12		1.3	0.79
Barium		3.4		0.034	0.23
Cobalt		1.5		0.022	0.23
Sodium		150		44	110
Vanadium		33		0.54	0.79

Analysis Method:	6020	Analysis Batch:	580-95377	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-95118	Lab File ID:	031SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0109 g
Analysis Date:	09/14/2011 1106			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		36		0.19	0.57

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Client Sample ID: **W-11**

Lab Sample ID: 580-28356-23 Date Sampled: 08/24/2011 1125
Client Matrix: Solid % Moisture: 12.8 Date Received: 08/30/2011 1220

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6155 g
Analysis Date:	09/13/2011 1600			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.051		0.0059	0.019

General Chemistry

Client Sample ID: **W-12**

Lab Sample ID: 580-28356-1 Date Sampled: 08/24/2011 1237
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.84		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	73		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	27		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-10**

Lab Sample ID: 580-28356-2 Date Sampled: 08/24/2011 1245
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.70		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	74		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	26		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-9**

Lab Sample ID: 580-28356-3 Date Sampled: 08/24/2011 1343
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.23		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	89		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	11		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-13**

Lab Sample ID: 580-28356-4 Date Sampled: 08/24/2011 1350
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.63		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	80		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	20		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-15**

Lab Sample ID: 580-28356-5 Date Sampled: 08/24/2011 1430
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.64		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-14**

Lab Sample ID: 580-28356-6 Date Sampled: 08/24/2011 1430
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.31		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	95		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	5.5		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **G-1**

Lab Sample ID: 580-28356-7 Date Sampled: 08/25/2011 1030
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.53		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	93		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	7.4		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **G-2**

Lab Sample ID: 580-28356-8 Date Sampled: 08/25/2011 1055
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.03		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	81		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **G-3**

Lab Sample ID: 580-28356-9 Date Sampled: 08/25/2011 1135
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.23		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	9.8		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **G-4**

Lab Sample ID: 580-28356-10 Date Sampled: 08/25/2011 1310
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.67		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	3.4		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **G-5**

Lab Sample ID: 580-28356-11 Date Sampled: 08/25/2011 1550
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.89		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	80		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	20		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **Potomac 2 (0-6)**

Lab Sample ID: 580-28356-13 Date Sampled: 08/26/2011 1320
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.86		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	94		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	6.2		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **Potomac 2 (6-12)**

Lab Sample ID: 580-28356-14 Date Sampled: 08/26/2011 1324
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.02		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	83		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **Potomac 3 (0-6)**

Lab Sample ID: 580-28356-15 Date Sampled: 08/26/2011 1333
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.08		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	93		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	7.1		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **Potomac 3 (6-12)**

Lab Sample ID: 580-28356-16 Date Sampled: 08/26/2011 1340
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.98		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	93		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	6.7		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **IXL 1 (0-6)**

Lab Sample ID: 580-28356-17 Date Sampled: 08/26/2011 1447

Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.61		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **IXL 1 (6-12)**

Lab Sample ID: 580-28356-18 Date Sampled: 08/26/2011 1455

Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	5.76		SU	1.0	9045C
Analysis Batch: 580-95104	Analysis Date: 09/11/2011 1523				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **IXL 2 (0-6)**

Lab Sample ID: 580-28356-19 Date Sampled: 08/26/2011 1458

Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.85		SU	1.0	9045C
Analysis Batch: 580-95107	Analysis Date: 09/11/2011 1533				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	3.2		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **IXL 2 (6-12)**

Lab Sample ID: 580-28356-20 Date Sampled: 08/26/2011 1502

Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.71		SU	1.0	9045C
Analysis Batch: 580-95107	Analysis Date: 09/11/2011 1533				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	3.4		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-8**

Lab Sample ID: 580-28356-21 Date Sampled: 08/23/2011 1500
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.47		SU	1.0	9045C
Analysis Batch: 580-95107	Analysis Date: 09/11/2011 1533				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	96		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N
Percent Moisture	3.8		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1711						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-16**

Lab Sample ID: 580-28356-22 Date Sampled: 08/23/2011 1525
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.95		SU	1.0	9045C
Analysis Batch: 580-95107	Analysis Date: 09/11/2011 1533				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	78		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1716						DryWt Corrected: N
Percent Moisture	22		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1716						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-11**

Lab Sample ID: 580-28356-23 Date Sampled: 08/24/2011 1125
Client Matrix: Solid Date Received: 08/30/2011 1220

Analyte	Result	Qual	Units	Dil	Method
pH	4.23		SU	1.0	9045C
Analysis Batch: 580-95107	Analysis Date: 09/11/2011 1533				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1716						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95116	Analysis Date: 09/11/2011 1716						DryWt Corrected: N

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95113 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-95113/21-A	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1535	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Potassium	ND		16	170
Calcium	ND		3.1	55
Iron	ND		0.61	10
Magnesium	ND		3.2	55

Method Blank - Batch: 580-95113 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-95113/21-A	Analysis Batch:	580-95389	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95118-95113Fe.as
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/14/2011 1128	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Calcium	ND		3.1	55
Iron	ND		0.61	10
Magnesium	ND		3.2	55

LCS-Certified Reference Material - Batch: 580-95113 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5024 g
Analysis Date:	09/13/2011 1555	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	2770	2560	92	65.0 - 135.0	
Calcium	6700	6790	101	75.4 - 124.0	
Iron	13100	13600	104	41.6 - 159.1	
Magnesium	2980	2810	94	70.0 - 130.0	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95113

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95113/22-A	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1542	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95113/23-A	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1549	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Potassium	96	97	80 - 120	2	20		
Calcium	96	98	80 - 120	1	20		
Iron	97	99	80 - 120	2	20		
Magnesium	95	95	80 - 120	0	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95113

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95113/22-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-95113/23-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/13/2011 1542			Analysis Date:	09/13/2011 1549
Prep Date:	09/12/2011 0845			Prep Date:	09/12/2011 0845
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Potassium	1000	1000	956	975
Calcium	1000	1000	965	979
Iron	1100	1100	1070	1090
Magnesium	1000	1000	955	952

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Post Digestion Spike - Batch: 580-95113

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1006 g
Analysis Date:	09/13/2011 1635	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	290	1250	1370	86		
Calcium	810	1250	1860	83		
Iron	29000	1370	28700	NC	75 - 125	
Magnesium	3900	1250	4810	76	75 - 125	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95113

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28356-1	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0513 g
Analysis Date:	09/13/2011 1622			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28356-1	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0143 g
Analysis Date:	09/13/2011 1629			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Potassium	105	102	80 - 120	0	20		
Calcium	120	115	80 - 120	0	20		
Iron	202	179	80 - 120	1	20	4	4
Magnesium	116	117	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95113

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28356-1	Units: mg/Kg	MSD Lab Sample ID:	580-28356-1	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	09/13/2011 1622		Analysis Date:	09/13/2011 1629	
Prep Date:	09/12/2011 0845		Prep Date:	09/12/2011 0845	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Potassium	290	1310	1350	1670		1670	
Calcium	810	1310	1350	2380		2380	
Iron	29000	1440	1490	31600	4	31400	4
Magnesium	3900	1310	1350	5390		5450	

Serial Dilution - Batch: 580-95113

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1006 g
Analysis Date:	09/13/2011 1602	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Potassium	290	375	NC		J
Calcium	810	838	2.9		
Iron	29000	29400	2.4	10	
Magnesium	3900	4030	4.0	10	

Duplicate - Batch: 580-95113

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0219 g
Analysis Date:	09/13/2011 1615	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Potassium	290	332	13	20	
Calcium	810	912	11	20	
Iron	29000	29300	2	20	
Magnesium	3900	4460	14	20	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95118 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-95118/16-A	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1922	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Potassium	ND		16	170
Calcium	12.2	J	3.1	55
Iron	2.41	J	0.61	10
Magnesium	ND		3.2	55

Method Blank - Batch: 580-95118 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-95118/16-A	Analysis Batch:	580-95389	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95118-95113Fe.as
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/14/2011 1225	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Calcium	ND		3.1	55
Iron	ND		0.61	10
Magnesium	ND		3.2	55

LCS-Certified Reference Material - Batch: 580-95118 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5025 g
Analysis Date:	09/13/2011 1942	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	2770	2740	99	65.0 - 135.0	
Calcium	6700	6920	103	75.4 - 124.0	
Iron	13100	13900	106	41.6 - 159.1	
Magnesium	2980	2850	95	70.0 - 130.0	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95118

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95118/17-A	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1929	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95118/18-A	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1935	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Potassium	99	100	80 - 120	1	20		
Calcium	99	100	80 - 120	1	20		
Iron	100	98	80 - 120	2	20		
Magnesium	97	95	80 - 120	2	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95118

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95118/17-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-95118/18-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/13/2011 1929			Analysis Date:	09/13/2011 1935
Prep Date:	09/12/2011 0900			Prep Date:	09/12/2011 0900
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Potassium	1000	1000	991	1000
Calcium	1000	1000	992	1000
Iron	1100	1100	1100	1080
Magnesium	1000	1000	971	954

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Post Digestion Spike - Batch: 580-95118

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28356-11	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1378 g
Analysis Date:	09/13/2011 2023	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	350	1110	1300	86		
Calcium	480	1110	1400	84		
Iron	13000	1220	13300	NC	75 - 125	
Magnesium	1000	1110	1950	81	75 - 125	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95118

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28356-11	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0764 g
Analysis Date:	09/13/2011 2009			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28356-11	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1495 g
Analysis Date:	09/13/2011 2016			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Potassium	103	102	80 - 120	6	20		
Calcium	110	113	80 - 120	3	20		
Iron	128	157	80 - 120	2	20	4	4
Magnesium	78	79	80 - 120	3	20	F	F

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95118

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28356-11	Units: mg/Kg	MSD Lab Sample ID:	580-28356-11	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	1.0		Dilution:	1.0	
Analysis Date:	09/13/2011 2009		Analysis Date:	09/13/2011 2016	
Prep Date:	09/12/2011 0900		Prep Date:	09/12/2011 0900	
Leach Date:	N/A		Leach Date:	N/A	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Potassium	350	1170	1090	1550		1460	
Calcium	480	1170	1090	1760		1720	
Iron	13000	1290	1200	14400	4	14700	4
Magnesium	1000	1170	1090	1960	F	1910	F

Serial Dilution - Batch: 580-95118

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28356-11	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1378 g
Analysis Date:	09/13/2011 1949	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Potassium	350	438	NC		J
Calcium	480	505	6.0		
Iron	13000	12800	0.15	10	
Magnesium	1000	1100	4.4	10	

Duplicate - Batch: 580-95118

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28356-11	Analysis Batch:	580-95314	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	580-95113-118-094-24
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1270 g
Analysis Date:	09/13/2011 2002	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Potassium	350	360	3	20	
Calcium	480	501	5	20	
Iron	13000	13500	5	20	
Magnesium	1000	861	20	20	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95447

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 580-95447/18-A	Analysis Batch:	580-95537	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 g
Analysis Date:	09/16/2011 1122	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1313				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Potassium	ND		16	170
Calcium	ND		3.1	55
Iron	3.58	J	0.61	10
Magnesium	ND		3.2	55

LCS-Certified Reference Material - Batch: 580-95447

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-95537	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0096 g
Analysis Date:	09/16/2011 1142	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1326				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	2770	1950	70	65.0 - 135.0	
Calcium	6700	6740	101	75.4 - 124.0	
Iron	13100	9130	70	41.6 - 159.1	
Magnesium	2980	2360	79	70.0 - 130.0	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95447

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95447/19-A	Analysis Batch:	580-95537	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 g
Analysis Date:	09/16/2011 1129	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1326				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95447/20-A	Analysis Batch:	580-95537	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	2.0 g
Analysis Date:	09/16/2011 1136	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1326				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Potassium	96	100	80 - 120	4	20		
Calcium	99	102	80 - 120	3	20		
Iron	103	103	80 - 120	0	20		
Magnesium	98	98	80 - 120	1	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95447

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95447/19-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-95447/20-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/16/2011 1129			Analysis Date:	09/16/2011 1136
Prep Date:	09/15/2011 1326			Prep Date:	09/15/2011 1326
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Potassium	1000	1000	958	995
Calcium	1000	1000	987	1020
Iron	1100	1100	1130	1130
Magnesium	1000	1000	976	984

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Post Digestion Spike - Batch: 580-95447

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28356-12	Analysis Batch:	580-95537	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	10	Leach Batch:	580-95365	Initial Weight/Volume:	10.0625 g
Analysis Date:	09/16/2011 1216	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	3000	1990	4660	82		
Calcium	490	1990	2470	100		
Iron	72000	2190	64400	NC	75 - 125	
Magnesium	2200	1990	3760	81	75 - 125	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95447

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28356-12	Analysis Batch:	580-95537	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	10	Leach Batch:	580-95365	Initial Weight/Volume:	9.9949 g
Analysis Date:	09/16/2011 1203			Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

MSD Lab Sample ID:	580-28356-12	Analysis Batch:	580-95537	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	10	Leach Batch:	580-95365	Initial Weight/Volume:	10.0803 g
Analysis Date:	09/16/2011 1209			Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Potassium	105	357	80 - 120	14	20	4	4
Calcium	139	156	80 - 120	4	20	F	F
Iron	-788	3269	80 - 120	12	20	4	4
Magnesium	54	208	80 - 120	13	20	4	4

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95447

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28356-12	Units: mg/Kg	MSD Lab Sample ID:	580-28356-12	
Client Matrix:	Solid		Client Matrix:	Solid	
Dilution:	10		Dilution:	10	
Analysis Date:	09/16/2011 1203		Analysis Date:	09/16/2011 1209	
Prep Date:	09/15/2011 1311		Prep Date:	09/15/2011 1311	
Leach Date:	09/12/2011 1115		Leach Date:	09/12/2011 1115	

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Potassium	3000	200	198	3240	4	3740	4
Calcium	490	200	198	765	F	796	F
Iron	72000	220	218	70400	4	79200	4
Magnesium	2200	200	198	2270	4	2570	4

Serial Dilution - Batch: 580-95447

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28356-12	Analysis Batch:	580-95537	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	580-95447T4.asc
Dilution:	50	Leach Batch:	580-95365	Initial Weight/Volume:	10.0625 g
Analysis Date:	09/16/2011 1149	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Potassium	ND		2420	11		
Calcium	ND		341	NC		J
Iron	58000		61300	6.5	10	
Magnesium	2000	J	2060	2.8	10	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95113

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 580-95113/21-A	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	050SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1957	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Antimony	ND		0.042	0.20
Arsenic	ND		0.18	0.50
Beryllium	ND		0.022	0.20
Cadmium	ND		0.0080	0.20
Chromium	ND		0.11	0.20
Copper	ND		0.098	0.20
Lead	ND		0.013	0.20
Manganese	ND		0.17	0.50
Nickel	ND		0.20	0.20
Selenium	ND		0.20	0.70
Silver	ND		0.012	0.20
Thallium	ND		0.13	0.50
Aluminum	ND		3.0	30
Zinc	ND		1.1	0.70
Barium	0.0400	J	0.030	0.20
Cobalt	ND		0.019	0.20
Sodium	ND		39	100
Vanadium	ND		0.47	0.70

Client: Hart Crowser, Inc. Job Number: 580-28356-1

LCS-Certified Reference Material - Batch: 580-95113

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	059SMPL.D#.raw
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.5024 g
Analysis Date:	09/13/2011 2037	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	121	224	185	21.0 - 251.6	
Arsenic	109	115	105	71.1 - 128.9	
Beryllium	92.1	91.0	99	75.3 - 124.7	
Cadmium	110	116	105	73.2 - 126.8	
Chromium	93.4	96.7	104	69.9 - 129.8	
Copper	84.7	76.0	90	73.2 - 126.8	
Lead	152	167	110	75.3 - 125.1	
Manganese	443	483	109	75.8 - 124.5	
Nickel	109	117	107	73.8 - 126.7	
Selenium	207	221	107	67.1 - 132.7	
Silver	51.9	52.8	102	65.6 - 134.4	
Thallium	171	178	104	68.8 - 131.2	
Aluminum	9780	8050	82	46.0 - 153.8	
Zinc	299	309	103	72.2 - 127.8	
Barium	325	334	103	74.7 - 125.5	
Cobalt	133	144	108	74.5 - 126.1	
Sodium	724	786	109	52.0 - 148.0	
Vanadium	110	114	104	64.5 - 135.3	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95113

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95113/22-A	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	057SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 2028	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95113/23-A	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	058SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 2032	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	96	95	80 - 120	1	20		
Arsenic	100	100	80 - 120	0	20		
Beryllium	96	97	80 - 120	1	20		
Cadmium	101	101	80 - 120	0	20		
Chromium	100	101	80 - 120	2	20		
Copper	101	103	80 - 120	2	20		
Lead	99	100	80 - 120	1	20		
Manganese	102	102	80 - 120	1	20		
Nickel	100	101	80 - 120	1	20		
Selenium	98	99	80 - 120	1	20		
Silver	100	101	80 - 120	1	20		
Thallium	97	98	80 - 120	1	20		
Aluminum	104	104	80 - 120	0	20		
Zinc	108	102	80 - 120	5	20		
Barium	98	98	80 - 120	0	20		
Cobalt	97	98	80 - 120	2	20		
Sodium	106	106	80 - 120	1	20		
Vanadium	99	99	80 - 120	0	20		

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95113

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95113/22-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-95113/23-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	09/13/2011 2028			Analysis Date:	09/13/2011 2032
Prep Date:	09/12/2011 0845			Prep Date:	09/12/2011 0845
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Antimony	150	150	144	143
Arsenic	200	200	200	201
Beryllium	5.00	5.00	4.79	4.87
Cadmium	5.00	5.00	5.06	5.05
Chromium	20.0	20.0	20.0	20.3
Copper	25.0	25.0	25.4	25.9
Lead	50.0	50.0	49.5	49.8
Manganese	50.0	50.0	51.1	50.8
Nickel	50.0	50.0	49.8	50.5
Selenium	200	200	196	198
Silver	30.0	30.0	30.0	30.3
Thallium	200	200	194	196
Aluminum	200	200	208	208
Zinc	50.0	50.0	53.9	51.1
Barium	200	200	197	197
Cobalt	50.0	50.0	48.5	49.2
Sodium	1000	1000	1060	1060
Vanadium	50.0	50.0	49.3	49.4

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Post Digestion Spike - Batch: 580-95113

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	05
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1006 g
Analysis Date:	09/13/2011 2024	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Antimony	0.27		187	111	59	75 - 125	W
Arsenic	12		250	318	123	75 - 125	
Beryllium	0.26		6.24	7.97	124	75 - 125	
Cadmium	0.22	J	6.24	7.94	124	75 - 125	
Chromium	29		25.0	69.6	161	75 - 125	W
Copper	36		31.2	83.5	153	75 - 125	W
Lead	9.1		62.4	89.9	129	75 - 125	W
Manganese	190		62.4	298	177	75 - 125	W
Nickel	21		62.4	106	136	75 - 125	W
Selenium	0.72	J	250	303	121	75 - 125	
Silver	0.21	J	37.5	45.7	121	75 - 125	
Thallium	ND		250	323	129	75 - 125	W
Aluminum	28000		250	34100	NC	75 - 125	
Zinc	39		62.4	125	138	75 - 125	W
Barium	38		250	353	126	75 - 125	W
Cobalt	7.0		62.4	84.4	124	75 - 125	
Sodium	87	J	1250	1650	125	75 - 125	
Vanadium	74		62.4	169	152	75 - 125	W

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95113

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28356-1	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	054SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0513 g
Analysis Date:	09/13/2011 2015			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28356-1	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	055SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0143 g
Analysis Date:	09/13/2011 2019			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	61	53	80 - 120	9	20	F	F
Arsenic	127	112	80 - 120	9	20	F	
Beryllium	126	113	80 - 120	7	20	F	
Cadmium	127	112	80 - 120	9	20	F	
Chromium	176	128	80 - 120	16	20	F	F
Copper	167	137	80 - 120	10	20	F	F
Lead	133	117	80 - 120	9	20	F	
Manganese	202	167	80 - 120	6	20	F	F
Nickel	143	122	80 - 120	10	20	F	F
Selenium	125	112	80 - 120	8	20	F	
Silver	124	110	80 - 120	8	20	F	
Thallium	132	117	80 - 120	9	20	F	
Aluminum	3262	1395	80 - 120	14	20	4	4
Zinc	149	130	80 - 120	7	20	F	F
Barium	131	113	80 - 120	10	20	F	
Cobalt	129	113	80 - 120	9	20	F	
Sodium	130	113	80 - 120	10	20	F	
Vanadium	165	125	80 - 120	13	20	F	F

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95113

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28356-1	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	09/13/2011 2015		
Prep Date:	09/12/2011 0845		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28356-1
Client Matrix:	Solid
Dilution:	50
Analysis Date:	09/13/2011 2019
Prep Date:	09/12/2011 0845
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Antimony	0.27		196	203	119	F	109	F
Arsenic	12		261	271	343	F	314	
Beryllium	0.26		6.54	6.77	8.48	F	7.92	
Cadmium	0.22	J	6.54	6.77	8.50	F	7.80	
Chromium	29		26.1	27.1	75.6	F	64.3	F
Copper	36		32.7	33.9	90.1	F	81.9	F
Lead	9.1		65.4	67.7	96.0	F	88.1	
Manganese	190		65.4	67.7	319	F	300	F
Nickel	21		65.4	67.7	114	F	104	F
Selenium	0.72	J	261	271	327	F	303	
Silver	0.21	J	39.2	40.6	48.7	F	44.9	
Thallium	ND		261	271	345	F	316	
Aluminum	28000		261	271	37000	4	32200	4
Zinc	39		65.4	67.7	136	F	127	F
Barium	38		261	271	381	F	344	
Cobalt	7.0		65.4	67.7	91.1	F	83.6	
Sodium	87	J	1310	1350	1780	F	1610	
Vanadium	74		65.4	67.7	181	F	159	F

Serial Dilution - Batch: 580-95113

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	051
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1006 g
Analysis Date:	09/13/2011 2002	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Antimony	0.27		0.310	NC	10	J
Arsenic	12		11.7	1.4	10	
Beryllium	0.26		0.262	NC	10	J
Cadmium	0.22	J	0.258	NC	10	J
Chromium	29		29.6	0.59	10	
Copper	36		36.7	3.3	10	
Lead	9.1		9.27	2.3	10	
Manganese	190		189	0.67	10	
Nickel	21		21.9	3.3	10	
Selenium	0.72	J	ND	NC	10	
Silver	0.21	J	0.201	NC	10	J
Thallium	ND		ND	NC	10	
Aluminum	28000		27000	5.0	10	
Zinc	39		39.0	NC	10	
Barium	38		37.3	1.1	10	
Cobalt	7.0		7.04	0.71	10	
Sodium	87	J	ND	NC	10	
Vanadium	74		73.7	0.25	10	

Duplicate - Batch: 580-95113

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	053SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0219 g
Analysis Date:	09/13/2011 2010	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Antimony	0.27		0.301	12	20	
Arsenic	12		14.1	18	20	
Beryllium	0.26		0.334	25	20	
Cadmium	0.22	J	0.279	23	20	
Chromium	29		35.4	18	20	
Copper	36		42.4	17	20	
Lead	9.1		10.7	17	20	
Manganese	190		221	16	20	
Nickel	21		25.2	18	20	
Selenium	0.72	J	0.908	24	20	J
Silver	0.21	J	0.257	21	20	J

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Duplicate - Batch: 580-95113

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95113	Lab File ID:	053SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0219 g
Analysis Date:	09/13/2011 2010	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0845				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Thallium	ND		ND	NC	20	
Aluminum	28000		33400	16	20	
Zinc	39		46.6	18	20	
Barium	38		44.5	16	20	
Cobalt	7.0		8.28	17	20	
Sodium	87	J	101	15	20	J
Vanadium	74		90.1	20	20	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95118

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 580-95118/16-A	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	023SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1800	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Antimony	ND		0.042	0.20
Arsenic	ND		0.18	0.50
Beryllium	ND		0.022	0.20
Cadmium	ND		0.0080	0.20
Chromium	ND		0.11	0.20
Copper	ND		0.098	0.20
Lead	ND		0.013	0.20
Manganese	ND		0.17	0.50
Nickel	ND		0.20	0.20
Selenium	ND		0.20	0.70
Silver	ND		0.012	0.20
Thallium	ND		0.13	0.50
Aluminum	ND		3.0	30
Zinc	ND		1.1	0.70
Barium	ND		0.030	0.20
Cobalt	ND		0.019	0.20
Sodium	ND		39	100
Vanadium	ND		0.47	0.70

Client: Hart Crowser, Inc. Job Number: 580-28356-1

LCS-Certified Reference Material - Batch: 580-95118

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	032SMPL.D#.raw
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.5025 g
Analysis Date:	09/13/2011 1839	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	121	227	188	21.0 - 251.6	
Arsenic	109	114	105	71.1 - 128.9	
Beryllium	92.1	94.7	103	75.3 - 124.7	
Cadmium	110	117	106	73.2 - 126.8	
Chromium	93.4	97.0	104	69.9 - 129.8	
Copper	84.7	75.5	89	73.2 - 126.8	
Lead	152	171	113	75.3 - 125.1	
Manganese	443	482	109	75.8 - 124.5	
Nickel	109	115	105	73.8 - 126.7	
Selenium	207	222	107	67.1 - 132.7	
Silver	51.9	53.3	103	65.6 - 134.4	
Thallium	171	185	108	68.8 - 131.2	
Aluminum	9780	8550	87	46.0 - 153.8	
Zinc	299	308	103	72.2 - 127.8	
Barium	325	340	104	74.7 - 125.5	
Cobalt	133	141	106	74.5 - 126.1	
Sodium	724	859	119	52.0 - 148.0	
Vanadium	110	115	105	64.5 - 135.3	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95118

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95118/17-A	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	030SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1830	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95118/18-A	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	031SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/13/2011 1835	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	97	97	80 - 120	0	20		
Arsenic	101	101	80 - 120	0	20		
Beryllium	105	100	80 - 120	5	20		
Cadmium	93	104	80 - 120	11	20		
Chromium	102	101	80 - 120	1	20		
Copper	101	102	80 - 120	1	20		
Lead	99	100	80 - 120	1	20		
Manganese	103	102	80 - 120	1	20		
Nickel	99	99	80 - 120	0	20		
Selenium	98	100	80 - 120	1	20		
Silver	102	102	80 - 120	0	20		
Thallium	97	100	80 - 120	2	20		
Aluminum	108	108	80 - 120	0	20		
Zinc	106	104	80 - 120	2	20		
Barium	100	98	80 - 120	1	20		
Cobalt	97	97	80 - 120	0	20		
Sodium	115	115	80 - 120	0	20		
Vanadium	100	100	80 - 120	0	20		

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95118

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95118/17-A	Units: mg/Kg		LCSD Lab Sample ID:	LCSD 580-95118/18-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	09/13/2011 1830			Analysis Date:	09/13/2011 1835
Prep Date:	09/12/2011 0900			Prep Date:	09/12/2011 0900
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Antimony	150	150	146	146
Arsenic	200	200	201	202
Beryllium	5.00	5.00	5.23	5.00
Cadmium	5.00	5.00	4.65	5.18
Chromium	20.0	20.0	20.4	20.1
Copper	25.0	25.0	25.4	25.6
Lead	50.0	50.0	49.6	50.0
Manganese	50.0	50.0	51.3	51.0
Nickel	50.0	50.0	49.5	49.7
Selenium	200	200	197	200
Silver	30.0	30.0	30.6	30.5
Thallium	200	200	195	200
Aluminum	200	200	216	216
Zinc	50.0	50.0	52.8	51.9
Barium	200	200	200	197
Cobalt	50.0	50.0	48.5	48.7
Sodium	1000	1000	1150	1150
Vanadium	50.0	50.0	49.8	49.8

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Post Digestion Spike - Batch: 580-95118

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-11	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	0
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1378 g
Analysis Date:	09/13/2011 1826	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Antimony	0.36		166	122	73	75 - 125	W
Arsenic	9.6		221	251	109	75 - 125	
Beryllium	0.094	J	5.53	6.14	109	75 - 125	
Cadmium	0.18	J	5.53	6.27	110	75 - 125	
Chromium	9.7		22.1	33.5	108	75 - 125	
Copper	12		27.6	44.0	116	75 - 125	
Lead	9.0		55.3	70.5	111	75 - 125	
Manganese	140		55.3	149	18	75 - 125	W
Nickel	5.2		55.3	66.0	110	75 - 125	
Selenium	0.33	J	221	239	108	75 - 125	
Silver	0.28		33.2	36.1	108	75 - 125	
Thallium	ND		221	249	113	75 - 125	
Aluminum	7700		221	8610	NC	75 - 125	
Zinc	19		55.3	79.8	110	75 - 125	
Barium	21		221	262	109	75 - 125	
Cobalt	3.3		55.3	62.6	107	75 - 125	
Sodium	140		1110	1520	125	75 - 125	
Vanadium	43		55.3	101	106	75 - 125	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95118

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28356-11	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	027SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0764 g
Analysis Date:	09/13/2011 1817			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28356-11	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	028SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1495 g
Analysis Date:	09/13/2011 1821			Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	76	86	80 - 120	6	20	F	
Arsenic	112	127	80 - 120	6	20		F
Beryllium	111	128	80 - 120	8	20		F
Cadmium	113	127	80 - 120	5	20		F
Chromium	114	130	80 - 120	5	20		F
Copper	122	147	80 - 120	9	20	F	F
Lead	116	137	80 - 120	9	20		F
Manganese	38	84	80 - 120	14	20	F	
Nickel	115	129	80 - 120	5	20		F
Selenium	109	126	80 - 120	7	20		F
Silver	111	126	80 - 120	6	20		F
Thallium	115	133	80 - 120	8	20		F
Aluminum	672	1022	80 - 120	7	20	4	4
Zinc	115	186	80 - 120	33	20		F
Barium	113	128	80 - 120	5	20		F
Cobalt	111	125	80 - 120	5	20		F
Sodium	128	150	80 - 120	9	20	F	F
Vanadium	113	139	80 - 120	9	20		F

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95118

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28356-11	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	09/13/2011 1817		
Prep Date:	09/12/2011 0900		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28356-11
Client Matrix:	Solid
Dilution:	50
Analysis Date:	09/13/2011 1821
Prep Date:	09/12/2011 0900
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Antimony	0.36		175	164	133	F	142	
Arsenic	9.6		234	219	272		288	F
Beryllium	0.094	J	5.84	5.47	6.57		7.09	F
Cadmium	0.18	J	5.84	5.47	6.79		7.13	F
Chromium	9.7		23.4	21.9	36.4		38.1	F
Copper	12		29.2	27.3	47.4	F	52.0	F
Lead	9.0		58.4	54.7	76.8		84.2	F
Manganese	140		58.4	54.7	161	F	185	
Nickel	5.2		58.4	54.7	72.3		75.6	F
Selenium	0.33	J	234	219	256		275	F
Silver	0.28		35.0	32.8	39.1		41.6	F
Thallium	ND		234	219	269		290	F
Aluminum	7700		234	219	9240	4	9900	4
Zinc	19		58.4	54.7	86.0		120	F
Barium	21		234	219	285		301	F
Cobalt	3.3		58.4	54.7	67.9		71.7	F
Sodium	140		1170	1090	1630	F	1780	F
Vanadium	43		58.4	54.7	109		119	F

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Serial Dilution - Batch: 580-95118

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-11	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	02
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1378 g
Analysis Date:	09/13/2011 1804	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Antimony	0.36		0.398	NC	10	J
Arsenic	9.6		10.5	NC	10	
Beryllium	0.094	J	ND	NC	10	
Cadmium	0.18	J	0.236	NC	10	J
Chromium	9.7		10.3	6.7	10	
Copper	12		13.6	16	10	V
Lead	9.0		10.0	12	10	V
Manganese	140		148	6.7	10	
Nickel	5.2		5.64	NC	10	
Selenium	0.33	J	ND	NC	10	
Silver	0.28		0.270	NC	10	J
Thallium	ND		ND	NC	10	
Aluminum	7700		8060	5.1	10	
Zinc	19		20.8	NC	10	
Barium	21		22.5	6.0	10	
Cobalt	3.3		3.70	11	10	V
Sodium	140		ND	NC	10	
Vanadium	43		45.2	5.2	10	

Duplicate - Batch: 580-95118

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-11	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	026SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.1270 g
Analysis Date:	09/13/2011 1813	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Antimony	0.36		0.391	8	20	
Arsenic	9.6		10.2	6	20	
Beryllium	0.094	J	0.0797	16	20	J
Cadmium	0.18	J	0.184	1	20	J
Chromium	9.7		10.2	5	20	
Copper	12		12.4	5	20	
Lead	9.0		9.38	4	20	
Manganese	140		144	3	20	
Nickel	5.2		5.56	7	20	
Selenium	0.33	J	0.359	9	20	J
Silver	0.28		0.283	2	20	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Duplicate - Batch: 580-95118

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-11	Analysis Batch:	580-95318	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95118	Lab File ID:	026SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.1270 g
Analysis Date:	09/13/2011 1813	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/12/2011 0900				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Thallium	ND	ND	NC	20	
Aluminum	7700	7990	4	20	
Zinc	19	20.1	6	20	
Barium	21	22.5	6	20	
Cobalt	3.3	3.48	4	20	
Sodium	140	145	5	20	
Vanadium	43	44.8	4	20	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95447

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 580-95447/18-A	Analysis Batch:	580-95520	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	174SMPL.D#.raw
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	2.0 g
Analysis Date:	09/16/2011 0351	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1313				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Antimony	ND		0.42	2.0
Arsenic	ND		1.8	5.0
Beryllium	ND		0.22	2.0
Cadmium	ND		0.080	2.0
Chromium	ND		1.1	2.0
Copper	ND		0.98	2.0
Lead	0.442	J	0.13	2.0
Manganese	ND		1.7	5.0
Nickel	ND		2.0	2.0
Selenium	ND		2.0	7.0
Silver	ND		0.12	2.0
Thallium	ND		1.3	5.0
Aluminum	ND		30	300
Zinc	ND		11	7.0
Barium	ND		0.30	2.0
Cobalt	ND		0.19	2.0
Sodium	ND		390	1000
Vanadium	ND		4.7	7.0

Client: Hart Crowser, Inc. Job Number: 580-28356-1

LCS-Certified Reference Material - Batch: 580-95447

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-95520	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	182SMPL.D#.raw
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	1.0096 g
Analysis Date:	09/16/2011 0425	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1326				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	121	222	184	21.0 - 251.6	
Arsenic	109	119	109	71.1 - 128.9	
Beryllium	92.1	93.1	101	75.3 - 124.7	
Cadmium	110	114	104	73.2 - 126.8	
Chromium	93.4	96.1	103	69.9 - 129.8	
Copper	84.7	78.0	92	73.2 - 126.8	
Lead	152	166	109	75.3 - 125.1	
Manganese	443	499	113	75.8 - 124.5	
Nickel	109	117	108	73.8 - 126.7	
Selenium	207	234	113	67.1 - 132.7	
Silver	51.9	50.2	97	65.6 - 134.4	
Thallium	171	182	106	68.8 - 131.2	
Aluminum	9780	8440	86	46.0 - 153.8	
Zinc	299	307	103	72.2 - 127.8	
Barium	325	317	98	74.7 - 125.5	
Cobalt	133	143	108	74.5 - 126.1	
Sodium	724	836	115	52.0 - 148.0	
Vanadium	110	112	102	64.5 - 135.3	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95447

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95447/19-A	Analysis Batch:	580-95520	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	180SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.0 g
Analysis Date:	09/16/2011 0417	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1326				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95447/20-A	Analysis Batch:	580-95520	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	181SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	2.0 g
Analysis Date:	09/16/2011 0421	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1326				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	97	96	80 - 120	1	20		
Arsenic	112	109	80 - 120	2	20		
Beryllium	103	104	80 - 120	1	20		
Cadmium	97	99	80 - 120	2	20		
Chromium	102	102	80 - 120	1	20		
Copper	111	109	80 - 120	2	20		
Lead	98	96	80 - 120	2	20		
Manganese	106	105	80 - 120	1	20		
Nickel	105	105	80 - 120	0	20		
Selenium	110	108	80 - 120	2	20		
Silver	98	98	80 - 120	0	20		
Thallium	102	101	80 - 120	1	20		
Aluminum	107	108	80 - 120	1	20		
Zinc	105	103	80 - 120	2	20		
Barium	96	95	80 - 120	1	20		
Cobalt	103	102	80 - 120	1	20		
Sodium	114	115	80 - 120	1	20		
Vanadium	98	98	80 - 120	0	20		

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95447

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95447/19-A	Units: mg/Kg		LCSD Lab Sample ID:	LCSD 580-95447/20-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	09/16/2011 0417			Analysis Date:	09/16/2011 0421
Prep Date:	09/15/2011 1326			Prep Date:	09/15/2011 1326
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Antimony	150	150	146	144
Arsenic	200	200	224	219
Beryllium	5.00	5.00	5.13	5.18
Cadmium	5.00	5.00	4.87	4.97
Chromium	20.0	20.0	20.3	20.5
Copper	25.0	25.0	27.7	27.3
Lead	50.0	50.0	49.0	47.9
Manganese	50.0	50.0	52.9	52.5
Nickel	50.0	50.0	52.7	52.7
Selenium	200	200	221	216
Silver	30.0	30.0	29.3	29.4
Thallium	200	200	204	202
Aluminum	200	200	214	216
Zinc	50.0	50.0	52.7	51.7
Barium	200	200	192	190
Cobalt	50.0	50.0	51.4	50.9
Sodium	1000	1000	1140	1150
Vanadium	50.0	50.0	49.1	49.2

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Post Digestion Spike - Batch: 580-95447

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-12	Analysis Batch:	580-95520	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	179SMPL.D#.raw
Dilution:	100	Leach Batch:	580-95365	Initial Weight/Volume:	10.0625 g
Analysis Date:	09/16/2011 0412	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	3.6	29.8	14.3	36	75 - 125	W
Arsenic	4800	39.8	4930	NC	75 - 125	
Beryllium	ND	0.994	1.07	107	75 - 125	
Cadmium	0.065 J	0.994	1.64	158	75 - 125	W
Chromium	1.6	3.98	6.13	113	75 - 125	
Copper	410	4.97	428	NC	75 - 125	
Lead	380	9.94	446	NC	75 - 125	
Manganese	110	9.94	138	NC	75 - 125	
Nickel	1.7	9.94	12.8	111	75 - 125	
Selenium	1.8	39.8	36.7	88	75 - 125	
Silver	28	5.96	37.1	149	75 - 125	W
Thallium	ND	39.8	42.5	107	75 - 125	
Aluminum	3300	39.8	4020	NC	75 - 125	
Zinc	34	9.94	122	882	75 - 125	W
Barium	93	39.8	139	116	75 - 125	
Cobalt	4.3	9.94	14.5	103	75 - 125	
Sodium	170 J	199	442	135	75 - 125	W
Vanadium	29	9.94	42.4	135	75 - 125	W

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95447

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28356-12	Analysis Batch:	580-95520	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	177SMPL.D#.raw
Dilution:	100	Leach Batch:	580-95365	Initial Weight/Volume:	9.9949 g
Analysis Date:	09/16/2011 0404			Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

MSD Lab Sample ID:	580-28356-12	Analysis Batch:	580-95520	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	178SMPL.D#.raw
Dilution:	100	Leach Batch:	580-95365	Initial Weight/Volume:	10.0803 g
Analysis Date:	09/16/2011 0408			Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	34	38	80 - 120	8	20	F	F
Arsenic	-118	1506	80 - 120	13	20	4	4
Beryllium	100	106	80 - 120	5	20		
Cadmium	147	105	80 - 120	32	20	F	F
Chromium	104	105	80 - 120	0	20		
Copper	231	261	80 - 120	0	20	4	4
Lead	577	787	80 - 120	5	20	4	4
Manganese	191	103	80 - 120	7	20	4	4
Nickel	104	105	80 - 120	1	20		
Selenium	83	89	80 - 120	5	20		
Silver	132	175	80 - 120	7	20	4	4
Thallium	98	100	80 - 120	2	20		
Aluminum	1344	1640	80 - 120	3	20	4	4
Zinc	824	128	80 - 120	85	20	F	F
Barium	108	123	80 - 120	4	20		F
Cobalt	96	110	80 - 120	9	20		
Sodium	124	132	80 - 120	4	20	F	F
Vanadium	118	126	80 - 120	2	20		F

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95447

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28356-12	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	100		
Analysis Date:	09/16/2011 0404		
Prep Date:	09/15/2011 1311		
Leach Date:	09/12/2011 1115		

MSD Lab Sample ID:	580-28356-12
Client Matrix:	Solid
Dilution:	100
Analysis Date:	09/16/2011 0408
Prep Date:	09/15/2011 1311
Leach Date:	09/12/2011 1115

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Antimony	3.6		30.0	29.8	13.7	F	14.9	F
Arsenic	4800		40.0	39.7	4800	4	5450	4
Beryllium	ND		1.00	0.992	1.00		1.05	
Cadmium	0.065	J	1.00	0.992	1.53	F	1.11	F
Chromium	1.6		4.00	3.97	5.80		5.78	
Copper	410		5.00	4.96	419	4	421	4
Lead	380		10.0	9.92	436	4	457	4
Manganese	110		10.0	9.92	133	4	124	4
Nickel	1.7		10.0	9.92	12.1		12.2	
Selenium	1.8		40.0	39.7	35.0		37.0	
Silver	28		6.00	5.95	36.1	4	38.6	4
Thallium	ND		40.0	39.7	39.0		39.9	
Aluminum	3300		40.0	39.7	3850	4	3970	4
Zinc	34		10.0	9.92	117	F	46.9	F
Barium	93		40.0	39.7	137		142	F
Cobalt	4.3		10.0	9.92	13.9		15.2	
Sodium	170	J	200	198	422	F	437	F
Vanadium	29		10.0	9.92	40.8		41.4	F

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Serial Dilution - Batch: 580-95447

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28356-12	Analysis Batch:	580-95520	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-95447	Lab File ID:	175SMPL.D#.raw
Dilution:	500	Leach Batch:	580-95365	Initial Weight/Volume:	10.0625 g
Analysis Date:	09/16/2011 0355	Units:	mg/Kg	Final Weight/Volume:	100 mL
Prep Date:	09/15/2011 1311				
Leach Date:	09/12/2011 1115				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Antimony	9.2	J	3.56	61	10	V
Arsenic	4900		5020	2.4	10	
Beryllium	ND		ND	NC	10	
Cadmium	ND		ND	NC	10	
Chromium	ND		1.59	NC	10	J
Copper	430		416	3.7	10	
Lead	450		436	3.5	10	
Manganese	120		116	4.3	10	
Nickel	ND		ND	NC	10	
Selenium	ND		ND	NC	10	
Silver	29	J	28.3	1.2	10	
Thallium	ND		ND	98	10	V
Aluminum	3300	J	3410	3.2	10	
Zinc	ND		34.7	NC	10	
Barium	95		92.0	2.7	10	
Cobalt	4.9	J	4.51	7.2	10	
Sodium	ND		ND	NC	10	
Vanadium	ND		28.3	NC	10	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95102

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-95102/17-A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/13/2011 1225	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0053	0.017

LCS-Certified Reference Material - Batch: 580-95102

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.0997 g
Analysis Date:	09/13/2011 1230	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	19.3	119	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95102

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-95102/18-A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/13/2011 1226	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95102/19-A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/13/2011 1228	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	95	91	80 - 120	4	20		

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95102

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-95102/18-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-95102/19-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/13/2011 1226			Analysis Date:	09/13/2011 1228
Prep Date:	09/11/2011 1446			Prep Date:	09/11/2011 1446
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.167	0.167	0.158	0.152

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95102

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28356-1	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6105 g
Analysis Date:	09/13/2011 1235			Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28356-1	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.7151 g
Analysis Date:	09/13/2011 1237			Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	109	105	80 - 120	12	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95102

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28356-1	Units:	mg/Kg	MSD Lab Sample ID:	580-28356-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/13/2011 1235			Analysis Date:	09/13/2011 1237
Prep Date:	09/11/2011 1446			Prep Date:	09/11/2011 1446
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.15	0.225	0.192	0.394	0.349

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Duplicate - Batch: 580-95102

Method: 7471A
Preparation: 7471A

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95102	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6793 g
Analysis Date:	09/13/2011 1233	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/11/2011 1446				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.15	0.143	4	20	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95264

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-95264/21-A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/13/2011 1513	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0053	0.017

LCS-Certified Reference Material - Batch: 580-95264

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.1035 g
Analysis Date:	09/13/2011 1518	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1245				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	20.1	123	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95264

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-95264/22-A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/13/2011 1514	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1245				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95264/23-A	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/13/2011 1516	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1245				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	95	93	80 - 120	2	20		

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95264

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-95264/22-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-95264/23-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/13/2011 1514			Analysis Date:	09/13/2011 1516
Prep Date:	09/13/2011 1245			Prep Date:	09/13/2011 1245
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.167	0.167	0.158	0.156

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95264

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28356-6	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6709 g
Analysis Date:	09/13/2011 1523			Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28356-6	Analysis Batch:	580-95332	Instrument ID:	TAC103		
Client Matrix:	Solid	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV		
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6469 g		
Analysis Date:	09/13/2011 1525			Final Weight/Volume:	50 mL		
Prep Date:	09/13/2011 1242						
Leach Date:	N/A						

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	102	100	80 - 120	1	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95264

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28356-6	Units:	mg/Kg	MSD Lab Sample ID:	580-28356-6
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/13/2011 1523			Analysis Date:	09/13/2011 1525
Prep Date:	09/13/2011 1242			Prep Date:	09/13/2011 1242
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.13	0.158	0.164	0.286	0.290

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Duplicate - Batch: 580-95264

Method: 7471A
Preparation: 7471A

Lab Sample ID:	580-28356-6	Analysis Batch:	580-95332	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95264	Lab File ID:	091311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6715 g
Analysis Date:	09/13/2011 1521	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/13/2011 1242				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.13	0.117	7	20	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Method Blank - Batch: 580-95460

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-95460/6-A	Analysis Batch:	580-95485	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95460	Lab File ID:	091511.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	09/15/2011 1556	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/15/2011 1425				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0063	0.020

LCS-Certified Reference Material - Batch: 580-95460

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM 580-95460/9-A	Analysis Batch:	580-95485	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95460	Lab File ID:	091511.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.1041 g
Analysis Date:	09/15/2011 1607	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/15/2011 1425				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	15.6	96	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95460

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-95460/7-A	Analysis Batch:	580-95485	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95460	Lab File ID:	091511.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	09/15/2011 1557	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/15/2011 1425				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95460/8-A	Analysis Batch:	580-95485	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95460	Lab File ID:	091511.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	5 g
Analysis Date:	09/15/2011 1606	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/15/2011 1425				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	94	92	80 - 120	2	20		

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95460

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-95460/7-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-95460/8-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	10			Dilution:	10
Analysis Date:	09/15/2011 1557			Analysis Date:	09/15/2011 1606
Prep Date:	09/15/2011 1425			Prep Date:	09/15/2011 1425
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.100	0.100	0.0942	0.0920

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95460

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28356-12	Analysis Batch:	580-95485	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95460	Lab File ID:	091511.CSV
Dilution:	10	Leach Batch:	580-95367	Initial Weight/Volume:	5.0171 g
Analysis Date:	09/15/2011 1615			Final Weight/Volume:	50 mL
Prep Date:	09/15/2011 1425				
Leach Date:	09/12/2011 1015				

MSD Lab Sample ID:	580-28356-12	Analysis Batch:	580-95485	Instrument ID:	TAC103		
Client Matrix:	Solid	Prep Batch:	580-95460	Lab File ID:	091511.CSV		
Dilution:	10	Leach Batch:	580-95367	Initial Weight/Volume:	4.9913 g		
Analysis Date:	09/15/2011 1616			Final Weight/Volume:	50 mL		
Prep Date:	09/15/2011 1425						
Leach Date:	09/12/2011 1015						

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	85	143	80 - 120	10	20	4	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95460

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28356-12	Units:	mg/Kg	MSD Lab Sample ID:	580-28356-12
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	10			Dilution:	10
Analysis Date:	09/15/2011 1615			Analysis Date:	09/15/2011 1616
Prep Date:	09/15/2011 1425			Prep Date:	09/15/2011 1425
Leach Date:	09/12/2011 1015			Leach Date:	09/12/2011 1015

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Mercury	0.50	0.0997	0.100	0.584	4	0.643	4

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Duplicate - Batch: 580-95107

Method: 9045C
Preparation: N/A

Lab Sample ID:	580-28356-20	Analysis Batch:	580-95107	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/11/2011 1533	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	4.71	4.690	0.4		

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Duplicate - Batch: 580-95116

Method: Moisture
Preparation: N/A

Lab Sample ID:	580-28356-1	Analysis Batch:	580-95116	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/11/2011 1711	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	73	73	0.7	20	
Percent Moisture	27	27	2	20	

DATA REPORTING QUALIFIERS

Client: Hart Crowser, Inc. Job Number: 580-28356-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	W	PS: Post-digestion spike was outside control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	F	RPD of the MS and MSD exceeds the control limits
	V	Serial Dilution exceeds the control limits

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-95102					
LCS 580-95102/18-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-95102/19-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-95102/20-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-95102/17-A	Method Blank	T	Solid	7471A	
580-28356-1	W-12	T	Solid	7471A	
580-28356-1DU	Duplicate	T	Solid	7471A	
580-28356-1MS	Matrix Spike	T	Solid	7471A	
580-28356-1MSD	Matrix Spike Duplicate	T	Solid	7471A	
580-28356-2	W-10	T	Solid	7471A	
580-28356-3	W-9	T	Solid	7471A	
580-28356-4	W-13	T	Solid	7471A	
580-28356-5	W-15	T	Solid	7471A	
Prep Batch: 580-95113					
LCS 580-95113/22-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-95113/23-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-95113/24-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-95113/21-A	Method Blank	T	Solid	3050B	
580-28356-1	W-12	T	Solid	3050B	
580-28356-1DU	Duplicate	T	Solid	3050B	
580-28356-1MS	Matrix Spike	T	Solid	3050B	
580-28356-1MSD	Matrix Spike Duplicate	T	Solid	3050B	
580-28356-2	W-10	T	Solid	3050B	
580-28356-3	W-9	T	Solid	3050B	
580-28356-4	W-13	T	Solid	3050B	
580-28356-5	W-15	T	Solid	3050B	
580-28356-6	W-14	T	Solid	3050B	
580-28356-7	G-1	T	Solid	3050B	
580-28356-8	G-2	T	Solid	3050B	
580-28356-9	G-3	T	Solid	3050B	
580-28356-10	G-4	T	Solid	3050B	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-95118					
LCS 580-95118/17-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-95118/18-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-95118/19-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-95118/16-A	Method Blank	T	Solid	3050B	
580-28356-11	G-5	T	Solid	3050B	
580-28356-11DU	Duplicate	T	Solid	3050B	
580-28356-11MS	Matrix Spike	T	Solid	3050B	
580-28356-11MSD	Matrix Spike Duplicate	T	Solid	3050B	
580-28356-13	Potomac 2 (0-6)	T	Solid	3050B	
580-28356-14	Potomac 2 (6-12)	T	Solid	3050B	
580-28356-15	Potomac 3 (0-6)	T	Solid	3050B	
580-28356-16	Potomac 3 (6-12)	T	Solid	3050B	
580-28356-17	IXL 1 (0-6)	T	Solid	3050B	
580-28356-18	IXL 1 (6-12)	T	Solid	3050B	
580-28356-19	IXL 2 (0-6)	T	Solid	3050B	
580-28356-20	IXL 2 (6-12)	T	Solid	3050B	
580-28356-21	W-8	T	Solid	3050B	
580-28356-22	W-16	T	Solid	3050B	
580-28356-23	W-11	T	Solid	3050B	
Prep Batch: 580-95264					
LCS 580-95264/22-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-95264/23-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-95264/24-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-95264/21-A	Method Blank	T	Solid	7471A	
580-28356-6	W-14	T	Solid	7471A	
580-28356-6DU	Duplicate	T	Solid	7471A	
580-28356-6MS	Matrix Spike	T	Solid	7471A	
580-28356-6MSD	Matrix Spike Duplicate	T	Solid	7471A	
580-28356-7	G-1	T	Solid	7471A	
580-28356-8	G-2	T	Solid	7471A	
580-28356-9	G-3	T	Solid	7471A	
580-28356-10	G-4	T	Solid	7471A	
580-28356-11	G-5	T	Solid	7471A	
580-28356-13	Potomac 2 (0-6)	T	Solid	7471A	
580-28356-14	Potomac 2 (6-12)	T	Solid	7471A	
580-28356-15	Potomac 3 (0-6)	T	Solid	7471A	
580-28356-16	Potomac 3 (6-12)	T	Solid	7471A	
580-28356-17	IXL 1 (0-6)	T	Solid	7471A	
580-28356-18	IXL 1 (6-12)	T	Solid	7471A	
580-28356-19	IXL 2 (0-6)	T	Solid	7471A	
580-28356-20	IXL 2 (6-12)	T	Solid	7471A	
580-28356-21	W-8	T	Solid	7471A	
580-28356-22	W-16	T	Solid	7471A	
580-28356-23	W-11	T	Solid	7471A	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-95314					
LCS 580-95113/22-A	Lab Control Sample	T	Solid	6010B	580-95113
LCSD 580-95113/23-A	Lab Control Sample Duplicate	T	Solid	6010B	580-95113
LCSSRM 580-95113/24-A	LCS-Certified Reference Material	T	Solid	6010B	580-95113
MB 580-95113/21-A	Method Blank	T	Solid	6010B	580-95113
LCS 580-95118/17-A	Lab Control Sample	T	Solid	6010B	580-95118
LCSD 580-95118/18-A	Lab Control Sample Duplicate	T	Solid	6010B	580-95118
LCSSRM 580-95118/19-A	LCS-Certified Reference Material	T	Solid	6010B	580-95118
MB 580-95118/16-A	Method Blank	T	Solid	6010B	580-95118
580-28356-1	W-12	T	Solid	6010B	580-95113
580-28356-1DU	Duplicate	T	Solid	6010B	580-95113
580-28356-1MS	Matrix Spike	T	Solid	6010B	580-95113
580-28356-1MSD	Matrix Spike Duplicate	T	Solid	6010B	580-95113
580-28356-2	W-10	T	Solid	6010B	580-95113
580-28356-3	W-9	T	Solid	6010B	580-95113
580-28356-4	W-13	T	Solid	6010B	580-95113
580-28356-5	W-15	T	Solid	6010B	580-95113
580-28356-6	W-14	T	Solid	6010B	580-95113
580-28356-7	G-1	T	Solid	6010B	580-95113
580-28356-8	G-2	T	Solid	6010B	580-95113
580-28356-9	G-3	T	Solid	6010B	580-95113
580-28356-10	G-4	T	Solid	6010B	580-95113
580-28356-11	G-5	T	Solid	6010B	580-95118
580-28356-11DU	Duplicate	T	Solid	6010B	580-95118
580-28356-11MS	Matrix Spike	T	Solid	6010B	580-95118
580-28356-11MSD	Matrix Spike Duplicate	T	Solid	6010B	580-95118
580-28356-13	Potomac 2 (0-6)	T	Solid	6010B	580-95118
580-28356-14	Potomac 2 (6-12)	T	Solid	6010B	580-95118
580-28356-15	Potomac 3 (0-6)	T	Solid	6010B	580-95118
580-28356-16	Potomac 3 (6-12)	T	Solid	6010B	580-95118
580-28356-17	IXL 1 (0-6)	T	Solid	6010B	580-95118
580-28356-18	IXL 1 (6-12)	T	Solid	6010B	580-95118
580-28356-19	IXL 2 (0-6)	T	Solid	6010B	580-95118
580-28356-20	IXL 2 (6-12)	T	Solid	6010B	580-95118
580-28356-21	W-8	T	Solid	6010B	580-95118
580-28356-22	W-16	T	Solid	6010B	580-95118
580-28356-23	W-11	T	Solid	6010B	580-95118

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-95318					
LCS 580-95113/22-A	Lab Control Sample	T	Solid	6020	580-95113
LCSD 580-95113/23-A	Lab Control Sample Duplicate	T	Solid	6020	580-95113
LCSSRM 580-95113/24-A	LCS-Certified Reference Material	T	Solid	6020	580-95113
MB 580-95113/21-A	Method Blank	T	Solid	6020	580-95113
LCS 580-95118/17-A	Lab Control Sample	T	Solid	6020	580-95118
LCSD 580-95118/18-A	Lab Control Sample Duplicate	T	Solid	6020	580-95118
LCSSRM 580-95118/19-A	LCS-Certified Reference Material	T	Solid	6020	580-95118
MB 580-95118/16-A	Method Blank	T	Solid	6020	580-95118
580-28356-1	W-12	T	Solid	6020	580-95113
580-28356-1DU	Duplicate	T	Solid	6020	580-95113
580-28356-1MS	Matrix Spike	T	Solid	6020	580-95113
580-28356-1MSD	Matrix Spike Duplicate	T	Solid	6020	580-95113
580-28356-2	W-10	T	Solid	6020	580-95113
580-28356-3	W-9	T	Solid	6020	580-95113
580-28356-4	W-13	T	Solid	6020	580-95113
580-28356-5	W-15	T	Solid	6020	580-95113
580-28356-6	W-14	T	Solid	6020	580-95113
580-28356-7	G-1	T	Solid	6020	580-95113
580-28356-8	G-2	T	Solid	6020	580-95113
580-28356-9	G-3	T	Solid	6020	580-95113
580-28356-10	G-4	T	Solid	6020	580-95113
580-28356-11	G-5	T	Solid	6020	580-95118
580-28356-11DU	Duplicate	T	Solid	6020	580-95118
580-28356-11MS	Matrix Spike	T	Solid	6020	580-95118
580-28356-11MSD	Matrix Spike Duplicate	T	Solid	6020	580-95118
580-28356-13	Potomac 2 (0-6)	T	Solid	6020	580-95118
580-28356-14	Potomac 2 (6-12)	T	Solid	6020	580-95118
580-28356-15	Potomac 3 (0-6)	T	Solid	6020	580-95118
580-28356-16	Potomac 3 (6-12)	T	Solid	6020	580-95118
580-28356-17	IXL 1 (0-6)	T	Solid	6020	580-95118
580-28356-18	IXL 1 (6-12)	T	Solid	6020	580-95118
580-28356-19	IXL 2 (0-6)	T	Solid	6020	580-95118
580-28356-20	IXL 2 (6-12)	T	Solid	6020	580-95118
580-28356-21	W-8	T	Solid	6020	580-95118
580-28356-22	W-16	T	Solid	6020	580-95118
580-28356-23	W-11	T	Solid	6020	580-95118

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-95332					
LCS 580-95102/18-A	Lab Control Sample	T	Solid	7471A	580-95102
LCSD 580-95102/19-A	Lab Control Sample Duplicate	T	Solid	7471A	580-95102
LCSSRM 580-95102/20-A	LCS-Certified Reference Material	T	Solid	7471A	580-95102
MB 580-95102/17-A	Method Blank	T	Solid	7471A	580-95102
LCS 580-95264/22-A	Lab Control Sample	T	Solid	7471A	580-95264
LCSD 580-95264/23-A	Lab Control Sample Duplicate	T	Solid	7471A	580-95264
LCSSRM 580-95264/24-A	LCS-Certified Reference Material	T	Solid	7471A	580-95264
MB 580-95264/21-A	Method Blank	T	Solid	7471A	580-95264
580-28356-1	W-12	T	Solid	7471A	580-95102
580-28356-1DU	Duplicate	T	Solid	7471A	580-95102
580-28356-1MS	Matrix Spike	T	Solid	7471A	580-95102
580-28356-1MSD	Matrix Spike Duplicate	T	Solid	7471A	580-95102
580-28356-2	W-10	T	Solid	7471A	580-95102
580-28356-3	W-9	T	Solid	7471A	580-95102
580-28356-4	W-13	T	Solid	7471A	580-95102
580-28356-5	W-15	T	Solid	7471A	580-95102
580-28356-6	W-14	T	Solid	7471A	580-95264
580-28356-6DU	Duplicate	T	Solid	7471A	580-95264
580-28356-6MS	Matrix Spike	T	Solid	7471A	580-95264
580-28356-6MSD	Matrix Spike Duplicate	T	Solid	7471A	580-95264
580-28356-7	G-1	T	Solid	7471A	580-95264
580-28356-8	G-2	T	Solid	7471A	580-95264
580-28356-9	G-3	T	Solid	7471A	580-95264
580-28356-10	G-4	T	Solid	7471A	580-95264
580-28356-11	G-5	T	Solid	7471A	580-95264
580-28356-13	Potomac 2 (0-6)	T	Solid	7471A	580-95264
580-28356-14	Potomac 2 (6-12)	T	Solid	7471A	580-95264
580-28356-15	Potomac 3 (0-6)	T	Solid	7471A	580-95264
580-28356-16	Potomac 3 (6-12)	T	Solid	7471A	580-95264
580-28356-17	IXL 1 (0-6)	T	Solid	7471A	580-95264
580-28356-18	IXL 1 (6-12)	T	Solid	7471A	580-95264
580-28356-19	IXL 2 (0-6)	T	Solid	7471A	580-95264
580-28356-20	IXL 2 (6-12)	T	Solid	7471A	580-95264
580-28356-21	W-8	T	Solid	7471A	580-95264
580-28356-22	W-16	T	Solid	7471A	580-95264
580-28356-23	W-11	T	Solid	7471A	580-95264
Prep Batch: 580-95365					
580-28356-12	Potomac 1	T	Solid	Increm, Prep	
580-28356-12MS	Matrix Spike	T	Solid	Increm, Prep	
580-28356-12MSD	Matrix Spike Duplicate	T	Solid	Increm, Prep	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-95367					
580-28356-12	Potomac 1	T	Solid	Increm, Prep	
580-28356-12MS	Matrix Spike	T	Solid	Increm, Prep	
580-28356-12MSD	Matrix Spike Duplicate	T	Solid	Increm, Prep	
Analysis Batch:580-95377					
580-28356-13	Potomac 2 (0-6)	T	Solid	6020	580-95118
580-28356-14	Potomac 2 (6-12)	T	Solid	6020	580-95118
580-28356-15	Potomac 3 (0-6)	T	Solid	6020	580-95118
580-28356-16	Potomac 3 (6-12)	T	Solid	6020	580-95118
580-28356-17	IXL 1 (0-6)	T	Solid	6020	580-95118
580-28356-18	IXL 1 (6-12)	T	Solid	6020	580-95118
580-28356-19	IXL 2 (0-6)	T	Solid	6020	580-95118
580-28356-20	IXL 2 (6-12)	T	Solid	6020	580-95118
580-28356-21	W-8	T	Solid	6020	580-95118
580-28356-22	W-16	T	Solid	6020	580-95118
580-28356-23	W-11	T	Solid	6020	580-95118
Analysis Batch:580-95389					
MB 580-95113/21-A	Method Blank	T	Solid	6010B	580-95113
MB 580-95118/16-A	Method Blank	T	Solid	6010B	580-95118
580-28356-3	W-9	T	Solid	6010B	580-95113
580-28356-4	W-13	T	Solid	6010B	580-95113
580-28356-5	W-15	T	Solid	6010B	580-95113
580-28356-7	G-1	T	Solid	6010B	580-95113
580-28356-10	G-4	T	Solid	6010B	580-95113
580-28356-17	IXL 1 (0-6)	T	Solid	6010B	580-95118
580-28356-18	IXL 1 (6-12)	T	Solid	6010B	580-95118
580-28356-19	IXL 2 (0-6)	T	Solid	6010B	580-95118
580-28356-20	IXL 2 (6-12)	T	Solid	6010B	580-95118
580-28356-21	W-8	T	Solid	6010B	580-95118
Analysis Batch:580-95404					
LCS 580-95113/22-A	Lab Control Sample	T	Solid	6010B	580-95113
LCSD 580-95113/23-A	Lab Control Sample Duplicate	T	Solid	6010B	580-95113
LCSSRM 580-95113/24-A	LCS-Certified Reference Material	T	Solid	6010B	580-95113
MB 580-95113/21-A	Method Blank	T	Solid	6010B	580-95113
580-28356-1	W-12	T	Solid	6010B	580-95113
580-28356-1DU	Duplicate	T	Solid	6010B	580-95113
580-28356-1MS	Matrix Spike	T	Solid	6010B	580-95113
580-28356-1MSD	Matrix Spike Duplicate	T	Solid	6010B	580-95113

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-95447					
LCS 580-95447/19-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-95447/20-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-95447/21-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-95447/18-A	Method Blank	T	Solid	3050B	
580-28356-12	Potomac 1	T	Solid	3050B	580-95365
580-28356-12MS	Matrix Spike	T	Solid	3050B	580-95365
580-28356-12MSD	Matrix Spike Duplicate	T	Solid	3050B	580-95365
Prep Batch: 580-95460					
LCS 580-95460/7-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-95460/8-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-95460/9-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-95460/6-A	Method Blank	T	Solid	7471A	
580-28356-12	Potomac 1	T	Solid	7471A	580-95367
580-28356-12MS	Matrix Spike	T	Solid	7471A	580-95367
580-28356-12MSD	Matrix Spike Duplicate	T	Solid	7471A	580-95367
Analysis Batch:580-95485					
LCS 580-95460/7-A	Lab Control Sample	T	Solid	7471A	580-95460
LCSD 580-95460/8-A	Lab Control Sample Duplicate	T	Solid	7471A	580-95460
LCSSRM 580-95460/9-A	LCS-Certified Reference Material	T	Solid	7471A	580-95460
MB 580-95460/6-A	Method Blank	T	Solid	7471A	580-95460
580-28356-12	Potomac 1	T	Solid	7471A	580-95460
580-28356-12MS	Matrix Spike	T	Solid	7471A	580-95460
580-28356-12MSD	Matrix Spike Duplicate	T	Solid	7471A	580-95460
Analysis Batch:580-95520					
LCS 580-95447/19-A	Lab Control Sample	T	Solid	6020	580-95447
LCSD 580-95447/20-A	Lab Control Sample Duplicate	T	Solid	6020	580-95447
LCSSRM 580-95447/21-A	LCS-Certified Reference Material	T	Solid	6020	580-95447
MB 580-95447/18-A	Method Blank	T	Solid	6020	580-95447
580-28356-12	Potomac 1	T	Solid	6020	580-95447
580-28356-12MS	Matrix Spike	T	Solid	6020	580-95447
580-28356-12MSD	Matrix Spike Duplicate	T	Solid	6020	580-95447
Analysis Batch:580-95537					
LCS 580-95447/19-A	Lab Control Sample	T	Solid	6010B	580-95447
LCSD 580-95447/20-A	Lab Control Sample Duplicate	T	Solid	6010B	580-95447
LCSSRM 580-95447/21-A	LCS-Certified Reference Material	T	Solid	6010B	580-95447
MB 580-95447/18-A	Method Blank	T	Solid	6010B	580-95447
580-28356-12	Potomac 1	T	Solid	6010B	580-95447
580-28356-12MS	Matrix Spike	T	Solid	6010B	580-95447
580-28356-12MSD	Matrix Spike Duplicate	T	Solid	6010B	580-95447

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis
T = Total

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:580-95104					
580-28356-1	W-12	T	Solid	9045C	
580-28356-2	W-10	T	Solid	9045C	
580-28356-3	W-9	T	Solid	9045C	
580-28356-4	W-13	T	Solid	9045C	
580-28356-5	W-15	T	Solid	9045C	
580-28356-6	W-14	T	Solid	9045C	
580-28356-7	G-1	T	Solid	9045C	
580-28356-8	G-2	T	Solid	9045C	
580-28356-9	G-3	T	Solid	9045C	
580-28356-10	G-4	T	Solid	9045C	
580-28356-11	G-5	T	Solid	9045C	
580-28356-13	Potomac 2 (0-6)	T	Solid	9045C	
580-28356-14	Potomac 2 (6-12)	T	Solid	9045C	
580-28356-15	Potomac 3 (0-6)	T	Solid	9045C	
580-28356-16	Potomac 3 (6-12)	T	Solid	9045C	
580-28356-17	IXL 1 (0-6)	T	Solid	9045C	
580-28356-18	IXL 1 (6-12)	T	Solid	9045C	
Analysis Batch:580-95107					
580-28356-19	IXL 2 (0-6)	T	Solid	9045C	
580-28356-20	IXL 2 (6-12)	T	Solid	9045C	
580-28356-20DU	Duplicate	T	Solid	9045C	
580-28356-21	W-8	T	Solid	9045C	
580-28356-22	W-16	T	Solid	9045C	
580-28356-23	W-11	T	Solid	9045C	

Client: Hart Crowser, Inc. Job Number: 580-28356-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:580-95116					
580-28356-1	W-12	T	Solid	Moisture	
580-28356-1DU	Duplicate	T	Solid	Moisture	
580-28356-2	W-10	T	Solid	Moisture	
580-28356-3	W-9	T	Solid	Moisture	
580-28356-4	W-13	T	Solid	Moisture	
580-28356-5	W-15	T	Solid	Moisture	
580-28356-6	W-14	T	Solid	Moisture	
580-28356-7	G-1	T	Solid	Moisture	
580-28356-8	G-2	T	Solid	Moisture	
580-28356-9	G-3	T	Solid	Moisture	
580-28356-10	G-4	T	Solid	Moisture	
580-28356-11	G-5	T	Solid	Moisture	
580-28356-13	Potomac 2 (0-6)	T	Solid	Moisture	
580-28356-14	Potomac 2 (6-12)	T	Solid	Moisture	
580-28356-15	Potomac 3 (0-6)	T	Solid	Moisture	
580-28356-16	Potomac 3 (6-12)	T	Solid	Moisture	
580-28356-17	IXL 1 (0-6)	T	Solid	Moisture	
580-28356-18	IXL 1 (6-12)	T	Solid	Moisture	
580-28356-19	IXL 2 (0-6)	T	Solid	Moisture	
580-28356-20	IXL 2 (6-12)	T	Solid	Moisture	
580-28356-21	W-8	T	Solid	Moisture	
580-28356-22	W-16	T	Solid	Moisture	
580-28356-23	W-11	T	Solid	Moisture	

Report Basis
T = Total

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Hg_CAL_WORK_00008	10/12/11	07/12/11	H2O, Lot standard	1000 mg/L	Hg_CAL_STOCK_00001	1 mL	Mercury	0.1 mg/L
.Hg_CAL_STOCK_00001	06/30/14	AccuStandard, Lot B7045094-1A			(Purchased Reagent)		Mercury	100 mg/L
Hg_ICV_WORK_00009	10/12/11	07/12/11	H2O, Lot standard	1000 mg/L	Hg_ICV_STOCK_00002	1 mL	Mercury	0.1 mg/L
.Hg_ICV_STOCK_00002	01/29/12	CPI, Lot 10D252			(Purchased Reagent)		Mercury	100 mg/L
ICP CCV_00033	07/28/12	08/03/11	DI, Lot NA	1000 mL	ICP Std SolnA_00001	2 mL	Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	20 mg/L
.ICP Std SolnA_00001	07/28/12	CPI, Lot 11A193			(Purchased Reagent)		Calcium	10000 ug/mL
							Iron	5000 ug/mL
							Magnesium	10000 ug/mL
							Potassium	10000 ug/mL
ICP ICSA_00036	11/26/12	08/03/11	DI, Lot NA	500 mL	ICP ICSA_00033	50 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
.ICP ICSA_00033	11/26/12	CPI, Lot 11E080			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
ICP ICSAB_00028	11/26/12	08/03/11	H2O, Lot NA	500 mL	ICP ICSA_00033	50 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
					ICPICSB B_00004	5 mL	Silver	3 mg/L
					ICPICSB-A_00003	5 mL	Arsenic	10 mg/L
							Barium	3 mg/L
							Beryllium	1 mg/L
							Cadmium	3 mg/L
							Chromium	3 mg/L
							Cobalt	3 mg/L
							Copper	3 mg/L
							Lead	10 mg/L
							Manganese	2 mg/L
							Nickel	3 mg/L
							Potassium	200 mg/L
							Selenium	5 mg/L
							Thallium	10 mg/L
							Vanadium	3 mg/L
							Zinc	3 mg/L
					ICPICSB-C_00003	5 mL	Antimony	10 mg/L
					ICPICSB-D_00003	5 mL	B	5 mg/L
							Mo	3 mg/L
.ICP ICSA_00033	11/26/12	CPI, Lot 11E080			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICPICSB B_00004	11/26/12		CPI, Lot 09F247		(Purchased Reagent)		Silver	300 ug/mL
.ICPICSB-A_00003	11/26/12		CPI, Lot 09F247		(Purchased Reagent)		Arsenic	1000 ug/mL
							Barium	300 ug/mL
							Beryllium	100 ug/mL
							Cadmium	300 ug/mL
							Chromium	300 ug/mL
							Cobalt	300 ug/mL
							Copper	300 ug/mL
							Lead	1000 ug/mL
							Manganese	200 ug/mL
							Nickel	300 ug/mL
							Potassium	20000 ug/mL
							Selenium	500 ug/mL
							Thallium	1000 ug/mL
							Vanadium	300 ug/mL
							Zinc	300 ug/mL
.ICPICSB-C_00003	11/26/12		CPI, Lot 09F281		(Purchased Reagent)		Antimony	1000 ug/mL
.ICPICSB-D_00003	11/26/12		CPI, Lot 10I156		(Purchased Reagent)		B	500 ug/mL
							Mo	300 ug/mL
ICP ICV-2_00015	02/10/12	08/03/11	blk, Lot NA	500 mL	ICP ICV B_00002	2.5 mL	Calcium	5 mg/L
							Iron	5 mg/L
							Magnesium	5 mg/L
					ICP ICV C_00002	2.5 mL	Potassium	15 mg/L
.ICP ICV B_00002	02/29/12		Elements, Lot CS7012110		(Purchased Reagent)		Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
.ICP ICV C_00002	02/29/12		Elements, Lot CS7012111		(Purchased Reagent)		Potassium	3000 mg/L
ICP RL_00020	02/10/12	08/03/11	DI, Lot NA	500 mL	ICP ICV B_00002	0.05 mL	Calcium	1.1 mg/L
							Iron	0.2 mg/L
							Magnesium	1.1 mg/L
					ICP ICV C_00002	0.05 mL	Potassium	3.3 mg/L
					ICP RL 02A_00002	0.5 mL	Iron	0.2 mg/L
					ICP RL 02B_00002	0.5 mL	Calcium	1.1 mg/L
							Magnesium	1.1 mg/L
							Potassium	3.3 mg/L
.ICP ICV B_00002	02/29/12		Elements, Lot CS7012110		(Purchased Reagent)		Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
.ICP ICV C_00002	02/29/12		Elements, Lot CS7012111		(Purchased Reagent)		Potassium	3000 mg/L
.ICP RL 02A_00002	02/29/12		Elements, Lot cs7012137		(Purchased Reagent)		Iron	100 mg/L
.ICP RL 02B_00002	02/29/12		Elements, Lot CS7012138		(Purchased Reagent)		Calcium	1000 mg/L
							Magnesium	1000 mg/L
							Potassium	3000 mg/L
ICPMS- ICSA_00002	12/01/11		Inorganic Ventures, Lot d2-meb329124		(Purchased Reagent)		Aluminum	1000 ug/mL
							Calcium	3000 ug/mL
							Iron	2500 ug/mL
							Magnesium	1000 ug/mL
							Mo	20 ug/mL
							P	1000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Potassium	1000 ug/mL
							Sodium	2500 ug/mL
							Ti	20 ug/mL
ICPMS-ICSB_00002	12/01/11	Inorganic Ventures, Lot d2-meb324099			(Purchased Reagent)		Arsenic	10 ug/mL
							Cadmium	10 ug/mL
							Chromium	20 ug/mL
							Cobalt	20 ug/mL
							Copper	20 ug/mL
							Manganese	20 ug/mL
							Nickel	20 ug/mL
							Selenium	10 ug/mL
							Silver	5 ug/mL
							Vanadium	20 ug/mL
							Zinc	10 ug/mL
ICPMS_CAL_WOR_00007	09/22/11	06/30/11	H2O, Lot 123010	1000 mL	ICPMS_CAL_00001	10 mL	Aluminum	1000 ug/L
							Antimony	100 ug/L
							Arsenic	100 ug/L
							Barium	100 ug/L
							Beryllium	100 ug/L
							Cadmium	100 ug/L
							Chromium	100 ug/L
							Cobalt	100 ug/L
							Copper	100 ug/L
							Lead	100 ug/L
							Manganese	100 ug/L
							Nickel	100 ug/L
							Selenium	100 ug/L
							Silver	100 ug/L
							Sodium	10000 ug/L
							Thallium	100 ug/L
							Vanadium	100 ug/L
							Zinc	100 ug/L
.ICPMS_CAL_00001	09/22/11	CPI, Lot 10C166			(Purchased Reagent)		Aluminum	100 mg/L
							Antimony	10 mg/L
							Arsenic	10 mg/L
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Lead	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L
							Selenium	10 mg/L
							Silver	10 mg/L
							Sodium	1000 mg/L
							Thallium	10 mg/L
							Vanadium	10 mg/L
							Zinc	10 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
ICPMS_ICV_WOR_00010	11/15/11	08/15/11	H2O, Lot 021511	1000 mL	ICPMS_ICV_00003	4 mL	Aluminum	400 ug/L
							Antimony	40 ug/L
							Arsenic	40 ug/L
							Barium	40 ug/L
							Beryllium	40 ug/L
							Cadmium	40 ug/L
							Chromium	40 ug/L
							Cobalt	40 ug/L
							Copper	40 ug/L
							Lead	40 ug/L
							Manganese	40 ug/L
							Nickel	40 ug/L
							Selenium	40 ug/L
							Silver	40 ug/L
							Sodium	4000 ug/L
							Thallium	40 ug/L
							Vanadium	40 ug/L
							Zinc	40 ug/L
.ICPMS_ICV_00003	01/30/12		SPEX, Lot 5-236cr		(Purchased Reagent)		Aluminum	100 mg/L
							Antimony	10 mg/L
							Arsenic	10 mg/L
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Lead	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L
							Selenium	10 mg/L
							Silver	10 mg/L
							Sodium	1000 mg/L
							Thallium	10 mg/L
							Vanadium	10 mg/L
							Zinc	10 mg/L
m-GPS-1_00021	12/29/12		CPI, Lot 11F316		(Purchased Reagent)		Aluminum	200 ppm
							Antimony	50 ppm
							Arsenic	200 ppm
							Barium	200 ppm
							Beryllium	5 ppm
							Cadmium	5 ppm
							Chromium	20 ppm
							Cobalt	50 ppm
							Copper	25 ppm
							Iron	100 ppm
							Lead	50 ppm
							Manganese	50 ppm
							Nickel	50 ppm
							Selenium	200 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Silver	5 ppm
							Thallium	200 ppm
							Vanadium	50 ppm
							Zinc	50 ppm
m-GPS-2_00018	12/29/12		CPI, Lot 11F317		(Purchased Reagent)		Antimony	100 ppm
							Silver	25 ppm
m-GPS-3_00018	12/29/12		CPI, Lot 11F319		(Purchased Reagent)		Calcium	1000 ppm
							Iron	1000 ppm
							Magnesium	1000 ppm
							P	1000 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
m-GPS-4_00020	12/29/12		CPI, Lot 11F318		(Purchased Reagent)		B	250 ppm
							Mo	250 ppm
							Sn	250 ppm
							Ti	250 ppm
MS-HgSpk_00011	05/10/12	05/10/11	H2O, Lot standard	1000 mg/L	Hg_CAL_STOCK_00001	25 mL	Mercury	2.5 mg/L
.Hg_CAL_STOCK_00001	06/30/14		AccuStandard, Lot B7045094-1A		(Purchased Reagent)		Mercury	100 mg/L
pH 7 ICV_00002	03/31/12		RICCA, Lot 1003521		(Purchased Reagent)		pH	7 %
SRMsolid_00006	01/31/14		ERA, Lot D069-540		(Purchased Reagent)		Aluminum	9780 mg/Kg
							Antimony	121 mg/Kg
							Arsenic	109 mg/Kg
							B	142 mg/Kg
							Barium	325 mg/Kg
							Beryllium	92.1 mg/Kg
							Cadmium	110 mg/Kg
							Calcium	6700 mg/Kg
							Chromium	93.4 mg/Kg
							Cobalt	133 mg/Kg
							Copper	84.7 mg/Kg
							Iron	13100 mg/Kg
							Lead	152 mg/Kg
							Magnesium	2980 mg/Kg
							Manganese	443 mg/Kg
							Mercury	16.3 mg/Kg
							Mo	82.5 mg/Kg
							Nickel	109 mg/Kg
							Potassium	2770 mg/Kg
							Selenium	207 mg/Kg
							Silver	51.9 mg/Kg
							Sn	135 mg/Kg
							Sodium	724 mg/Kg
							Sr	111 mg/Kg
							Thallium	171 mg/Kg
							Ti	193 mg/Kg
							Vanadium	110 mg/Kg
							Zinc	2220 mg/Kg

Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Monte Cristo 17800-06

TestAmerica Job ID: 580-28356-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG No.:

Project: Monte Cristo 17800-06

Client Sample ID	Lab Sample ID
W-12	580-28356-1
W-10	580-28356-2
W-9	580-28356-3
W-13	580-28356-4
W-15	580-28356-5
W-14	580-28356-6
G-1	580-28356-7
G-2	580-28356-8
G-3	580-28356-9
G-4	580-28356-10
G-5	580-28356-11
Potomac 1	580-28356-12
Potomac 2 (0-6)	580-28356-13
Potomac 2 (6-12)	580-28356-14
Potomac 3 (0-6)	580-28356-15
Potomac 3 (6-12)	580-28356-16
IXL 1 (0-6)	580-28356-17
IXL 1 (6-12)	580-28356-18
IXL 2 (0-6)	580-28356-19
IXL 2 (6-12)	580-28356-20
W-8	580-28356-21
W-16	580-28356-22
W-11	580-28356-23

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-12 | Lab Sample ID: 580-28356-1

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/24/2011 12:37

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 72.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	290	210	20	mg/Kg			1	6010B
7440-70-2	Calcium	810	69	3.9	mg/Kg			1	6010B
7439-89-6	Iron	29000	12	0.76	mg/Kg			1	6010B
7439-95-4	Magnesium	3900	69	4.0	mg/Kg			1	6010B
7429-90-5	Aluminum	28000	37	3.7	mg/Kg			10	6020
7440-36-0	Antimony	0.27	0.25	0.052	mg/Kg			10	6020
7440-38-2	Arsenic	12	0.62	0.22	mg/Kg			10	6020
7440-41-7	Beryllium	0.26	0.25	0.027	mg/Kg			10	6020
7440-43-9	Cadmium	0.22	0.25	0.010	mg/Kg	J		10	6020
7440-47-3	Chromium	29	0.25	0.14	mg/Kg			10	6020
7440-50-8	Copper	36	0.25	0.12	mg/Kg			10	6020
7439-92-1	Lead	9.1	0.25	0.016	mg/Kg			10	6020
7439-96-5	Manganese	190	0.62	0.21	mg/Kg			10	6020
7440-02-0	Nickel	21	0.25	0.25	mg/Kg			10	6020
7782-49-2	Selenium	0.72	0.87	0.25	mg/Kg	J		10	6020
7440-22-4	Silver	0.21	0.25	0.015	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.62	0.16	mg/Kg			10	6020
7440-66-6	Zinc	39	0.87	1.4	mg/Kg			10	6020
7440-39-3	Barium	38	0.25	0.037	mg/Kg		B	10	6020
7440-48-4	Cobalt	7.0	0.25	0.024	mg/Kg			10	6020
7440-23-5	Sodium	87	120	49	mg/Kg	J		10	6020
7440-62-2	Vanadium	74	0.87	0.59	mg/Kg			10	6020
7439-97-6	Mercury	0.15	0.020	0.0063	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-10 | Lab Sample ID: 580-28356-2

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/24/2011 12:45

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 74.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	150	220	21	mg/Kg	J		1	6010B
7440-70-2	Calcium	130	72	4.1	mg/Kg			1	6010B
7439-89-6	Iron	12000	13	0.80	mg/Kg			1	6010B
7439-95-4	Magnesium	340	72	4.2	mg/Kg			1	6010B
7429-90-5	Aluminum	6100	39	3.9	mg/Kg			10	6020
7440-36-0	Antimony	0.17	0.26	0.055	mg/Kg	J		10	6020
7440-38-2	Arsenic	3.5	0.66	0.24	mg/Kg			10	6020
7440-41-7	Beryllium	0.073	0.26	0.029	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.092	0.26	0.010	mg/Kg	J		10	6020
7440-47-3	Chromium	8.6	0.26	0.15	mg/Kg			10	6020
7440-50-8	Copper	11	0.26	0.13	mg/Kg			10	6020
7439-92-1	Lead	5.8	0.26	0.017	mg/Kg			10	6020
7439-96-5	Manganese	32	0.66	0.22	mg/Kg			10	6020
7440-02-0	Nickel	3.9	0.26	0.27	mg/Kg			10	6020
7782-49-2	Selenium	0.42	0.92	0.26	mg/Kg	J		10	6020
7440-22-4	Silver	0.13	0.26	0.016	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.66	0.17	mg/Kg			10	6020
7440-66-6	Zinc	19	0.92	1.5	mg/Kg			10	6020
7440-39-3	Barium	9.1	0.26	0.039	mg/Kg		B	10	6020
7440-48-4	Cobalt	1.7	0.26	0.025	mg/Kg			10	6020
7440-23-5	Sodium	110	130	51	mg/Kg	J		10	6020
7440-62-2	Vanadium	29	0.92	0.62	mg/Kg			10	6020
7439-97-6	Mercury	0.11	0.021	0.0067	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-9 | Lab Sample ID: 580-28356-3

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/24/2011 13:43

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 89.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	250	180	17	mg/Kg			1	6010B
7440-70-2	Calcium	570	58	3.3	mg/Kg			1	6010B
7439-89-6	Iron	37000	1100	65	mg/Kg			100	6010B
7439-95-4	Magnesium	2400	58	3.4	mg/Kg			1	6010B
7429-90-5	Aluminum	23000	32	3.2	mg/Kg			10	6020
7440-36-0	Antimony	0.27	0.21	0.045	mg/Kg			10	6020
7440-38-2	Arsenic	8.5	0.53	0.19	mg/Kg			10	6020
7440-41-7	Beryllium	0.35	0.21	0.023	mg/Kg			10	6020
7440-43-9	Cadmium	0.16	0.21	0.0085	mg/Kg	J		10	6020
7440-47-3	Chromium	27	0.21	0.12	mg/Kg			10	6020
7440-50-8	Copper	24	0.21	0.10	mg/Kg			10	6020
7439-92-1	Lead	10	0.21	0.014	mg/Kg			10	6020
7439-96-5	Manganese	200	0.53	0.18	mg/Kg			10	6020
7440-02-0	Nickel	16	0.21	0.22	mg/Kg			10	6020
7782-49-2	Selenium	0.47	0.74	0.21	mg/Kg	J		10	6020
7440-22-4	Silver	0.15	0.21	0.013	mg/Kg	J		10	6020
7440-28-0	Thallium	0.15	0.53	0.14	mg/Kg	J		10	6020
7440-66-6	Zinc	40	0.74	1.2	mg/Kg			10	6020
7440-39-3	Barium	53	0.21	0.032	mg/Kg		B	10	6020
7440-48-4	Cobalt	6.0	0.21	0.020	mg/Kg			10	6020
7440-23-5	Sodium	110	110	42	mg/Kg			10	6020
7440-62-2	Vanadium	120	0.74	0.50	mg/Kg			10	6020
7439-97-6	Mercury	0.095	0.018	0.0058	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-13 | Lab Sample ID: 580-28356-4

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/24/2011 13:50

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 79.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	610	180	17	mg/Kg			1	6010B
7440-70-2	Calcium	1400	60	3.4	mg/Kg			1	6010B
7439-89-6	Iron	46000	1100	66	mg/Kg			100	6010B
7439-95-4	Magnesium	10000	60	3.5	mg/Kg			1	6010B
7429-90-5	Aluminum	61000	33	3.3	mg/Kg			10	6020
7440-36-0	Antimony	0.36	0.22	0.046	mg/Kg			10	6020
7440-38-2	Arsenic	15	0.54	0.20	mg/Kg			10	6020
7440-41-7	Beryllium	0.94	0.22	0.024	mg/Kg			10	6020
7440-43-9	Cadmium	0.29	0.22	0.0087	mg/Kg			10	6020
7440-47-3	Chromium	64	0.22	0.12	mg/Kg			10	6020
7440-50-8	Copper	77	0.22	0.11	mg/Kg			10	6020
7439-92-1	Lead	12	0.22	0.014	mg/Kg			10	6020
7439-96-5	Manganese	410	0.54	0.18	mg/Kg			10	6020
7440-02-0	Nickel	71	0.22	0.22	mg/Kg			10	6020
7782-49-2	Selenium	1.2	0.76	0.22	mg/Kg			10	6020
7440-22-4	Silver	0.17	0.22	0.013	mg/Kg	J		10	6020
7440-28-0	Thallium	0.18	0.54	0.14	mg/Kg	J		10	6020
7440-66-6	Zinc	120	0.76	1.2	mg/Kg			10	6020
7440-39-3	Barium	77	0.22	0.033	mg/Kg		B	10	6020
7440-48-4	Cobalt	22	0.22	0.021	mg/Kg			10	6020
7440-23-5	Sodium	80	110	43	mg/Kg	J		10	6020
7440-62-2	Vanadium	82	0.76	0.51	mg/Kg			10	6020
7439-97-6	Mercury	0.18	0.015	0.0048	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-15 | Lab Sample ID: 580-28356-5

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/24/2011 14:30

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 86.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	690	170	17	mg/Kg			1	6010B
7440-70-2	Calcium	840	57	3.2	mg/Kg			1	6010B
7439-89-6	Iron	40000	1000	63	mg/Kg			100	6010B
7439-95-4	Magnesium	22000	57	3.3	mg/Kg			1	6010B
7429-90-5	Aluminum	31000	31	3.1	mg/Kg			10	6020
7440-36-0	Antimony	0.34	0.21	0.044	mg/Kg			10	6020
7440-38-2	Arsenic	25	0.52	0.19	mg/Kg			10	6020
7440-41-7	Beryllium	0.64	0.21	0.023	mg/Kg			10	6020
7440-43-9	Cadmium	0.16	0.21	0.0083	mg/Kg	J		10	6020
7440-47-3	Chromium	100	0.21	0.12	mg/Kg			10	6020
7440-50-8	Copper	280	0.21	0.10	mg/Kg			10	6020
7439-92-1	Lead	9.7	0.21	0.014	mg/Kg			10	6020
7439-96-5	Manganese	530	0.52	0.18	mg/Kg			10	6020
7440-02-0	Nickel	320	0.21	0.21	mg/Kg			10	6020
7782-49-2	Selenium	0.70	0.73	0.21	mg/Kg	J		10	6020
7440-22-4	Silver	0.21	0.21	0.012	mg/Kg			10	6020
7440-28-0	Thallium	0.25	0.52	0.14	mg/Kg	J		10	6020
7440-66-6	Zinc	89	0.73	1.2	mg/Kg			10	6020
7440-39-3	Barium	77	0.21	0.031	mg/Kg		B	10	6020
7440-48-4	Cobalt	28	0.21	0.020	mg/Kg			10	6020
7440-23-5	Sodium	130	100	41	mg/Kg			10	6020
7440-62-2	Vanadium	64	0.73	0.49	mg/Kg			10	6020
7439-97-6	Mercury	0.079	0.012	0.0038	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-14 | Lab Sample ID: 580-28356-6

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/24/2011 14:30

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 94.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	270	160	15	mg/Kg			1	6010B
7440-70-2	Calcium	290	52	3.0	mg/Kg			1	6010B
7439-89-6	Iron	23000	9.5	0.58	mg/Kg			1	6010B
7439-95-4	Magnesium	3400	52	3.0	mg/Kg			1	6010B
7429-90-5	Aluminum	19000	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	0.26	0.19	0.040	mg/Kg			10	6020
7440-38-2	Arsenic	11	0.48	0.17	mg/Kg			10	6020
7440-41-7	Beryllium	0.14	0.19	0.021	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.12	0.19	0.0076	mg/Kg	J		10	6020
7440-47-3	Chromium	21	0.19	0.11	mg/Kg			10	6020
7440-50-8	Copper	28	0.19	0.093	mg/Kg			10	6020
7439-92-1	Lead	8.3	0.19	0.012	mg/Kg			10	6020
7439-96-5	Manganese	110	0.48	0.16	mg/Kg			10	6020
7440-02-0	Nickel	19	0.19	0.19	mg/Kg			10	6020
7782-49-2	Selenium	0.50	0.67	0.19	mg/Kg	J		10	6020
7440-22-4	Silver	0.11	0.19	0.011	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.48	0.12	mg/Kg			10	6020
7440-66-6	Zinc	32	0.67	1.1	mg/Kg			10	6020
7440-39-3	Barium	19	0.19	0.029	mg/Kg		B	10	6020
7440-48-4	Cobalt	5.5	0.19	0.018	mg/Kg			10	6020
7440-23-5	Sodium	72	95	37	mg/Kg	J		10	6020
7440-62-2	Vanadium	47	0.67	0.45	mg/Kg			10	6020
7439-97-6	Mercury	0.13	0.015	0.0047	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-1 | Lab Sample ID: 580-28356-7

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/25/2011 10:30

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 92.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1400	170	16	mg/Kg			1	6010B
7440-70-2	Calcium	620	55	3.1	mg/Kg			1	6010B
7439-89-6	Iron	36000	1000	61	mg/Kg			100	6010B
7439-95-4	Magnesium	8600	55	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	34000	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	1.3	0.20	0.042	mg/Kg			10	6020
7440-38-2	Arsenic	110	0.50	0.18	mg/Kg			10	6020
7440-41-7	Beryllium	0.87	0.20	0.022	mg/Kg			10	6020
7440-43-9	Cadmium	0.33	0.20	0.0081	mg/Kg			10	6020
7440-47-3	Chromium	77	0.20	0.11	mg/Kg			10	6020
7440-50-8	Copper	400	0.20	0.099	mg/Kg			10	6020
7439-92-1	Lead	43	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	470	0.50	0.17	mg/Kg			10	6020
7440-02-0	Nickel	81	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	1.7	0.70	0.20	mg/Kg			10	6020
7440-22-4	Silver	0.49	0.20	0.012	mg/Kg			10	6020
7440-28-0	Thallium	0.27	0.50	0.13	mg/Kg	J		10	6020
7440-66-6	Zinc	120	0.70	1.1	mg/Kg			10	6020
7440-39-3	Barium	51	0.20	0.030	mg/Kg		B	10	6020
7440-48-4	Cobalt	31	0.20	0.019	mg/Kg			10	6020
7440-23-5	Sodium	170	100	39	mg/Kg			10	6020
7440-62-2	Vanadium	80	0.70	0.48	mg/Kg			10	6020
7439-97-6	Mercury	0.043	0.013	0.0040	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-2 | Lab Sample ID: 580-28356-8

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/25/2011 10:55

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 80.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	640	170	17	mg/Kg			1	6010B
7440-70-2	Calcium	1200	58	3.3	mg/Kg			1	6010B
7439-89-6	Iron	18000	11	0.64	mg/Kg			1	6010B
7439-95-4	Magnesium	3100	58	3.4	mg/Kg			1	6010B
7429-90-5	Aluminum	23000	32	3.2	mg/Kg			10	6020
7440-36-0	Antimony	1.4	0.21	0.044	mg/Kg			10	6020
7440-38-2	Arsenic	60	0.53	0.19	mg/Kg			10	6020
7440-41-7	Beryllium	0.40	0.21	0.023	mg/Kg			10	6020
7440-43-9	Cadmium	0.44	0.21	0.0084	mg/Kg			10	6020
7440-47-3	Chromium	40	0.21	0.12	mg/Kg			10	6020
7440-50-8	Copper	88	0.21	0.10	mg/Kg			10	6020
7439-92-1	Lead	32	0.21	0.014	mg/Kg			10	6020
7439-96-5	Manganese	1700	0.53	0.18	mg/Kg			10	6020
7440-02-0	Nickel	31	0.21	0.21	mg/Kg			10	6020
7782-49-2	Selenium	0.92	0.74	0.21	mg/Kg			10	6020
7440-22-4	Silver	0.52	0.21	0.013	mg/Kg			10	6020
7440-28-0	Thallium	0.21	0.53	0.14	mg/Kg	J		10	6020
7440-66-6	Zinc	75	0.74	1.2	mg/Kg			10	6020
7440-39-3	Barium	66	0.21	0.032	mg/Kg		B	10	6020
7440-48-4	Cobalt	8.8	0.21	0.020	mg/Kg			10	6020
7440-23-5	Sodium	120	110	41	mg/Kg			10	6020
7440-62-2	Vanadium	46	0.74	0.50	mg/Kg			10	6020
7439-97-6	Mercury	0.17	0.018	0.0057	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-3 | Lab Sample ID: 580-28356-9

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/25/2011 11:35

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 90.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	280	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	380	55	3.1	mg/Kg			1	6010B
7439-89-6	Iron	5700	10	0.61	mg/Kg			1	6010B
7439-95-4	Magnesium	270	55	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	4200	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	0.26	0.20	0.042	mg/Kg			10	6020
7440-38-2	Arsenic	6.2	0.50	0.18	mg/Kg			10	6020
7440-41-7	Beryllium	0.077	0.20	0.022	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.057	0.20	0.0080	mg/Kg	J		10	6020
7440-47-3	Chromium	6.7	0.20	0.11	mg/Kg			10	6020
7440-50-8	Copper	13	0.20	0.098	mg/Kg			10	6020
7439-92-1	Lead	9.3	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	94	0.50	0.17	mg/Kg			10	6020
7440-02-0	Nickel	4.1	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	0.33	0.70	0.20	mg/Kg	J		10	6020
7440-22-4	Silver	0.56	0.20	0.012	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.50	0.13	mg/Kg			10	6020
7440-66-6	Zinc	15	0.70	1.1	mg/Kg			10	6020
7440-39-3	Barium	19	0.20	0.030	mg/Kg		B	10	6020
7440-48-4	Cobalt	2.0	0.20	0.019	mg/Kg			10	6020
7440-23-5	Sodium	110	100	39	mg/Kg			10	6020
7440-62-2	Vanadium	24	0.70	0.47	mg/Kg			10	6020
7439-97-6	Mercury	0.056	0.017	0.0052	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-4 | Lab Sample ID: 580-28356-10

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/25/2011 13:10

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 96.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	510	170	16	mg/Kg			1	6010B
7440-70-2	Calcium	540	56	3.2	mg/Kg			1	6010B
7439-89-6	Iron	27000	1000	62	mg/Kg			100	6010B
7439-95-4	Magnesium	2000	56	3.3	mg/Kg			1	6010B
7429-90-5	Aluminum	11000	31	3.1	mg/Kg			10	6020
7440-36-0	Antimony	0.37	0.20	0.043	mg/Kg			10	6020
7440-38-2	Arsenic	19	0.51	0.18	mg/Kg			10	6020
7440-41-7	Beryllium	0.18	0.20	0.022	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.21	0.20	0.0081	mg/Kg			10	6020
7440-47-3	Chromium	27	0.20	0.11	mg/Kg			10	6020
7440-50-8	Copper	73	0.20	0.10	mg/Kg			10	6020
7439-92-1	Lead	15	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	170	0.51	0.17	mg/Kg			10	6020
7440-02-0	Nickel	14	0.20	0.21	mg/Kg			10	6020
7782-49-2	Selenium	0.66	0.71	0.21	mg/Kg	J		10	6020
7440-22-4	Silver	0.23	0.20	0.012	mg/Kg			10	6020
7440-28-0	Thallium	0.13	0.51	0.13	mg/Kg	J		10	6020
7440-66-6	Zinc	26	0.71	1.1	mg/Kg			10	6020
7440-39-3	Barium	66	0.20	0.031	mg/Kg		B	10	6020
7440-48-4	Cobalt	5.9	0.20	0.019	mg/Kg			10	6020
7440-23-5	Sodium	82	100	40	mg/Kg	J		10	6020
7440-62-2	Vanadium	83	0.71	0.48	mg/Kg			10	6020
7439-97-6	Mercury	0.081	0.017	0.0054	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-5 | Lab Sample ID: 580-28356-11

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/25/2011 15:50

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 79.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	350	180	18	mg/Kg			1	6010B
7440-70-2	Calcium	480	61	3.4	mg/Kg		B	1	6010B
7439-89-6	Iron	13000	11	0.67	mg/Kg		B	1	6010B
7439-95-4	Magnesium	1000	61	3.5	mg/Kg			1	6010B
7429-90-5	Aluminum	7700	33	3.3	mg/Kg			10	6020
7440-36-0	Antimony	0.36	0.22	0.046	mg/Kg			10	6020
7440-38-2	Arsenic	9.6	0.55	0.20	mg/Kg			10	6020
7440-41-7	Beryllium	0.094	0.22	0.024	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.18	0.22	0.0088	mg/Kg	J		10	6020
7440-47-3	Chromium	9.7	0.22	0.12	mg/Kg			10	6020
7440-50-8	Copper	12	0.22	0.11	mg/Kg			10	6020
7439-92-1	Lead	9.0	0.22	0.014	mg/Kg			10	6020
7439-96-5	Manganese	140	0.55	0.19	mg/Kg			10	6020
7440-02-0	Nickel	5.2	0.22	0.22	mg/Kg			10	6020
7782-49-2	Selenium	0.33	0.77	0.22	mg/Kg	J		10	6020
7440-22-4	Silver	0.28	0.22	0.013	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.55	0.14	mg/Kg			10	6020
7440-66-6	Zinc	19	0.77	1.2	mg/Kg			10	6020
7440-39-3	Barium	21	0.22	0.033	mg/Kg			10	6020
7440-48-4	Cobalt	3.3	0.22	0.021	mg/Kg			10	6020
7440-23-5	Sodium	140	110	43	mg/Kg			10	6020
7440-62-2	Vanadium	43	0.77	0.52	mg/Kg			10	6020
7439-97-6	Mercury	0.064	0.020	0.0063	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Potomac 1 Lab Sample ID: 580-28356-12

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 12:30

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	61000	200	12	mg/Kg		B	100	6010B
7440-09-7	Potassium	3000	330	32	mg/Kg			10	6010B
7440-70-2	Calcium	490	110	6.2	mg/Kg			10	6010B
7439-95-4	Magnesium	2200	110	6.4	mg/Kg			10	6010B
7440-38-2	Arsenic	4900	99	36	mg/Kg			10000	6020
7440-36-0	Antimony	3.6	0.40	0.083	mg/Kg			100	6020
7440-41-7	Beryllium	ND	0.40	0.044	mg/Kg			100	6020
7440-43-9	Cadmium	0.065	0.40	0.016	mg/Kg	J		100	6020
7440-47-3	Chromium	1.6	0.40	0.22	mg/Kg			100	6020
7440-50-8	Copper	410	0.40	0.19	mg/Kg			100	6020
7439-92-1	Lead	380	0.40	0.026	mg/Kg		B	100	6020
7439-96-5	Manganese	110	0.99	0.34	mg/Kg			100	6020
7440-02-0	Nickel	1.7	0.40	0.40	mg/Kg			100	6020
7782-49-2	Selenium	1.8	1.4	0.40	mg/Kg			100	6020
7440-22-4	Silver	28	0.40	0.024	mg/Kg			100	6020
7440-28-0	Thallium	ND	0.99	0.26	mg/Kg			100	6020
7440-66-6	Zinc	34	1.4	2.2	mg/Kg			100	6020
7429-90-5	Aluminum	3300	60	6.0	mg/Kg			100	6020
7440-39-3	Barium	93	0.40	0.060	mg/Kg			100	6020
7440-48-4	Cobalt	4.3	0.40	0.038	mg/Kg			100	6020
7440-23-5	Sodium	170	200	78	mg/Kg	J		100	6020
7440-62-2	Vanadium	29	1.4	0.94	mg/Kg			100	6020
7439-97-6	Mercury	0.50	0.020	0.0063	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Potomac 2 (0-6) Lab Sample ID: 580-28356-13

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 13:20

Reporting Basis: DRY Date Received: 08/30/2011 12:20

% Solids: 93.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	150	170	16	mg/Kg	J		1	6010B
7440-70-2	Calcium	200	55	3.1	mg/Kg		B	1	6010B
7439-89-6	Iron	15000	10	0.61	mg/Kg		B	1	6010B
7439-95-4	Magnesium	320	55	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	8900	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	0.94	0.20	0.042	mg/Kg			10	6020
7440-38-2	Arsenic	110	0.50	0.18	mg/Kg			10	6020
7440-41-7	Beryllium	0.11	0.20	0.022	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.090	0.20	0.0080	mg/Kg	J		10	6020
7440-47-3	Chromium	3.9	0.20	0.11	mg/Kg			10	6020
7440-50-8	Copper	1100	0.20	0.098	mg/Kg			10	6020
7439-92-1	Lead	330	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	140	0.50	0.17	mg/Kg			10	6020
7440-02-0	Nickel	1.3	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	0.58	0.70	0.20	mg/Kg	J		10	6020
7440-22-4	Silver	4.2	0.20	0.012	mg/Kg			10	6020
7440-28-0	Thallium	0.14	0.50	0.13	mg/Kg	J		10	6020
7440-66-6	Zinc	14	0.70	1.1	mg/Kg			10	6020
7440-39-3	Barium	5.3	0.20	0.030	mg/Kg			10	6020
7440-48-4	Cobalt	2.0	0.20	0.019	mg/Kg			10	6020
7440-23-5	Sodium	130	100	39	mg/Kg			10	6020
7440-62-2	Vanadium	29	0.70	0.47	mg/Kg			10	6020
7439-97-6	Mercury	0.12	0.017	0.0054	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Potomac 2 (6-12) Lab Sample ID: 580-28356-14

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 13:24

Reporting Basis: DRY Date Received: 08/30/2011 12:20

% Solids: 83.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	110	190	19	mg/Kg	J		1	6010B
7440-70-2	Calcium	200	64	3.6	mg/Kg		B	1	6010B
7439-89-6	Iron	8900	12	0.71	mg/Kg		B	1	6010B
7439-95-4	Magnesium	160	64	3.7	mg/Kg			1	6010B
7429-90-5	Aluminum	5800	35	3.5	mg/Kg			10	6020
7440-36-0	Antimony	0.50	0.23	0.049	mg/Kg			10	6020
7440-38-2	Arsenic	33	0.58	0.21	mg/Kg			10	6020
7440-41-7	Beryllium	0.076	0.23	0.026	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.17	0.23	0.0093	mg/Kg	J		10	6020
7440-47-3	Chromium	3.4	0.23	0.13	mg/Kg			10	6020
7440-50-8	Copper	890	0.23	0.11	mg/Kg			10	6020
7439-92-1	Lead	140	0.23	0.015	mg/Kg			10	6020
7439-96-5	Manganese	59	0.58	0.20	mg/Kg			10	6020
7440-02-0	Nickel	1.2	0.23	0.24	mg/Kg			10	6020
7782-49-2	Selenium	0.36	0.81	0.23	mg/Kg	J		10	6020
7440-22-4	Silver	1.7	0.23	0.014	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.58	0.15	mg/Kg			10	6020
7440-66-6	Zinc	23	0.81	1.3	mg/Kg			10	6020
7440-39-3	Barium	4.2	0.23	0.035	mg/Kg			10	6020
7440-48-4	Cobalt	1.3	0.23	0.022	mg/Kg			10	6020
7440-23-5	Sodium	170	120	46	mg/Kg			10	6020
7440-62-2	Vanadium	24	0.81	0.55	mg/Kg			10	6020
7439-97-6	Mercury	0.069	0.020	0.0063	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Potomac 3 (0-6) Lab Sample ID: 580-28356-15

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 13:33

Reporting Basis: DRY Date Received: 08/30/2011 12:20

% Solids: 92.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	71	150	14	mg/Kg	J		1	6010B
7440-70-2	Calcium	610	49	2.8	mg/Kg		B	1	6010B
7439-89-6	Iron	12000	9.0	0.55	mg/Kg		B	1	6010B
7439-95-4	Magnesium	260	49	2.9	mg/Kg			1	6010B
7429-90-5	Aluminum	14000	27	2.7	mg/Kg			10	6020
7440-36-0	Antimony	0.32	0.18	0.038	mg/Kg			10	6020
7440-38-2	Arsenic	30	0.45	0.16	mg/Kg			10	6020
7440-41-7	Beryllium	0.12	0.18	0.020	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.082	0.18	0.0072	mg/Kg	J		10	6020
7440-47-3	Chromium	5.4	0.18	0.10	mg/Kg			10	6020
7440-50-8	Copper	510	0.18	0.088	mg/Kg			10	6020
7439-92-1	Lead	47	0.18	0.012	mg/Kg			10	6020
7439-96-5	Manganese	44	0.45	0.15	mg/Kg			10	6020
7440-02-0	Nickel	1.2	0.18	0.18	mg/Kg			10	6020
7782-49-2	Selenium	0.58	0.63	0.18	mg/Kg	J		10	6020
7440-22-4	Silver	0.84	0.18	0.011	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.45	0.12	mg/Kg			10	6020
7440-66-6	Zinc	14	0.63	1.0	mg/Kg			10	6020
7440-39-3	Barium	3.1	0.18	0.027	mg/Kg			10	6020
7440-48-4	Cobalt	1.7	0.18	0.017	mg/Kg			10	6020
7440-23-5	Sodium	230	90	35	mg/Kg			10	6020
7440-62-2	Vanadium	23	0.63	0.42	mg/Kg			10	6020
7439-97-6	Mercury	0.069	0.017	0.0052	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Potomac 3 (6-12)
Lab Sample ID: 580-28356-16
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/26/2011 13:40
Reporting Basis: DRY
Date Received: 08/30/2011 12:20
% Solids: 93.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	94	170	16	mg/Kg	J		1	6010B
7440-70-2	Calcium	790	56	3.1	mg/Kg		B	1	6010B
7439-89-6	Iron	13000	10	0.62	mg/Kg		B	1	6010B
7439-95-4	Magnesium	290	56	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	26000	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	0.43	0.20	0.042	mg/Kg			10	6020
7440-38-2	Arsenic	42	0.51	0.18	mg/Kg			10	6020
7440-41-7	Beryllium	0.23	0.20	0.022	mg/Kg			10	6020
7440-43-9	Cadmium	0.12	0.20	0.0081	mg/Kg	J		10	6020
7440-47-3	Chromium	9.2	0.20	0.11	mg/Kg			10	6020
7440-50-8	Copper	630	0.20	0.099	mg/Kg			10	6020
7439-92-1	Lead	60	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	40	0.51	0.17	mg/Kg			10	6020
7440-02-0	Nickel	2.0	0.20	0.21	mg/Kg			10	6020
7782-49-2	Selenium	0.79	0.71	0.20	mg/Kg			10	6020
7440-22-4	Silver	1.2	0.20	0.012	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.51	0.13	mg/Kg			10	6020
7440-66-6	Zinc	20	0.71	1.1	mg/Kg			10	6020
7440-39-3	Barium	6.3	0.20	0.030	mg/Kg			10	6020
7440-48-4	Cobalt	1.5	0.20	0.019	mg/Kg			10	6020
7440-23-5	Sodium	290	100	40	mg/Kg			10	6020
7440-62-2	Vanadium	28	0.71	0.48	mg/Kg			10	6020
7439-97-6	Mercury	0.086	0.015	0.0046	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: IXL 1 (0-6)
Lab Sample ID: 580-28356-17
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/26/2011 14:47
Reporting Basis: DRY
Date Received: 08/30/2011 12:20
% Solids: 87.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1100	160	15	mg/Kg			1	6010B
7440-70-2	Calcium	2400	53	3.0	mg/Kg		B	1	6010B
7439-89-6	Iron	54000	960	59	mg/Kg			100	6010B
7439-95-4	Magnesium	3600	53	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	27000	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	30	0.19	0.040	mg/Kg			10	6020
7440-38-2	Arsenic	4900	48	17	mg/Kg			1000	6020
7440-41-7	Beryllium	0.60	0.19	0.021	mg/Kg			10	6020
7440-43-9	Cadmium	3.6	0.19	0.0077	mg/Kg			10	6020
7440-47-3	Chromium	8.1	0.19	0.11	mg/Kg			10	6020
7440-50-8	Copper	120	0.19	0.094	mg/Kg			10	6020
7439-92-1	Lead	99	0.19	0.013	mg/Kg			10	6020
7439-96-5	Manganese	5600	48	16	mg/Kg			1000	6020
7440-02-0	Nickel	6.9	0.19	0.20	mg/Kg			10	6020
7782-49-2	Selenium	1.4	0.67	0.19	mg/Kg			10	6020
7440-22-4	Silver	0.97	0.19	0.012	mg/Kg			10	6020
7440-28-0	Thallium	5.5	0.48	0.13	mg/Kg			10	6020
7440-66-6	Zinc	460	67	110	mg/Kg			1000	6020
7440-39-3	Barium	79	0.19	0.029	mg/Kg			10	6020
7440-48-4	Cobalt	23	0.19	0.018	mg/Kg			10	6020
7440-23-5	Sodium	200	96	38	mg/Kg			10	6020
7440-62-2	Vanadium	77	0.67	0.46	mg/Kg			10	6020
7439-97-6	Mercury	0.74	0.080	0.025	mg/Kg			5	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: IXL 1 (6-12)
Lab Sample ID: 580-28356-18
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/26/2011 14:55
Reporting Basis: DRY
Date Received: 08/30/2011 12:20
% Solids: 86.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1700	190	18	mg/Kg			1	6010B
7440-70-2	Calcium	2200	62	3.5	mg/Kg		B	1	6010B
7439-89-6	Iron	48000	1100	69	mg/Kg			100	6010B
7439-95-4	Magnesium	4300	62	3.6	mg/Kg			1	6010B
7429-90-5	Aluminum	24000	34	3.4	mg/Kg			10	6020
7440-36-0	Antimony	17	0.23	0.047	mg/Kg			10	6020
7440-38-2	Arsenic	2800	56	20	mg/Kg			1000	6020
7440-41-7	Beryllium	0.54	0.23	0.025	mg/Kg			10	6020
7440-43-9	Cadmium	4.2	0.23	0.0090	mg/Kg			10	6020
7440-47-3	Chromium	7.5	0.23	0.13	mg/Kg			10	6020
7440-50-8	Copper	130	0.23	0.11	mg/Kg			10	6020
7439-92-1	Lead	68	0.23	0.015	mg/Kg			10	6020
7439-96-5	Manganese	16000	56	19	mg/Kg			1000	6020
7440-02-0	Nickel	8.0	0.23	0.23	mg/Kg			10	6020
7782-49-2	Selenium	1.3	0.79	0.23	mg/Kg			10	6020
7440-22-4	Silver	1.2	0.23	0.014	mg/Kg			10	6020
7440-28-0	Thallium	7.3	0.56	0.15	mg/Kg			10	6020
7440-66-6	Zinc	540	79	130	mg/Kg			1000	6020
7440-39-3	Barium	130	0.23	0.034	mg/Kg			10	6020
7440-48-4	Cobalt	23	0.23	0.021	mg/Kg			10	6020
7440-23-5	Sodium	200	110	44	mg/Kg			10	6020
7440-62-2	Vanadium	84	0.79	0.53	mg/Kg			10	6020
7439-97-6	Mercury	0.39	0.016	0.0049	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: IXL 2 (0-6)
Lab Sample ID: 580-28356-19
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/26/2011 14:58
Reporting Basis: DRY
Date Received: 08/30/2011 12:20
% Solids: 96.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1800	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	620	54	3.0	mg/Kg		B	1	6010B
7439-89-6	Iron	51000	970	59	mg/Kg			100	6010B
7439-95-4	Magnesium	1400	54	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	7500	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	58	0.19	0.041	mg/Kg			10	6020
7440-38-2	Arsenic	5400	49	18	mg/Kg			1000	6020
7440-41-7	Beryllium	0.21	0.19	0.021	mg/Kg			10	6020
7440-43-9	Cadmium	1.9	0.19	0.0078	mg/Kg			10	6020
7440-47-3	Chromium	4.8	0.19	0.11	mg/Kg			10	6020
7440-50-8	Copper	150	0.19	0.095	mg/Kg			10	6020
7439-92-1	Lead	170	0.19	0.013	mg/Kg			10	6020
7439-96-5	Manganese	4600	49	17	mg/Kg			1000	6020
7440-02-0	Nickel	3.0	0.19	0.20	mg/Kg			10	6020
7782-49-2	Selenium	1.0	0.68	0.20	mg/Kg			10	6020
7440-22-4	Silver	2.3	0.19	0.012	mg/Kg			10	6020
7440-28-0	Thallium	4.0	0.49	0.13	mg/Kg			10	6020
7440-66-6	Zinc	220	0.68	1.1	mg/Kg			10	6020
7440-39-3	Barium	51	0.19	0.029	mg/Kg			10	6020
7440-48-4	Cobalt	21	0.19	0.018	mg/Kg			10	6020
7440-23-5	Sodium	100	97	38	mg/Kg			10	6020
7440-62-2	Vanadium	54	0.68	0.46	mg/Kg			10	6020
7439-97-6	Mercury	0.92	0.085	0.027	mg/Kg			5	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: IXL 2 (6-12) Lab Sample ID: 580-28356-20

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 15:02

Reporting Basis: DRY Date Received: 08/30/2011 12:20

% Solids: 96.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1500	140	14	mg/Kg			1	6010B
7440-70-2	Calcium	560	48	2.7	mg/Kg		B	1	6010B
7439-89-6	Iron	51000	870	53	mg/Kg			100	6010B
7439-95-4	Magnesium	1500	48	2.8	mg/Kg			1	6010B
7429-90-5	Aluminum	8800	26	2.6	mg/Kg			10	6020
7440-36-0	Antimony	58	0.17	0.037	mg/Kg			10	6020
7440-38-2	Arsenic	7800	44	16	mg/Kg			1000	6020
7440-41-7	Beryllium	0.20	0.17	0.019	mg/Kg			10	6020
7440-43-9	Cadmium	2.1	0.17	0.0070	mg/Kg			10	6020
7440-47-3	Chromium	4.5	0.17	0.099	mg/Kg			10	6020
7440-50-8	Copper	170	0.17	0.086	mg/Kg			10	6020
7439-92-1	Lead	170	0.17	0.011	mg/Kg			10	6020
7439-96-5	Manganese	6200	44	15	mg/Kg			1000	6020
7440-02-0	Nickel	3.5	0.17	0.18	mg/Kg			10	6020
7782-49-2	Selenium	1.1	0.61	0.18	mg/Kg			10	6020
7440-22-4	Silver	2.7	0.17	0.010	mg/Kg			10	6020
7440-28-0	Thallium	5.0	0.44	0.11	mg/Kg			10	6020
7440-66-6	Zinc	230	0.61	0.98	mg/Kg			10	6020
7440-39-3	Barium	51	0.17	0.026	mg/Kg			10	6020
7440-48-4	Cobalt	24	0.17	0.017	mg/Kg			10	6020
7440-23-5	Sodium	100	87	34	mg/Kg			10	6020
7440-62-2	Vanadium	57	0.61	0.41	mg/Kg			10	6020
7439-97-6	Mercury	0.82	0.085	0.027	mg/Kg			5	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-8 | Lab Sample ID: 580-28356-21

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/23/2011 15:00

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 96.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1200	170	16	mg/Kg			1	6010B
7440-70-2	Calcium	1500	55	3.1	mg/Kg		B	1	6010B
7439-89-6	Iron	37000	1000	61	mg/Kg			100	6010B
7439-95-4	Magnesium	17000	55	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	17000	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	0.46	0.20	0.042	mg/Kg			10	6020
7440-38-2	Arsenic	120	0.50	0.18	mg/Kg			10	6020
7440-41-7	Beryllium	0.34	0.20	0.022	mg/Kg			10	6020
7440-43-9	Cadmium	0.21	0.20	0.0080	mg/Kg			10	6020
7440-47-3	Chromium	63	0.20	0.11	mg/Kg			10	6020
7440-50-8	Copper	92	0.20	0.098	mg/Kg			10	6020
7439-92-1	Lead	14	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	420	0.50	0.17	mg/Kg			10	6020
7440-02-0	Nickel	130	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	0.77	0.70	0.20	mg/Kg			10	6020
7440-22-4	Silver	0.13	0.20	0.012	mg/Kg	J		10	6020
7440-28-0	Thallium	0.29	0.50	0.13	mg/Kg	J		10	6020
7440-66-6	Zinc	62	0.70	1.1	mg/Kg			10	6020
7440-39-3	Barium	54	0.20	0.030	mg/Kg			10	6020
7440-48-4	Cobalt	15	0.20	0.019	mg/Kg			10	6020
7440-23-5	Sodium	330	100	39	mg/Kg			10	6020
7440-62-2	Vanadium	61	0.70	0.47	mg/Kg			10	6020
7439-97-6	Mercury	0.084	0.013	0.0042	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-16 | Lab Sample ID: 580-28356-22

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/23/2011 15:25

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 78.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	200	190	18	mg/Kg			1	6010B
7440-70-2	Calcium	250	62	3.5	mg/Kg		B	1	6010B
7439-89-6	Iron	26000	11	0.69	mg/Kg		B	1	6010B
7439-95-4	Magnesium	1000	62	3.6	mg/Kg			1	6010B
7429-90-5	Aluminum	31000	34	3.4	mg/Kg			10	6020
7440-36-0	Antimony	0.29	0.23	0.048	mg/Kg			10	6020
7440-38-2	Arsenic	9.9	0.57	0.20	mg/Kg			10	6020
7440-41-7	Beryllium	0.23	0.23	0.025	mg/Kg			10	6020
7440-43-9	Cadmium	0.22	0.23	0.0091	mg/Kg	J		10	6020
7440-47-3	Chromium	34	0.23	0.13	mg/Kg			10	6020
7440-50-8	Copper	36	0.23	0.11	mg/Kg			10	6020
7439-92-1	Lead	10	0.23	0.015	mg/Kg			10	6020
7439-96-5	Manganese	63	0.57	0.19	mg/Kg			10	6020
7440-02-0	Nickel	17	0.23	0.23	mg/Kg			10	6020
7782-49-2	Selenium	0.91	0.79	0.23	mg/Kg			10	6020
7440-22-4	Silver	0.38	0.23	0.014	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.57	0.15	mg/Kg			10	6020
7440-66-6	Zinc	23	0.79	1.3	mg/Kg			10	6020
7440-39-3	Barium	20	0.23	0.034	mg/Kg			10	6020
7440-48-4	Cobalt	3.4	0.23	0.022	mg/Kg			10	6020
7440-23-5	Sodium	140	110	44	mg/Kg			10	6020
7440-62-2	Vanadium	61	0.79	0.54	mg/Kg			10	6020
7439-97-6	Mercury	0.27	0.019	0.0059	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-11 | Lab Sample ID: 580-28356-23

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG ID.:

Matrix: Solid | Date Sampled: 08/24/2011 11:25

Reporting Basis: DRY | Date Received: 08/30/2011 12:20

% Solids: 87.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	130	190	18	mg/Kg	J		1	6010B
7440-70-2	Calcium	360	62	3.5	mg/Kg		B	1	6010B
7439-89-6	Iron	7200	11	0.69	mg/Kg		B	1	6010B
7439-95-4	Magnesium	200	62	3.6	mg/Kg			1	6010B
7429-90-5	Aluminum	2000	34	3.4	mg/Kg			10	6020
7440-36-0	Antimony	0.20	0.23	0.048	mg/Kg	J		10	6020
7440-38-2	Arsenic	3.2	0.57	0.20	mg/Kg			10	6020
7440-41-7	Beryllium	ND	0.23	0.025	mg/Kg			10	6020
7440-43-9	Cadmium	0.054	0.23	0.0091	mg/Kg	J		10	6020
7440-47-3	Chromium	4.5	0.23	0.13	mg/Kg			10	6020
7440-50-8	Copper	3.3	0.23	0.11	mg/Kg			10	6020
7439-92-1	Lead	5.5	0.23	0.015	mg/Kg			10	6020
7439-96-5	Manganese	36	0.57	0.19	mg/Kg			10	6020
7440-02-0	Nickel	1.8	0.23	0.23	mg/Kg			10	6020
7782-49-2	Selenium	ND	0.79	0.23	mg/Kg			10	6020
7440-22-4	Silver	0.13	0.23	0.014	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.57	0.15	mg/Kg			10	6020
7440-66-6	Zinc	12	0.79	1.3	mg/Kg			10	6020
7440-39-3	Barium	3.4	0.23	0.034	mg/Kg			10	6020
7440-48-4	Cobalt	1.5	0.23	0.022	mg/Kg			10	6020
7440-23-5	Sodium	150	110	44	mg/Kg			10	6020
7440-62-2	Vanadium	33	0.79	0.54	mg/Kg			10	6020
7439-97-6	Mercury	0.051	0.019	0.0059	mg/Kg			1	7471A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	ICV 580-95314/6 09/13/2011 14:29				CCV 580-95314/11 09/13/2011 15:19				CCV 580-95314/23 09/13/2011 16:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5.11		5.00	102	19.7		20.0	99	19.6		20.0	98
Iron	5.07		5.00	101	9.89		10.0	99	9.92		10.0	99
Magnesium	5.13		5.00	103	20.0		20.0	100	19.5		20.0	98
Potassium	14.6		15.0	97	19.5		20.0	98	19.4		20.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	CCV 580-95314/34 09/13/2011 17:59				CCV 580-95314/43 09/13/2011 19:06				CCV 580-95314/55 09/13/2011 20:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	19.5		20.0	98	19.4		20.0	97	19.4		20.0	97
Iron	9.30		10.0	93	9.49		10.0	95	9.71		10.0	97
Magnesium	18.5		20.0	92	18.8		20.0	94	19.4		20.0	97
Potassium	19.6		20.0	98	19.8		20.0	99	19.0		20.0	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	CCV 580-95314/63 09/13/2011 21:26				CCV 580-95314/70 09/13/2011 22:16							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	19.3		20.0	97	19.0		20.0	95				
Iron	9.86		10.0	99	9.45		10.0	95				
Magnesium	19.6		20.0	98	18.6		20.0	93				
Potassium	18.8		20.0	94	19.2		20.0	96				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	ICV 580-95389/6 09/14/2011 07:50				CCV 580-95389/11 09/14/2011 11:12				CCV 580-95389/19 09/14/2011 12:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5.06		5.00	101	19.8		20.0	99	19.6		20.0	98
Iron	4.88		5.00	98	9.58		10.0	96	9.28		10.0	93
Magnesium	5.04		5.00	101	19.4		20.0	97	18.7		20.0	93

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	CCV 580-95389/27 09/14/2011 13:07											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	19.8		20.0	99								
Iron	9.66		10.0	97								
Magnesium	19.6		20.0	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	ICV 580-95537/6 09/16/2011 10:15				CCV 580-95537/11 09/16/2011 11:09				CCV 580-95537/24 09/16/2011 12:37			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5.01		5.00	100	20.1		20.0	100	19.9		20.0	100
Iron	5.04		5.00	101	9.73		10.0	97	9.59		10.0	96
Magnesium	5.11		5.00	102	19.7		20.0	98	19.2		20.0	96
Potassium	14.9		15.0	100	19.7		20.0	99	19.5		20.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00007

Analyte	ICV 580-95318/7 09/13/2011 16:59				CCV 580-95318/12 09/13/2011 17:51				CCV 580-95318/24 09/13/2011 18:43			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.392		0.400	98	0.521		0.500	104	0.519		0.500	104
Antimony	0.0395		0.0400	99	0.0498		0.0500	100	0.0495		0.0500	99
Arsenic	0.0400		0.0400	100	0.0487		0.0500	97	0.0491		0.0500	98
Barium	0.0399		0.0400	100	0.0488		0.0500	98	0.0495		0.0500	99
Beryllium	0.0395		0.0400	99	0.0510		0.0500	102	0.0504		0.0500	101
Cadmium	0.0401		0.0400	100	0.0494		0.0500	99	0.0489		0.0500	98
Chromium	0.0403		0.0400	101	0.0507		0.0500	101	0.0497		0.0500	99
Cobalt	0.0401		0.0400	100	0.0477		0.0500	95	0.0478		0.0500	96
Copper	0.0413		0.0400	103	0.0488		0.0500	98	0.0491		0.0500	98
Lead	0.0401		0.0400	100	0.0495		0.0500	99	0.0495		0.0500	99
Manganese	0.0406		0.0400	102	0.0510		0.0500	102	0.0503		0.0500	101
Nickel	0.0414		0.0400	103	0.0484		0.0500	97	0.0485		0.0500	97
Selenium	0.0400		0.0400	100	0.0483		0.0500	97	0.0495		0.0500	99
Silver	0.0401		0.0400	100	0.0492		0.0500	98	0.0490		0.0500	98
Sodium	ND		4.00	97	ND		5.00	104	ND		5.00	104
Thallium	0.0402		0.0400	101	0.0486		0.0500	97	0.0495		0.0500	99
Vanadium	0.0403		0.0400	101	0.0501		0.0500	100	0.0491		0.0500	98
Zinc	0.0403		0.0400	101	0.0489		0.0500	98	0.0485		0.0500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00007

Analyte	CCV 580-95318/36 09/13/2011 19:35				CCV 580-95318/39 09/13/2011 19:49				CCV 580-95318/51 09/13/2011 20:41			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.501		0.500	100	0.499		0.500	100	0.489		0.500	98
Antimony	0.0499		0.0500	100	0.0495		0.0500	99	0.0496		0.0500	99
Arsenic	0.0487		0.0500	97	0.0489		0.0500	98	0.0485		0.0500	97
Barium	0.0504		0.0500	101	0.0492		0.0500	98	0.0500		0.0500	100
Beryllium	0.0489		0.0500	98	0.0494		0.0500	99	0.0491		0.0500	98
Cadmium	0.0496		0.0500	99	0.0489		0.0500	98	0.0493		0.0500	99
Chromium	0.0497		0.0500	99	0.0482		0.0500	96	0.0486		0.0500	97
Cobalt	0.0476		0.0500	95	0.0481		0.0500	96	0.0479		0.0500	96
Copper	0.0485		0.0500	97	0.0489		0.0500	98	0.0490		0.0500	98
Lead	0.0494		0.0500	99	0.0490		0.0500	98	0.0488		0.0500	98
Manganese	0.0505		0.0500	101	0.0489		0.0500	98	0.0487		0.0500	97
Nickel	0.0482		0.0500	96	0.0488		0.0500	98	0.0488		0.0500	98
Selenium	0.0483		0.0500	97	0.0490		0.0500	98	0.0494		0.0500	99
Silver	0.0489		0.0500	98	0.0486		0.0500	97	0.0490		0.0500	98
Sodium	ND		5.00	100	ND		5.00	102	ND		5.00	99
Thallium	0.0493		0.0500	99	0.0486		0.0500	97	0.0486		0.0500	97
Vanadium	0.0495		0.0500	99	0.0481		0.0500	96	0.0484		0.0500	97
Zinc	0.0489		0.0500	98	0.0485		0.0500	97	0.0485		0.0500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00007

Analyte	CCV 580-95318/63 09/13/2011 21:33											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.475		0.500	95								
Antimony	0.0491		0.0500	98								
Arsenic	0.0486		0.0500	97								
Barium	0.0491		0.0500	98								
Beryllium	0.0477		0.0500	95								
Cadmium	0.0489		0.0500	98								
Chromium	0.0485		0.0500	97								
Cobalt	0.0481		0.0500	96								
Copper	0.0492		0.0500	98								
Lead	0.0486		0.0500	97								
Manganese	0.0491		0.0500	98								
Nickel	0.0488		0.0500	98								
Selenium	0.0491		0.0500	98								
Silver	0.0485		0.0500	97								
Sodium	ND		5.00	94								
Thallium	0.0481		0.0500	96								
Vanadium	0.0480		0.0500	96								
Zinc	0.0492		0.0500	98								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00007

Analyte	ICV 580-95377/7 09/14/2011 09:35				CCV 580-95377/12 09/14/2011 10:32				CCV 580-95377/24 09/14/2011 11:24			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0399		0.0400	100	0.0490		0.0500	98	0.0489		0.0500	98
Manganese	0.0401		0.0400	100	0.0503		0.0500	101	0.0504		0.0500	101
Zinc	0.0405		0.0400	101	0.0498		0.0500	100	0.0489		0.0500	98
Aluminum	0.394		0.400	98	0.511		0.500	102	0.533		0.500	107
Antimony	0.0398		0.0400	99	0.0496		0.0500	99	0.0502		0.0500	100
Barium	0.0398		0.0400	100	0.0493		0.0500	99	0.0493		0.0500	99
Beryllium	0.0389		0.0400	97	0.0498		0.0500	100	0.0508		0.0500	102
Cadmium	0.0399		0.0400	100	0.0496		0.0500	99	0.0500		0.0500	100
Chromium	0.0398		0.0400	99	0.0493		0.0500	99	0.0492		0.0500	98
Cobalt	0.0403		0.0400	101	0.0484		0.0500	97	0.0476		0.0500	95
Copper	0.0411		0.0400	103	0.0493		0.0500	99	0.0487		0.0500	97
Lead	0.0400		0.0400	100	0.0490		0.0500	98	0.0485		0.0500	97
Nickel	0.0404		0.0400	101	0.0485		0.0500	97	0.0476		0.0500	95
Selenium	0.0399		0.0400	100	0.0492		0.0500	98	0.0490		0.0500	98
Silver	0.0397		0.0400	99	0.0491		0.0500	98	0.0492		0.0500	98
Sodium	ND		4.00	99	ND		5.00	104	ND		5.00	109
Thallium	0.0394		0.0400	98	0.0487		0.0500	97	0.0482		0.0500	96
Vanadium	0.0402		0.0400	100	0.0493		0.0500	99	0.0491		0.0500	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00007

Analyte	CCV 580-95377/29 09/14/2011 11:46											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Arsenic	0.0489		0.0500	98								
Manganese	0.0509		0.0500	102								
Zinc	0.0491		0.0500	98								
Aluminum	0.541		0.500	108								
Antimony	0.0491		0.0500	98								
Barium	0.0491		0.0500	98								
Beryllium	0.0511		0.0500	102								
Cadmium	0.0487		0.0500	97								
Chromium	0.0500		0.0500	100								
Cobalt	0.0476		0.0500	95								
Copper	0.0488		0.0500	98								
Lead	0.0484		0.0500	97								
Nickel	0.0480		0.0500	96								
Selenium	0.0489		0.0500	98								
Silver	0.0484		0.0500	97								
Sodium	ND		5.00	110								
Thallium	0.0481		0.0500	96								
Vanadium	0.0497		0.0500	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	ICV 580-95332/7 09/13/2011 12:16				CCV 580-95332/9 09/13/2011 12:21				CCV 580-95332/21 09/13/2011 12:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00388		0.00400	97	0.00478		0.00500	96	0.00475		0.00500	95

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	CCV 580-95332/33 09/13/2011 13:03				CCV 580-95332/45 09/13/2011 15:09				CCV 580-95332/57 09/13/2011 15:30			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00481		0.00500	96	0.00498		0.00500	100	0.00491		0.00500	98

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	CCV 580-95332/67 09/13/2011 15:51				CCV 580-95332/72 09/13/2011 16:02				CCV 580-95332/77 09/13/2011 17:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00480		0.00500	96	0.00478		0.00500	96	0.00484		0.00500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	ICV 580-95485/7 09/15/2011 07:53				CCV 580-95485/9 09/15/2011 15:52				CCV 580-95485/15 09/15/2011 16:09			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00389		0.00400	97	0.00451		0.00500	90	0.00417		0.00500	83

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	CCV 580-95485/22 09/15/2011 16:22											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00485		0.00500	97								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Method: 6010B Instrument ID: TAC047

Lab Sample ID: CRI 580-95314/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00020

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Potassium	3.30	2.94	J	89	50-150
Calcium	1.10	1.22		111	50-150
Iron	0.200	0.195	J	97	50-150
Magnesium	1.10	1.20		109	50-150

Lab Sample ID: CRI 580-95389/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00020

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	1.10	1.18		107	50-150
Iron	0.200	0.112	J	56	50-150
Magnesium	1.10	1.17		107	50-150

Lab Sample ID: CRI 580-95537/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00020

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Potassium	3.30	2.96	J	90	50-150
Calcium	1.10	1.14		104	50-150
Iron	0.200	0.165	J	83	50-150
Magnesium	1.10	1.16		106	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Method: 6020 Instrument ID: SEA044

Lab Sample ID: CRI 580-95318/9 Concentration Units: mg/L

CRQL Check Standard Source: ICPMS_CAL_WOR_00007

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	0.00200	0.00200		100	50-150
Arsenic	0.00200	0.00206		103	50-150
Beryllium	0.00200	0.00194		97	50-150
Cadmium	0.00200	0.00200		100	50-150
Chromium	0.00200	0.00207		103	50-150
Copper	0.00200	0.00223		111	50-150
Lead	0.00200	0.00207		104	50-150
Manganese	0.00200	0.00212		106	50-150
Nickel	0.00200	0.00214	J	107	50-150
Selenium	0.00200	0.00222		111	50-150
Silver	0.00200	0.00207		104	50-150
Thallium	0.00200	0.00208		104	50-150
Aluminum	0.0200	ND		98	50-150
Zinc	0.00200	0.00215		108	50-150
Barium	0.00200	0.00208		104	50-150
Cobalt	0.00200	0.00213		106	50-150
Sodium	0.200	ND		102	50-150
Vanadium	0.00200	0.00207		104	50-150

Lab Sample ID: CRI 580-95377/9 Concentration Units: mg/L

CRQL Check Standard Source: ICPMS_CAL_WOR_00007

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Antimony	0.00200	0.00209		105	50-150
Arsenic	0.00200	0.00204		102	50-150
Beryllium	0.00200	0.00193		97	50-150
Cadmium	0.00200	0.00200		100	50-150
Chromium	0.00200	0.00210		105	50-150
Copper	0.00200	0.00218		109	50-150
Lead	0.00200	0.00208		104	50-150
Manganese	0.00200	0.00214		107	50-150
Nickel	0.00200	0.00207	J	104	50-150
Selenium	0.00200	0.00206		103	50-150
Silver	0.00200	0.00206		103	50-150
Thallium	0.00200	0.00204		102	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Method: 6020 Instrument ID: SEA044

Lab Sample ID: CRI 580-95377/9 Concentration Units: mg/L

CRQL Check Standard Source: ICPMS_CAL_WOR_00007

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Aluminum	0.0200	ND		99	50-150
Zinc	0.00200	0.00219		110	50-150
Barium	0.00200	0.00208		104	50-150
Cobalt	0.00200	0.00210		105	50-150
Sodium	0.200	ND		110	50-150
Vanadium	0.00200	0.00202		101	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-95314/7 09/13/2011 14:38		CCB 580-95314/12 09/13/2011 15:26		CCB 580-95314/24 09/13/2011 16:49		CCB 580-95314/35 09/13/2011 18:08	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	ND		ND		0.0496	J	0.0603	J
Iron	0.20	ND		ND		ND		ND	
Magnesium	1.1	ND		ND		ND		ND	
Potassium	3.3	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-95314/44 09/13/2011 19:15		CCB 580-95314/56 09/13/2011 20:36		CCB 580-95314/64 09/13/2011 21:33		CCB 580-95314/71 09/13/2011 22:25	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	ND		0.0986	J	0.0945	J	ND	
Iron	0.20	ND		ND		ND		0.0438	J
Magnesium	1.1	ND		ND		ND		ND	
Potassium	3.3	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-95389/7 09/14/2011 07:59		CCB 580-95389/12 09/14/2011 11:18		CCB 580-95389/20 09/14/2011 12:18		CCB 580-95389/28 09/14/2011 13:13	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	ND		ND		ND		ND	
Iron	0.20	ND		ND		ND		ND	
Magnesium	1.1	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-95537/7 09/16/2011 10:24		CCB 580-95537/12 09/16/2011 11:15		CCB 580-95537/25 09/16/2011 12:43			
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	ND		ND		ND			
Iron	0.20	ND		ND		0.0514	J		
Magnesium	1.1	ND		ND		ND			
Potassium	3.3	ND		ND		ND			

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-95318/8 09/13/2011 17:03		CCB 580-95318/13 09/13/2011 17:55		CCB 580-95318/25 09/13/2011 18:48		CCB 580-95318/37 09/13/2011 19:40	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND		ND		ND	
Antimony	0.00040	0.000102	J	ND		0.0000920	J	ND	
Arsenic	0.0010	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Manganese	0.0010	ND		ND		ND			
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		ND		0.000422	J	ND	
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-95318/40 09/13/2011 19:53		CCB 580-95318/52 09/13/2011 20:45		CCB 580-95318/64 09/13/2011 21:37			
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND		ND			
Antimony	0.00040	ND		0.0000864	J	ND			
Arsenic	0.0010	ND		ND		ND			
Barium	0.0012	ND		ND		ND			
Beryllium	0.00040	ND		ND		ND			
Cadmium	0.00040	ND		ND		ND			
Chromium	0.00040	ND		ND		ND			
Cobalt	0.00040	ND		ND		ND			
Copper	0.0010	ND		ND		ND			
Lead	0.00040	ND		ND		ND			
Manganese	0.0010	ND		ND		ND			
Nickel	0.0030	ND		ND		ND			
Selenium	0.0014	ND		ND		ND			
Silver	0.00040	ND		ND		ND			
Sodium	10	ND		ND		ND			
Thallium	0.0010	ND		0.000463	J	ND			
Vanadium	0.0020	ND		ND		ND			
Zinc	0.0014	ND		ND		ND			

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-95377/8 09/14/2011 09:40		CCB 580-95377/13 09/14/2011 10:36		CCB 580-95377/25 09/14/2011 11:28		CCB 580-95377/30 09/14/2011 11:50	
		Found	C	Found	C	Found	C	Found	C
Arsenic	0.0010	ND		ND		ND		ND	
Manganese	0.0010	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	
Aluminum	0.080	ND		ND		ND		ND	
Antimony	0.00040	0.0000827	J	ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		ND		ND		ND	
Vanadium	0.0020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-95332/8 09/13/2011 12:18		CCB 580-95332/10 09/13/2011 12:23		CCB 580-95332/22 09/13/2011 12:44		CCB 580-95332/34 09/13/2011 13:04	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-95332/46 09/13/2011 15:11		CCB 580-95332/58 09/13/2011 15:32		CCB 580-95332/68 09/13/2011 15:53		CCB 580-95332/73 09/13/2011 16:04	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-95332/78 09/13/2011 17:13							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND							

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-95485/8 09/15/2011 07:55		CCB 580-95485/10 09/15/2011 15:54		CCB 580-95485/16 09/15/2011 16:11		CCB 580-95485/23 09/15/2011 16:24	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95113/21-A

Instrument Code: TAC047 Batch No.: 95314

CAS No.	Analyte	Concentration	C	Q	Method
7440-09-7	Potassium	ND			6010B
7440-70-2	Calcium	ND			6010B
7439-89-6	Iron	ND			6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95118/16-A

Instrument Code: TAC047 Batch No.: 95314

CAS No.	Analyte	Concentration	C	Q	Method
7440-09-7	Potassium	ND			6010B
7440-70-2	Calcium	12.2	J		6010B
7439-89-6	Iron	2.41	J		6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95113/21-A

Instrument Code: TAC047 Batch No.: 95389

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	ND			6010B
7439-89-6	Iron	ND			6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95118/16-A

Instrument Code: TAC047 Batch No.: 95389

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	ND			6010B
7439-89-6	Iron	ND			6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95447/18-A

Instrument Code: TAC047 Batch No.: 95537

CAS No.	Analyte	Concentration	C	Q	Method
7440-09-7	Potassium	ND			6010B
7440-70-2	Calcium	ND			6010B
7439-89-6	Iron	3.58	J		6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95113/21-A

Instrument Code: SEA044 Batch No.: 95318

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	ND			6020
7440-38-2	Arsenic	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7439-96-5	Manganese	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-28-0	Thallium	ND			6020
7429-90-5	Aluminum	ND			6020
7440-66-6	Zinc	ND			6020
7440-39-3	Barium	0.0400	J		6020
7440-48-4	Cobalt	ND			6020
7440-23-5	Sodium	ND			6020
7440-62-2	Vanadium	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95118/16-A

Instrument Code: SEA044 Batch No.: 95318

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	ND			6020
7440-38-2	Arsenic	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7439-96-5	Manganese	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-28-0	Thallium	ND			6020
7429-90-5	Aluminum	ND			6020
7440-66-6	Zinc	ND			6020
7440-39-3	Barium	ND			6020
7440-48-4	Cobalt	ND			6020
7440-23-5	Sodium	ND			6020
7440-62-2	Vanadium	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95447/18-A

Instrument Code: SEA044 Batch No.: 95520

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	ND			6020
7440-38-2	Arsenic	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	0.442	J		6020
7439-96-5	Manganese	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-28-0	Thallium	ND			6020
7429-90-5	Aluminum	ND			6020
7440-66-6	Zinc	ND			6020
7440-39-3	Barium	ND			6020
7440-48-4	Cobalt	ND			6020
7440-23-5	Sodium	ND			6020
7440-62-2	Vanadium	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95102/17-A

Instrument Code: TAC103 Batch No.: 95332

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95264/21-A

Instrument Code: TAC103 Batch No.: 95332

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95460/6-A

Instrument Code: TAC103 Batch No.: 95485

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSA 580-95314/9 Instrument ID: TAC047

Lab File ID: 580-95113-118-094-245.asc ICS Source: ICP ICSA_00036

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500**	**476**	**95**
Iron	**200**	**198**	**99**
Magnesium	**500**	**490**	**98**
Potassium		**0.387**	
Aluminum	*500*	*495*	*99*
Antimony		*-0.0146*	
Arsenic		*-0.0033*	
Barium		*0.0028*	
Beryllium		*-0.0002*	
Boron		*0.0125*	
Cadmium		*-0.0064*	
Chromium		*0.0025*	
Cobalt		*0.0003*	
Copper		*0.0115*	
Lead		*-0.0003*	
Manganese		*0.0134*	
Molybdenum		*0.0003*	
Nickel		*0.0029*	
Selenium		*0.0147*	
Silver		*-0.0022*	
Sodium		*0.737*	
Thallium		*0.0036*	
Vanadium		*0.0028*	
Zinc		*-0.0170*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSAB 580-95314/10 Instrument ID: TAC047

Lab File ID: 580-95113-118-094-245.asc ICS Source: ICP ICSAB_00028

Concentration Units: mg/L

Analyte	True	Found	
	Solution AB	Solution AB	Percent Recovery
Calcium	**500**	**467**	**93**
Iron	**200**	**200**	**100**
Magnesium	**500**	**494**	**99**
Potassium	**200**	**200**	**100**
Aluminum	*500*	*489*	*98*
Antimony	*10.0*	*10.1*	*101*
Arsenic	*10.0*	*10.3*	*103*
Barium	*3.00*	*2.93*	*98*
Beryllium	*1.00*	*0.994*	*99*
Boron	*5.00*	*4.62*	*92*
Cadmium	*3.00*	*2.85*	*95*
Chromium	*3.00*	*2.87*	*96*
Cobalt	*3.00*	*2.80*	*93*
Copper	*3.00*	*3.12*	*104*
Lead	*10.0*	*9.99*	*100*
Manganese	*2.00*	*1.94*	*97*
Molybdenum	*3.00*	*2.89*	*96*
Nickel	*3.00*	*2.94*	*98*
Selenium	*5.00*	*5.10*	*102*
Silver	*3.00*	*2.97*	*99*
Sodium		*-0.179*	
Thallium	*10.0*	*9.59*	*96*
Vanadium	*3.00*	*2.95*	*98*
Zinc	*3.00*	*3.02*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSA 580-95389/9 Instrument ID: TAC047

Lab File ID: 580-95118-95113Fe.asc ICS Source: ICP ICSA_00036

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500**	**475**	**95**
Iron	**200**	**200**	**100**
Magnesium	**500**	**508**	**102**
Aluminum	*500*	*488*	*98*
Antimony		*-0.0155*	
Arsenic		*-0.0009*	
Barium		*0.0019*	
Beryllium		*0.0005*	
Cadmium		*-0.0069*	
Chromium		*0.0021*	
Cobalt		*0.0002*	
Copper		*0.0112*	
Lead		*-0.0024*	
Manganese		*0.0135*	
Molybdenum		*-0.0001*	
Nickel		*0.0025*	
Selenium		*0.0188*	
Silver		*-0.0026*	
Thallium		*0.0029*	
Tin		*0.0021*	
Vanadium		*0.0029*	
Zinc		*-0.0187*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSAB 580-95389/10 Instrument ID: TAC047

Lab File ID: 580-95118-95113Fe.asc ICS Source: ICP ICSAB_00028

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**500**	**484**	**97**
Iron	**200**	**201**	**100**
Magnesium	**500**	**499**	**100**
Aluminum	*500*	*489*	*98*
Antimony	*10.0*	*10.2*	*102*
Arsenic	*10.0*	*10.4*	*104*
Barium	*3.00*	*3.04*	*101*
Beryllium	*1.00*	*1.02*	*102*
Cadmium	*3.00*	*2.86*	*95*
Chromium	*3.00*	*2.89*	*96*
Cobalt	*3.00*	*2.82*	*94*
Copper	*3.00*	*3.14*	*105*
Lead	*10.0*	*10.2*	*102*
Manganese	*2.00*	*1.95*	*98*
Molybdenum	*3.00*	*2.91*	*97*
Nickel	*3.00*	*2.99*	*100*
Selenium	*5.00*	*5.17*	*103*
Silver	*3.00*	*3.14*	*105*
Thallium	*10.0*	*9.70*	*97*
Tin		*-0.0058*	
Vanadium	*3.00*	*2.97*	*99*
Zinc	*3.00*	*3.04*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSA 580-95537/9 Instrument ID: TAC047

Lab File ID: 580-95447T4.asc ICS Source: ICP ICSA_00036

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500**	**480**	**96**
Iron	**200**	**200**	**100**
Magnesium	**500**	**491**	**98**
Potassium		**0.189**	
Aluminum	*500*	*493*	*99*
Lead		*-0.0017*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSAB 580-95537/10 Instrument ID: TAC047

Lab File ID: 580-95447T4.asc ICS Source: ICP ICSAB_00028

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**500**	**483**	**97**
Iron	**200**	**203**	**102**
Magnesium	**500**	**499**	**100**
Potassium	**200**	**206**	**103**
Aluminum	*500*	*500*	*100*
Lead	*10.0*	*10.4*	*104*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSA 580-95318/10 Instrument ID: SEA044

Lab File ID: 012SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**20.0**	**18.5**	**93**
Antimony		**0.0002**	
Arsenic		**0.0000**	
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium		**0.0001**	
Chromium		**0.0012**	
Cobalt		**0.0000**	
Copper		**0.0001**	
Lead		**0.0000**	
Manganese		**0.0007**	
Nickel		**0.0003**	
Selenium		**0.0001**	
Silver		**0.0000**	
Sodium	**50.0**	**48.4**	**97**
Thallium		**0.0001**	
Vanadium		**-0.0001**	
Zinc		**0.0004**	
Calcium	*60.0*	*58.2*	*97*
Iron	*50.0*	*49.1*	*98*
Magnesium	*20.0*	*19.5*	*97*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.437*	*109*
Phosphorus	*20.0*	*20.0*	*100*
Potassium	*20.0*	*20.0*	*100*
Strontium		*-0.0007*	
Tin		*0.0001*	
Titanium	*0.400*	*0.401*	*100*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSAB 580-95318/11 Instrument ID: SEA044

Lab File ID: 013SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**20.0**	**18.6**	**93**
Antimony		**0.0002**	
Arsenic	**0.0200**	**0.0214**	**107**
Barium		**0.0002**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0213**	**106**
Chromium	**0.0400**	**0.0406**	**101**
Cobalt	**0.0400**	**0.0409**	**102**
Copper	**0.0400**	**0.0404**	**101**
Lead		**0.0001**	
Manganese	**0.0400**	**0.0396**	**99**
Nickel	**0.0400**	**0.0415**	**104**
Selenium	**0.0200**	**0.0207**	**104**
Silver	**0.0100**	**0.0104**	**104**
Sodium	**50.0**	**49.2**	**98**
Thallium		**0.0001**	
Vanadium	**0.0400**	**0.0400**	**100**
Zinc	**0.0200**	**0.0210**	**105**
Calcium	*60.0*	*57.5*	*96*
Iron	*50.0*	*49.2*	*98*
Magnesium	*20.0*	*19.5*	*97*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.440*	*110*
Phosphorus	*20.0*	*20.0*	*100*
Potassium	*20.0*	*20.0*	*100*
Strontium		*-0.0007*	
Tin		*0.0001*	
Titanium	*0.400*	*0.397*	*99*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSAB 580-95318/11 Instrument ID: SEA044

Lab File ID: 013SMPL.D ICS Source: ICPMS-ICSB_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**20.0**	**18.6**	**93**
Antimony		**0.0002**	
Arsenic	**0.0200**	**0.0214**	**107**
Barium		**0.0002**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0213**	**106**
Chromium	**0.0400**	**0.0406**	**101**
Cobalt	**0.0400**	**0.0409**	**102**
Copper	**0.0400**	**0.0404**	**101**
Lead		**0.0001**	
Manganese	**0.0400**	**0.0396**	**99**
Nickel	**0.0400**	**0.0415**	**104**
Selenium	**0.0200**	**0.0207**	**104**
Silver	**0.0100**	**0.0104**	**104**
Sodium	**50.0**	**49.2**	**98**
Thallium		**0.0001**	
Vanadium	**0.0400**	**0.0400**	**100**
Zinc	**0.0200**	**0.0210**	**105**
Calcium	*60.0*	*57.5*	*96*
Iron	*50.0*	*49.2*	*98*
Magnesium	*20.0*	*19.5*	*97*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.440*	*110*
Phosphorus	*20.0*	*20.0*	*100*
Potassium	*20.0*	*20.0*	*100*
Strontium		*-0.0007*	
Tin		*0.0001*	
Titanium	*0.400*	*0.397*	*99*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSA 580-95377/10 Instrument ID: SEA044

Lab File ID: 013SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Arsenic		**0.0000**	
Manganese		**0.0008**	
Zinc		**0.0011**	
Aluminum	*20.0*	*19.1*	*96*
Antimony		*0.0001*	
Barium		*0.0001*	
Beryllium		*0.0000*	
Cadmium		*0.0000*	
Calcium	*60.0*	*57.7*	*96*
Chromium		*0.0012*	
Cobalt		*0.0000*	
Copper		*0.0002*	
Iron	*50.0*	*49.3*	*99*
Lead		*0.0001*	
Magnesium	*20.0*	*20.2*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.446*	*111*
Nickel		*0.0004*	
Phosphorus	*20.0*	*20.4*	*102*
Potassium	*20.0*	*19.8*	*99*
Selenium		*0.0001*	
Silver		*0.0000*	
Sodium	*50.0*	*51.0*	*102*
Strontium		*-0.0007*	
Thallium		*0.0001*	
Tin		*0.0001*	
Titanium	*0.400*	*0.403*	*101*
Uranium		*0.0000*	
Vanadium		*-0.0003*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSAB 580-95377/11 Instrument ID: SEA044

Lab File ID: 014SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**0.0200**	**0.0212**	**106**
Manganese	**0.0400**	**0.0404**	**101**
Zinc	**0.0200**	**0.0216**	**108**
Aluminum	*20.0*	*19.2*	*96*
Antimony		*0.0002*	
Barium		*0.0001*	
Beryllium		*0.0000*	
Cadmium	*0.0200*	*0.0214*	*107*
Calcium	*60.0*	*58.5*	*97*
Chromium	*0.0400*	*0.0406*	*102*
Cobalt	*0.0400*	*0.0408*	*102*
Copper	*0.0400*	*0.0404*	*101*
Iron	*50.0*	*48.7*	*97*
Lead		*0.0002*	
Magnesium	*20.0*	*20.4*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.439*	*110*
Nickel	*0.0400*	*0.0409*	*102*
Phosphorus	*20.0*	*20.8*	*104*
Potassium	*20.0*	*19.6*	*98*
Selenium	*0.0200*	*0.0208*	*104*
Silver	*0.0100*	*0.0103*	*103*
Sodium	*50.0*	*51.3*	*103*
Strontium		*-0.0007*	
Thallium		*0.0000*	
Tin		*0.0001*	
Titanium	*0.400*	*0.396*	*99*
Uranium		*0.0000*	
Vanadium	*0.0400*	*0.0405*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Lab Sample ID: ICSAB 580-95377/11 Instrument ID: SEA044

Lab File ID: 014SMPL.D ICS Source: ICPMS-ICSB_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Arsenic	**0.0200**	**0.0212**	**106**
Manganese	**0.0400**	**0.0404**	**101**
Zinc	**0.0200**	**0.0216**	**108**
Aluminum	*20.0*	*19.2*	*96*
Antimony		*0.0002*	
Barium		*0.0001*	
Beryllium		*0.0000*	
Cadmium	*0.0200*	*0.0214*	*107*
Calcium	*60.0*	*58.5*	*97*
Chromium	*0.0400*	*0.0406*	*102*
Cobalt	*0.0400*	*0.0408*	*102*
Copper	*0.0400*	*0.0404*	*101*
Iron	*50.0*	*48.7*	*97*
Lead		*0.0002*	
Magnesium	*20.0*	*20.4*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.439*	*110*
Nickel	*0.0400*	*0.0409*	*102*
Phosphorus	*20.0*	*20.8*	*104*
Potassium	*20.0*	*19.6*	*98*
Selenium	*0.0200*	*0.0208*	*104*
Silver	*0.0100*	*0.0103*	*103*
Sodium	*50.0*	*51.3*	*103*
Strontium		*-0.0007*	
Thallium		*0.0000*	
Tin		*0.0001*	
Titanium	*0.400*	*0.396*	*99*
Uranium		*0.0000*	
Vanadium	*0.0400*	*0.0405*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: W-12 MS
Lab ID: 580-28356-1 MS
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 72.8

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	1670		290		1310	105	80-120		6010B
Calcium	2380		810		1310	120	80-120		6010B
Iron	31600		29000		1440	202	80-120	4	6010B
Magnesium	5390		3900		1310	116	80-120		6010B
Antimony	119		0.27		196	61	80-120	F	6020
Arsenic	343		12		261	127	80-120	F	6020
Beryllium	8.48		0.26		6.54	126	80-120	F	6020
Cadmium	8.50		0.22	J	6.54	127	80-120	F	6020
Chromium	75.6		29		26.1	176	80-120	F	6020
Copper	90.1		36		32.7	167	80-120	F	6020
Lead	96.0		9.1		65.4	133	80-120	F	6020
Manganese	319		190		65.4	202	80-120	F	6020
Nickel	114		21		65.4	143	80-120	F	6020
Selenium	327		0.72	J	261	125	80-120	F	6020
Silver	48.7		0.21	J	39.2	124	80-120	F	6020
Thallium	345		ND		261	132	80-120	F	6020
Aluminum	37000		28000		261	3262	80-120	4	6020
Zinc	136		39		65.4	149	80-120	F	6020
Barium	381		38		261	131	80-120	F	6020
Cobalt	91.1		7.0		65.4	129	80-120	F	6020
Sodium	1780		87	J	1310	130	80-120	F	6020
Vanadium	181		74		65.4	165	80-120	F	6020
Mercury	0.394		0.15		0.225	109	80-120		7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: W-14 MS
Lab ID: 580-28356-6 MS
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 94.5

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.286		0.13		0.158	102	80-120		7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: G-5 MS
Lab ID: 580-28356-11 MS
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 79.5

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	1550		350		1170	103	80-120		6010B
Calcium	1760		480		1170	110	80-120		6010B
Iron	14400		13000		1290	128	80-120	4	6010B
Magnesium	1960		1000		1170	78	80-120	F	6010B
Antimony	133		0.36		175	76	80-120	F	6020
Arsenic	272		9.6		234	112	80-120		6020
Beryllium	6.57		0.094	J	5.84	111	80-120		6020
Cadmium	6.79		0.18	J	5.84	113	80-120		6020
Chromium	36.4		9.7		23.4	114	80-120		6020
Copper	47.4		12		29.2	122	80-120	F	6020
Lead	76.8		9.0		58.4	116	80-120		6020
Manganese	161		140		58.4	38	80-120	F	6020
Nickel	72.3		5.2		58.4	115	80-120		6020
Selenium	256		0.33	J	234	109	80-120		6020
Silver	39.1		0.28		35.0	111	80-120		6020
Thallium	269		ND		234	115	80-120		6020
Aluminum	9240		7700		234	672	80-120	4	6020
Zinc	86.0		19		58.4	115	80-120		6020
Barium	285		21		234	113	80-120		6020
Cobalt	67.9		3.3		58.4	111	80-120		6020
Sodium	1630		140		1170	128	80-120	F	6020
Vanadium	109		43		58.4	113	80-120		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: Potomac 1 MS Lab ID: 580-28356-12 MS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids:

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	3240		3000		200	105	80-120	4	6010B
Calcium	765		490		200	139	80-120	F	6010B
Iron	70400		72000		220	-788	80-120	4	6010B
Magnesium	2270		2200		200	54	80-120	4	6010B
Antimony	13.7		3.6		30.0	34	80-120	F	6020
Arsenic	4800		4800		40.0	-118	80-120	4	6020
Beryllium	1.00		ND		1.00	100	80-120		6020
Cadmium	1.53		0.065	J	1.00	147	80-120	F	6020
Chromium	5.80		1.6		4.00	104	80-120		6020
Copper	419		410		5.00	231	80-120	4	6020
Lead	436		380		10.0	577	80-120	4	6020
Manganese	133		110		10.0	191	80-120	4	6020
Nickel	12.1		1.7		10.0	104	80-120		6020
Selenium	35.0		1.8		40.0	83	80-120		6020
Silver	36.1		28		6.00	132	80-120	4	6020
Thallium	39.0		ND		40.0	98	80-120		6020
Aluminum	3850		3300		40.0	1344	80-120	4	6020
Zinc	117		34		10.0	824	80-120	F	6020
Barium	137		93		40.0	108	80-120		6020
Cobalt	13.9		4.3		10.0	96	80-120		6020
Sodium	422		170	J	200	124	80-120	F	6020
Vanadium	40.8		29		10.0	118	80-120		6020
Mercury	0.584		0.50		0.0997	85	80-120	4	7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: W-12 MSD
Lab ID: 580-28356-1 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 72.8

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	1670		1350	102	80-120	0	20		6010B
Calcium	2380		1350	115	80-120	0	20		6010B
Iron	31400		1490	179	80-120	1	20	4	6010B
Magnesium	5450		1350	117	80-120	1	20		6010B
Antimony	109		203	53	80-120	9	20	F	6020
Arsenic	314		271	112	80-120	9	20		6020
Beryllium	7.92		6.77	113	80-120	7	20		6020
Cadmium	7.80		6.77	112	80-120	9	20		6020
Chromium	64.3		27.1	128	80-120	16	20	F	6020
Copper	81.9		33.9	137	80-120	10	20	F	6020
Lead	88.1		67.7	117	80-120	9	20		6020
Manganese	300		67.7	167	80-120	6	20	F	6020
Nickel	104		67.7	122	80-120	10	20	F	6020
Selenium	303		271	112	80-120	8	20		6020
Silver	44.9		40.6	110	80-120	8	20		6020
Thallium	316		271	117	80-120	9	20		6020
Aluminum	32200		271	1395	80-120	14	20	4	6020
Zinc	127		67.7	130	80-120	7	20	F	6020
Barium	344		271	113	80-120	10	20		6020
Cobalt	83.6		67.7	113	80-120	9	20		6020
Sodium	1610		1350	113	80-120	10	20		6020
Vanadium	159		67.7	125	80-120	13	20	F	6020
Mercury	0.349		0.192	105	80-120	12	20		7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: W-14 MSD
Lab ID: 580-28356-6 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 94.5

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.290		0.164	100	80-120	1	20		7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: G-5 MSD
Lab ID: 580-28356-11 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 79.5

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	1460		1090	102	80-120	6	20		6010B
Calcium	1720		1090	113	80-120	3	20		6010B
Iron	14700		1200	157	80-120	2	20	4	6010B
Magnesium	1910		1090	79	80-120	3	20	F	6010B
Antimony	142		164	86	80-120	6	20		6020
Arsenic	288		219	127	80-120	6	20	F	6020
Beryllium	7.09		5.47	128	80-120	8	20	F	6020
Cadmium	7.13		5.47	127	80-120	5	20	F	6020
Chromium	38.1		21.9	130	80-120	5	20	F	6020
Copper	52.0		27.3	147	80-120	9	20	F	6020
Lead	84.2		54.7	137	80-120	9	20	F	6020
Manganese	185		54.7	84	80-120	14	20		6020
Nickel	75.6		54.7	129	80-120	5	20	F	6020
Selenium	275		219	126	80-120	7	20	F	6020
Silver	41.6		32.8	126	80-120	6	20	F	6020
Thallium	290		219	133	80-120	8	20	F	6020
Aluminum	9900		219	1022	80-120	7	20	4	6020
Zinc	120		54.7	186	80-120	33	20	F	6020
Barium	301		219	128	80-120	5	20	F	6020
Cobalt	71.7		54.7	125	80-120	5	20	F	6020
Sodium	1780		1090	150	80-120	9	20	F	6020
Vanadium	119		54.7	139	80-120	9	20	F	6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: Potomac 1 MSD Lab ID: 580-28356-12 MSD

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids:

Analyte	(SDR) C		Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	3740		198	357	80-120	14	20	4	6010B
Calcium	796		198	156	80-120	4	20	F	6010B
Iron	79200		218	3269	80-120	12	20	4	6010B
Magnesium	2570		198	208	80-120	13	20	4	6010B
Antimony	14.9		29.8	38	80-120	8	20	F	6020
Arsenic	5450		39.7	1506	80-120	13	20	4	6020
Beryllium	1.05		0.992	106	80-120	5	20		6020
Cadmium	1.11		0.992	105	80-120	32	20	F	6020
Chromium	5.78		3.97	105	80-120	0	20		6020
Copper	421		4.96	261	80-120	0	20	4	6020
Lead	457		9.92	787	80-120	5	20	4	6020
Manganese	124		9.92	103	80-120	7	20	4	6020
Nickel	12.2		9.92	105	80-120	1	20		6020
Selenium	37.0		39.7	89	80-120	5	20		6020
Silver	38.6		5.95	175	80-120	7	20	4	6020
Thallium	39.9		39.7	100	80-120	2	20		6020
Aluminum	3970		39.7	1640	80-120	3	20	4	6020
Zinc	46.9		9.92	128	80-120	85	20	F	6020
Barium	142		39.7	123	80-120	4	20	F	6020
Cobalt	15.2		9.92	110	80-120	9	20		6020
Sodium	437		198	132	80-120	4	20	F	6020
Vanadium	41.4		9.92	126	80-120	2	20	F	6020
Mercury	0.643		0.100	143	80-120	10	20	4	7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: W-12 PDS | Lab ID: 580-28356-1 PDS

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	1370		290		1250	86			6010B
Calcium	1860		810		1250	83			6010B
Iron	28700		29000		1370	NC	75-125		6010B
Magnesium	4810		3900		1250	76	75-125		6010B
Antimony	111		0.27		187	59	75-125	W	6020
Arsenic	318		12		250	123	75-125		6020
Beryllium	7.97		0.26		6.24	124	75-125		6020
Cadmium	7.94		0.22	J	6.24	124	75-125		6020
Chromium	69.6		29		25.0	161	75-125	W	6020
Copper	83.5		36		31.2	153	75-125	W	6020
Lead	89.9		9.1		62.4	129	75-125	W	6020
Manganese	298		190		62.4	177	75-125	W	6020
Nickel	106		21		62.4	136	75-125	W	6020
Selenium	303		0.72	J	250	121	75-125		6020
Silver	45.7		0.21	J	37.5	121	75-125		6020
Thallium	323		ND		250	129	75-125	W	6020
Aluminum	34100		28000		250	NC	75-125		6020
Zinc	125		39		62.4	138	75-125	W	6020
Barium	353		38		250	126	75-125	W	6020
Cobalt	84.4		7.0		62.4	124	75-125		6020
Sodium	1650		87	J	1250	125	75-125		6020
Vanadium	169		74		62.4	152	75-125	W	6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: G-5 PDS | Lab ID: 580-28356-11 PDS

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	1300		350		1110	86			6010B
Calcium	1400		480		1110	84			6010B
Iron	13300		13000		1220	NC	75-125		6010B
Magnesium	1950		1000		1110	81	75-125		6010B
Antimony	122		0.36		166	73	75-125	W	6020
Arsenic	251		9.6		221	109	75-125		6020
Beryllium	6.14		0.094	J	5.53	109	75-125		6020
Cadmium	6.27		0.18	J	5.53	110	75-125		6020
Chromium	33.5		9.7		22.1	108	75-125		6020
Copper	44.0		12		27.6	116	75-125		6020
Lead	70.5		9.0		55.3	111	75-125		6020
Manganese	149		140		55.3	18	75-125	W	6020
Nickel	66.0		5.2		55.3	110	75-125		6020
Selenium	239		0.33	J	221	108	75-125		6020
Silver	36.1		0.28		33.2	108	75-125		6020
Thallium	249		ND		221	113	75-125		6020
Aluminum	8610		7700		221	NC	75-125		6020
Zinc	79.8		19		55.3	110	75-125		6020
Barium	262		21		221	109	75-125		6020
Cobalt	62.6		3.3		55.3	107	75-125		6020
Sodium	1520		140		1110	125	75-125		6020
Vanadium	101		43		55.3	106	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: Potomac 1 PDS Lab ID: 580-28356-12 PDS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	4660		3000		1990	82			6010B
Calcium	2470		490		1990	100			6010B
Iron	64400		72000		2190	NC	75-125		6010B
Magnesium	3760		2200		1990	81	75-125		6010B
Antimony	14.3		3.6		29.8	36	75-125	W	6020
Arsenic	4930		4800		39.8	NC	75-125		6020
Beryllium	1.07		ND		0.994	107	75-125		6020
Cadmium	1.64		0.065	J	0.994	158	75-125	W	6020
Chromium	6.13		1.6		3.98	113	75-125		6020
Copper	428		410		4.97	NC	75-125		6020
Lead	446		380		9.94	NC	75-125		6020
Manganese	138		110		9.94	NC	75-125		6020
Nickel	12.8		1.7		9.94	111	75-125		6020
Selenium	36.7		1.8		39.8	88	75-125		6020
Silver	37.1		28		5.96	149	75-125	W	6020
Thallium	42.5		ND		39.8	107	75-125		6020
Aluminum	4020		3300		39.8	NC	75-125		6020
Zinc	122		34		9.94	882	75-125	W	6020
Barium	139		93		39.8	116	75-125		6020
Cobalt	14.5		4.3		9.94	103	75-125		6020
Sodium	442		170	J	199	135	75-125	W	6020
Vanadium	42.4		29		9.94	135	75-125	W	6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: W-12 DU | Lab ID: 580-28356-1 DU

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG No.:

% Solids for Sample: 72.8 | % Solids for Duplicate: 72.8

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Potassium	220	290		332		13		6010B
Calcium	74	810		912		11		6010B
Iron	13	29000		29300		2		6010B
Magnesium	74	3900		4460		14		6010B
Antimony	0.27	0.27		0.301		12		6020
Arsenic	0.67	12		14.1		18		6020
Beryllium	0.27	0.26		0.334		25		6020
Cadmium	0.27	0.22	J	0.279		23		6020
Chromium	0.27	29		35.4		18		6020
Copper	0.27	36		42.4		17		6020
Lead	0.27	9.1		10.7		17		6020
Manganese	0.67	190		221		16		6020
Nickel	0.27	21		25.2		18		6020
Selenium	0.94	0.72	J	0.908	J	24		6020
Silver	0.27	0.21	J	0.257	J	21		6020
Thallium	0.67	ND		ND		NC		6020
Aluminum	40	28000		33400		16		6020
Zinc	0.94	39		46.6		18		6020
Barium	0.27	38		44.5		16		6020
Cobalt	0.27	7.0		8.28		17		6020
Sodium	130	87	J	101	J	15		6020
Vanadium	0.94	74		90.1		20		6020
Mercury	0.020	0.15		0.143		4		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: W-14 DU | Lab ID: 580-28356-6 DU

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG No.:

% Solids for Sample: 94.5 | % Solids for Duplicate: 94.5

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.016	0.13		0.117		7		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: G-5 DU | Lab ID: 580-28356-11 DU

Lab Name: TestAmerica Seattle | Job No.: 580-28356-1

SDG No.:

% Solids for Sample: 79.5 | % Solids for Duplicate: 79.5

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Potassium	180	350		360		3		6010B
Calcium	61	480		501		5		6010B
Iron	11	13000		13500		5		6010B
Magnesium	61	1000		861		20		6010B
Antimony	0.22	0.36		0.391		8		6020
Arsenic	0.56	9.6		10.2		6		6020
Beryllium	0.22	0.094	J	0.0797	J	16		6020
Cadmium	0.22	0.18	J	0.184	J	1		6020
Chromium	0.22	9.7		10.2		5		6020
Copper	0.22	12		12.4		5		6020
Lead	0.22	9.0		9.38		4		6020
Manganese	0.56	140		144		3		6020
Nickel	0.22	5.2		5.56		7		6020
Selenium	0.78	0.33	J	0.359	J	9		6020
Silver	0.22	0.28		0.283		2		6020
Thallium	0.56	ND		ND		NC		6020
Aluminum	33	7700		7990		4		6020
Zinc	0.78	19		20.1		6		6020
Barium	0.22	21		22.5		6		6020
Cobalt	0.22	3.3		3.48		4		6020
Sodium	110	140		145		5		6020
Vanadium	0.78	43		44.8		4		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95113/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	1000	956		96	80	120		6010B
Calcium	1000	965		96	80	120		6010B
Iron	1100	1070		97	80	120		6010B
Magnesium	1000	955		95	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95113/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	975		1000	97	80-120	2	20		6010B
Calcium	979		1000	98	80-120	1	20		6010B
Iron	1090		1100	99	80-120	2	20		6010B
Magnesium	952		1000	95	80-120	0	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95113/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	2770	2560		92	65.0	135.0		6010B
Calcium	6700	6790		101	75.4	124.0		6010B
Iron	13100	13600		104	41.6	159.1		6010B
Magnesium	2980	2810		94	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95118/17-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	1000	991		99	80	120		6010B
Calcium	1000	992		99	80	120		6010B
Iron	1100	1100		100	80	120		6010B
Magnesium	1000	971		97	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95118/18-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	1000		1000	100	80-120	1	20		6010B
Calcium	1000		1000	100	80-120	1	20		6010B
Iron	1080		1100	98	80-120	2	20		6010B
Magnesium	954		1000	95	80-120	2	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95118/19-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	2770	2740		99	65.0	135.0		6010B
Calcium	6700	6920		103	75.4	124.0		6010B
Iron	13100	13900		106	41.6	159.1		6010B
Magnesium	2980	2850		95	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95447/19-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	1000	958		96	80	120		6010B
Calcium	1000	987		99	80	120		6010B
Iron	1100	1130		103	80	120		6010B
Magnesium	1000	976		98	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95447/20-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	995		1000	100	80-120	4	20		6010B
Calcium	1020		1000	102	80-120	3	20		6010B
Iron	1130		1100	103	80-120	0	20		6010B
Magnesium	984		1000	98	80-120	1	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95447/21-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	2770	1950		70	65.0	135.0		6010B
Calcium	6700	6740		101	75.4	124.0		6010B
Iron	13100	9130		70	41.6	159.1		6010B
Magnesium	2980	2360		79	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95118/17-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	150	146		97	80	120		6020
Arsenic	200	201		101	80	120		6020
Beryllium	5.00	5.23		105	80	120		6020
Cadmium	5.00	4.65		93	80	120		6020
Chromium	20.0	20.4		102	80	120		6020
Copper	25.0	25.4		101	80	120		6020
Lead	50.0	49.6		99	80	120		6020
Manganese	50.0	51.3		103	80	120		6020
Nickel	50.0	49.5		99	80	120		6020
Selenium	200	197		98	80	120		6020
Silver	30.0	30.6		102	80	120		6020
Thallium	200	195		97	80	120		6020
Aluminum	200	216		108	80	120		6020
Zinc	50.0	52.8		106	80	120		6020
Barium	200	200		100	80	120		6020
Cobalt	50.0	48.5		97	80	120		6020
Sodium	1000	1150		115	80	120		6020
Vanadium	50.0	49.8		100	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95118/18-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	146		150	97	80-120	0	20		6020
Arsenic	202		200	101	80-120	0	20		6020
Beryllium	5.00		5.00	100	80-120	5	20		6020
Cadmium	5.18		5.00	104	80-120	11	20		6020
Chromium	20.1		20.0	101	80-120	1	20		6020
Copper	25.6		25.0	102	80-120	1	20		6020
Lead	50.0		50.0	100	80-120	1	20		6020
Manganese	51.0		50.0	102	80-120	1	20		6020
Nickel	49.7		50.0	99	80-120	0	20		6020
Selenium	200		200	100	80-120	1	20		6020
Silver	30.5		30.0	102	80-120	0	20		6020
Thallium	200		200	100	80-120	2	20		6020
Aluminum	216		200	108	80-120	0	20		6020
Zinc	51.9		50.0	104	80-120	2	20		6020
Barium	197		200	98	80-120	1	20		6020
Cobalt	48.7		50.0	97	80-120	0	20		6020
Sodium	1150		1000	115	80-120	0	20		6020
Vanadium	49.8		50.0	100	80-120	0	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95118/19-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	121	227		188	21.0	251.6		6020
Arsenic	109	114		105	71.1	128.9		6020
Beryllium	92.1	94.7		103	75.3	124.7		6020
Cadmium	110	117		106	73.2	126.8		6020
Chromium	93.4	97.0		104	69.9	129.8		6020
Copper	84.7	75.5		89	73.2	126.8		6020
Lead	152	171		113	75.3	125.1		6020
Manganese	443	482		109	75.8	124.5		6020
Nickel	109	115		105	73.8	126.7		6020
Selenium	207	222		107	67.1	132.7		6020
Silver	51.9	53.3		103	65.6	134.4		6020
Thallium	171	185		108	68.8	131.2		6020
Aluminum	9780	8550		87	46.0	153.8		6020
Zinc	299	308		103	72.2	127.8		6020
Barium	325	340		104	74.7	125.5		6020
Cobalt	133	141		106	74.5	126.1		6020
Sodium	724	859		119	52.0	148.0		6020
Vanadium	110	115		105	64.5	135.3		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95113/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	150	144		96	80	120		6020
Arsenic	200	200		100	80	120		6020
Beryllium	5.00	4.79		96	80	120		6020
Cadmium	5.00	5.06		101	80	120		6020
Chromium	20.0	20.0		100	80	120		6020
Copper	25.0	25.4		101	80	120		6020
Lead	50.0	49.5		99	80	120		6020
Manganese	50.0	51.1		102	80	120		6020
Nickel	50.0	49.8		100	80	120		6020
Selenium	200	196		98	80	120		6020
Silver	30.0	30.0		100	80	120		6020
Thallium	200	194		97	80	120		6020
Aluminum	200	208		104	80	120		6020
Zinc	50.0	53.9		108	80	120		6020
Barium	200	197		98	80	120		6020
Cobalt	50.0	48.5		97	80	120		6020
Sodium	1000	1060		106	80	120		6020
Vanadium	50.0	49.3		99	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95113/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	143		150	95	80-120	1	20		6020
Arsenic	201		200	100	80-120	0	20		6020
Beryllium	4.87		5.00	97	80-120	1	20		6020
Cadmium	5.05		5.00	101	80-120	0	20		6020
Chromium	20.3		20.0	101	80-120	2	20		6020
Copper	25.9		25.0	103	80-120	2	20		6020
Lead	49.8		50.0	100	80-120	1	20		6020
Manganese	50.8		50.0	102	80-120	1	20		6020
Nickel	50.5		50.0	101	80-120	1	20		6020
Selenium	198		200	99	80-120	1	20		6020
Silver	30.3		30.0	101	80-120	1	20		6020
Thallium	196		200	98	80-120	1	20		6020
Aluminum	208		200	104	80-120	0	20		6020
Zinc	51.1		50.0	102	80-120	5	20		6020
Barium	197		200	98	80-120	0	20		6020
Cobalt	49.2		50.0	98	80-120	2	20		6020
Sodium	1060		1000	106	80-120	1	20		6020
Vanadium	49.4		50.0	99	80-120	0	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95113/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	121	224		185	21.0	251.6		6020
Arsenic	109	115		105	71.1	128.9		6020
Beryllium	92.1	91.0		99	75.3	124.7		6020
Cadmium	110	116		105	73.2	126.8		6020
Chromium	93.4	96.7		104	69.9	129.8		6020
Copper	84.7	76.0		90	73.2	126.8		6020
Lead	152	167		110	75.3	125.1		6020
Manganese	443	483		109	75.8	124.5		6020
Nickel	109	117		107	73.8	126.7		6020
Selenium	207	221		107	67.1	132.7		6020
Silver	51.9	52.8		102	65.6	134.4		6020
Thallium	171	178		104	68.8	131.2		6020
Aluminum	9780	8050		82	46.0	153.8		6020
Zinc	299	309		103	72.2	127.8		6020
Barium	325	334		103	74.7	125.5		6020
Cobalt	133	144		108	74.5	126.1		6020
Sodium	724	786		109	52.0	148.0		6020
Vanadium	110	114		104	64.5	135.3		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95447/19-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	150	146		97	80	120		6020
Arsenic	200	224		112	80	120		6020
Beryllium	5.00	5.13		103	80	120		6020
Cadmium	5.00	4.87		97	80	120		6020
Chromium	20.0	20.3		102	80	120		6020
Copper	25.0	27.7		111	80	120		6020
Lead	50.0	49.0		98	80	120		6020
Manganese	50.0	52.9		106	80	120		6020
Nickel	50.0	52.7		105	80	120		6020
Selenium	200	221		110	80	120		6020
Silver	30.0	29.3		98	80	120		6020
Thallium	200	204		102	80	120		6020
Aluminum	200	214		107	80	120		6020
Zinc	50.0	52.7		105	80	120		6020
Barium	200	192		96	80	120		6020
Cobalt	50.0	51.4		103	80	120		6020
Sodium	1000	1140		114	80	120		6020
Vanadium	50.0	49.1		98	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95447/20-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	144		150	96	80-120	1	20		6020
Arsenic	219		200	109	80-120	2	20		6020
Beryllium	5.18		5.00	104	80-120	1	20		6020
Cadmium	4.97		5.00	99	80-120	2	20		6020
Chromium	20.5		20.0	102	80-120	1	20		6020
Copper	27.3		25.0	109	80-120	2	20		6020
Lead	47.9		50.0	96	80-120	2	20		6020
Manganese	52.5		50.0	105	80-120	1	20		6020
Nickel	52.7		50.0	105	80-120	0	20		6020
Selenium	216		200	108	80-120	2	20		6020
Silver	29.4		30.0	98	80-120	0	20		6020
Thallium	202		200	101	80-120	1	20		6020
Aluminum	216		200	108	80-120	1	20		6020
Zinc	51.7		50.0	103	80-120	2	20		6020
Barium	190		200	95	80-120	1	20		6020
Cobalt	50.9		50.0	102	80-120	1	20		6020
Sodium	1150		1000	115	80-120	1	20		6020
Vanadium	49.2		50.0	98	80-120	0	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95447/21-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	121	222		184	21.0	251.6		6020
Arsenic	109	119		109	71.1	128.9		6020
Beryllium	92.1	93.1		101	75.3	124.7		6020
Cadmium	110	114		104	73.2	126.8		6020
Chromium	93.4	96.1		103	69.9	129.8		6020
Copper	84.7	78.0		92	73.2	126.8		6020
Lead	152	166		109	75.3	125.1		6020
Manganese	443	499		113	75.8	124.5		6020
Nickel	109	117		108	73.8	126.7		6020
Selenium	207	234		113	67.1	132.7		6020
Silver	51.9	50.2		97	65.6	134.4		6020
Thallium	171	182		106	68.8	131.2		6020
Aluminum	9780	8440		86	46.0	153.8		6020
Zinc	299	307		103	72.2	127.8		6020
Barium	325	317		98	74.7	125.5		6020
Cobalt	133	143		108	74.5	126.1		6020
Sodium	724	836		115	52.0	148.0		6020
Vanadium	110	112		102	64.5	135.3		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95102/18-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.158		95	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95102/19-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.152		0.167	91	80-120	4	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95102/20-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	19.3		119	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95264/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.158		95	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95264/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.156		0.167	93	80-120	2	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95264/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	20.1		123	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95460/7-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.100	0.0942		94	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95460/8-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.0920		0.100	92	80-120	2	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95460/9-A

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	15.6		96	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28356-1

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28356-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Potassium	290		375	J	NC		6010B
Calcium	810		838		2.9		6010B
Iron	29000		29400		2.4		6010B
Magnesium	3900		4030		4.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28356-11

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28356-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Potassium	350		438	J	NC		6010B
Calcium	480		505		6.0		6010B
Iron	13000		12800		0.15		6010B
Magnesium	1000		1100		4.4		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28356-12

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28356-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Potassium	ND		2420		11		6010B
Calcium	ND		341	J	NC		6010B
Iron	58000		61300		6.5		6010B
Magnesium	2000	J	2060		2.8		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28356-1

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28356-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.27		0.310	J	NC		6020
Arsenic	12		11.7		1.4		6020
Beryllium	0.26		0.262	J	NC		6020
Cadmium	0.22	J	0.258	J	NC		6020
Chromium	29		29.6		0.59		6020
Copper	36		36.7		3.3		6020
Lead	9.1		9.27		2.3		6020
Manganese	190		189		0.67		6020
Nickel	21		21.9		3.3		6020
Selenium	0.72	J	ND		NC		6020
Silver	0.21	J	0.201	J	NC		6020
Thallium	ND		ND		NC		6020
Aluminum	28000		27000		5.0		6020
Zinc	39		39.0		NC		6020
Barium	38		37.3		1.1		6020
Cobalt	7.0		7.04		0.71		6020
Sodium	87	J	ND		NC		6020
Vanadium	74		73.7		0.25		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28356-11

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28356-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	0.36		0.398	J	NC		6020
Arsenic	9.6		10.5		NC		6020
Beryllium	0.094	J	ND		NC		6020
Cadmium	0.18	J	0.236	J	NC		6020
Chromium	9.7		10.3		6.7		6020
Copper	12		13.6		16	V	6020
Lead	9.0		10.0		12	V	6020
Manganese	140		148		6.7		6020
Nickel	5.2		5.64		NC		6020
Selenium	0.33	J	ND		NC		6020
Silver	0.28		0.270	J	NC		6020
Thallium	ND		ND		NC		6020
Aluminum	7700		8060		5.1		6020
Zinc	19		20.8		NC		6020
Barium	21		22.5		6.0		6020
Cobalt	3.3		3.70		11	V	6020
Sodium	140		ND		NC		6020
Vanadium	43		45.2		5.2		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28356-12

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28356-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Antimony	9.2	J	3.56		61	V	6020
Arsenic	4900		5020		2.4		6020
Beryllium	ND		ND		NC		6020
Cadmium	ND		ND		NC		6020
Chromium	ND		1.59	J	NC		6020
Copper	430		416		3.7		6020
Lead	450		436		3.5		6020
Manganese	120		116		4.3		6020
Nickel	ND		ND		NC		6020
Selenium	ND		ND		NC		6020
Silver	29	J	28.3		1.2		6020
Thallium	ND		ND		98	V	6020
Aluminum	3300	J	3410		3.2		6020
Zinc	ND		34.7		NC		6020
Barium	95		92.0		2.7		6020
Cobalt	4.9	J	4.51		7.2		6020
Sodium	ND		ND		NC		6020
Vanadium	ND		28.3		NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B MDL Date: 08/12/2011 13:02

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Calcium		55	3.1
Iron		10	0.61
Magnesium		55	3.2
Potassium		165	16

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B XMDL Date: 11/02/2010 08:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Calcium		1.1	0.028
Iron		0.2	0.032
Magnesium		1.1	0.23
Potassium		3.3	0.41

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B MDL Date: 08/12/2011 13:02

Prep Method: 3050B

Leach Method: Increm, Prep

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Calcium		55	3.1
Iron		10	0.61
Magnesium		55	3.2
Potassium		165	16

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B XMDL Date: 11/02/2010 08:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Calcium		1.1	0.028
Iron		0.2	0.032
Magnesium		1.1	0.23
Potassium		3.3	0.41

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 MDL Date: 08/17/2011 07:36

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Aluminum		30	3
Antimony		0.2	0.042
Arsenic		0.5	0.18
Barium		0.2	0.03
Beryllium		0.2	0.022
Cadmium		0.2	0.008
Chromium		0.2	0.113
Cobalt		0.2	0.019
Copper		0.2	0.098
Lead		0.2	0.013
Manganese		0.5	0.17
Nickel		0.2	0.203
Selenium		0.7	0.202
Silver		0.2	0.012
Sodium		100	39.2
Thallium		0.5	0.13
Vanadium		0.7	0.473
Zinc		0.7	1.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 XMDL Date: 06/24/2011 10:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Aluminum		0.08	0.06
Antimony		0.0004	0.00008
Arsenic		0.001	0.00075
Barium		0.0012	0.000054
Beryllium		0.0004	0.0001
Cadmium		0.0004	0.000028
Chromium		0.0004	0.00027
Cobalt		0.0004	0.00004
Copper		0.001	0.000196
Lead		0.0004	0.00004
Manganese		0.001	0.0004
Nickel		0.003	0.0004
Selenium		0.0014	0.00071
Silver		0.0004	0.00003
Sodium		10	10
Thallium		0.001	0.00028
Vanadium		0.002	0.000975
Zinc		0.0014	0.0007

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 MDL Date: 08/17/2011 07:36

Prep Method: 3050B

Leach Method: Increm, Prep

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Aluminum		30	3
Antimony		0.2	0.042
Arsenic		0.5	0.18
Barium		0.2	0.03
Beryllium		0.2	0.022
Cadmium		0.2	0.008
Chromium		0.2	0.113
Cobalt		0.2	0.019
Copper		0.2	0.098
Lead		0.2	0.013
Manganese		0.5	0.17
Nickel		0.2	0.203
Selenium		0.7	0.202
Silver		0.2	0.012
Sodium		100	39.2
Thallium		0.5	0.13
Vanadium		0.7	0.473
Zinc		0.7	1.12

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A MDL Date: 06/06/2011 08:38

Prep Method: 7471A

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury		0.02	0.0063

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A XMDL Date: 10/02/2008 10:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (ug/L)
Mercury		0.0002	0.000041

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A MDL Date: 06/06/2011 08:38

Prep Method: 7471A

Leach Method: Increm, Prep

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury		0.02	0.0063

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A XMDL Date: 10/02/2008 10:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (ug/L)
Mercury		0.0002	0.000041

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-28356-1

SDG No.:

Instrument ID: TAC047 Date: 12/03/2010 07:34

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Potassium		500	6010B
Calcium		1000	6010B
Iron		250	6010B
Magnesium		1000	6010B

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-28356-1

SDG No.:

Instrument ID: SEA044 Date: 03/01/2010 06:51

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Antimony		5	6020
Arsenic		5	6020
Beryllium		5	6020
Cadmium		5	6020
Chromium		5	6020
Copper		5	6020
Lead		5	6020
Manganese		5	6020
Nickel		5	6020
Selenium		5	6020
Silver		5	6020
Thallium		5	6020
Aluminum		5	6020
Zinc		5	6020
Barium		5	6020
Cobalt		5	6020
Sodium		5	6020
Vanadium		5	6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-1	09/12/2011 08:45	95113	1.1006		50
580-28356-1 DU	09/12/2011 08:45	95113	1.0219		50
580-28356-1 MS	09/12/2011 08:45	95113	1.0513		50
580-28356-1 MSD	09/12/2011 08:45	95113	1.0143		50
580-28356-2	09/12/2011 08:45	95113	1.0265		50
580-28356-3	09/12/2011 08:45	95113	1.0561		50
580-28356-4	09/12/2011 08:45	95113	1.1543		50
580-28356-5	09/12/2011 08:45	95113	1.1184		50
580-28356-6	09/12/2011 08:45	95113	1.1103		50
580-28356-7	09/12/2011 08:45	95113	1.0731		50
580-28356-8	09/12/2011 08:45	95113	1.1750		50
580-28356-9	09/12/2011 08:45	95113	1.1122		50
580-28356-10	09/12/2011 08:45	95113	1.0181		50
MB 580-95113/21-A	09/12/2011 08:45	95113	1.0		50
LCS 580-95113/22-A	09/12/2011 08:45	95113	1.0		50
LCSD 580-95113/23-A	09/12/2011 08:45	95113	1.0		50
LCSSRM 580-95113/24-A	09/12/2011 08:45	95113	0.5024		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-11	09/12/2011 09:00	95118	1.1378		50
580-28356-11 DU	09/12/2011 09:00	95118	1.1270		50
580-28356-11 MS	09/12/2011 09:00	95118	1.0764		50
580-28356-11 MSD	09/12/2011 09:00	95118	1.1495		50
580-28356-13	09/12/2011 09:00	95118	1.0643		50
580-28356-14	09/12/2011 09:00	95118	1.0361		50
580-28356-15	09/12/2011 09:00	95118	1.2000		50
580-28356-16	09/12/2011 09:00	95118	1.0606		50
580-28356-17	09/12/2011 09:00	95118	1.1931		50
580-28356-18	09/12/2011 09:00	95118	1.0245		50
580-28356-19	09/12/2011 09:00	95118	1.0610		50
580-28356-20	09/12/2011 09:00	95118	1.1826		50
580-28356-21	09/12/2011 09:00	95118	1.0381		50
580-28356-22	09/12/2011 09:00	95118	1.1293		50
580-28356-23	09/12/2011 09:00	95118	1.0109		50
MB 580-95118/16-A	09/12/2011 09:00	95118	1.0		50
LCS 580-95118/17-A	09/12/2011 09:00	95118	1.0		50
LCSD 580-95118/18-A	09/12/2011 09:00	95118	1.0		50
LCSSRM 580-95118/19-A	09/12/2011 09:00	95118	0.5025		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-12	09/15/2011 13:11	95447	10.0625		100
580-28356-12 MS	09/15/2011 13:11	95447	9.9949		100
580-28356-12 MSD	09/15/2011 13:11	95447	10.0803		100
MB 580-95447/18-A	09/15/2011 13:13	95447	2.0		100
LCS 580-95447/19-A	09/15/2011 13:26	95447	2.0		100
LCSD 580-95447/20-A	09/15/2011 13:26	95447	2.0		100
LCSSRM 580-95447/21-A	09/15/2011 13:26	95447	1.0096		100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-1	09/12/2011 08:45	95113	1.1006		50
580-28356-1 DU	09/12/2011 08:45	95113	1.0219		50
580-28356-1 MS	09/12/2011 08:45	95113	1.0513		50
580-28356-1 MSD	09/12/2011 08:45	95113	1.0143		50
580-28356-2	09/12/2011 08:45	95113	1.0265		50
580-28356-3	09/12/2011 08:45	95113	1.0561		50
580-28356-4	09/12/2011 08:45	95113	1.1543		50
580-28356-5	09/12/2011 08:45	95113	1.1184		50
580-28356-6	09/12/2011 08:45	95113	1.1103		50
580-28356-7	09/12/2011 08:45	95113	1.0731		50
580-28356-8	09/12/2011 08:45	95113	1.1750		50
580-28356-9	09/12/2011 08:45	95113	1.1122		50
580-28356-10	09/12/2011 08:45	95113	1.0181		50
MB 580-95113/21-A	09/12/2011 08:45	95113	1.0		50
LCS 580-95113/22-A	09/12/2011 08:45	95113	1.0		50
LCSD 580-95113/23-A	09/12/2011 08:45	95113	1.0		50
LCSSRM 580-95113/24-A	09/12/2011 08:45	95113	0.5024		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-11	09/12/2011 09:00	95118	1.1378		50
580-28356-11 DU	09/12/2011 09:00	95118	1.1270		50
580-28356-11 MS	09/12/2011 09:00	95118	1.0764		50
580-28356-11 MSD	09/12/2011 09:00	95118	1.1495		50
580-28356-13	09/12/2011 09:00	95118	1.0643		50
580-28356-14	09/12/2011 09:00	95118	1.0361		50
580-28356-15	09/12/2011 09:00	95118	1.2000		50
580-28356-16	09/12/2011 09:00	95118	1.0606		50
580-28356-17	09/12/2011 09:00	95118	1.1931		50
580-28356-18	09/12/2011 09:00	95118	1.0245		50
580-28356-19	09/12/2011 09:00	95118	1.0610		50
580-28356-20	09/12/2011 09:00	95118	1.1826		50
580-28356-21	09/12/2011 09:00	95118	1.0381		50
580-28356-22	09/12/2011 09:00	95118	1.1293		50
580-28356-23	09/12/2011 09:00	95118	1.0109		50
MB 580-95118/16-A	09/12/2011 09:00	95118	1.0		50
LCS 580-95118/17-A	09/12/2011 09:00	95118	1.0		50
LCSD 580-95118/18-A	09/12/2011 09:00	95118	1.0		50
LCSSRM 580-95118/19-A	09/12/2011 09:00	95118	0.5025		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-12	09/15/2011 13:11	95447	10.0625		100
580-28356-12 MS	09/15/2011 13:11	95447	9.9949		100
580-28356-12 MSD	09/15/2011 13:11	95447	10.0803		100
MB 580-95447/18-A	09/15/2011 13:13	95447	2.0		100
LCS 580-95447/19-A	09/15/2011 13:26	95447	2.0		100
LCSD 580-95447/20-A	09/15/2011 13:26	95447	2.0		100
LCSSRM 580-95447/21-A	09/15/2011 13:26	95447	1.0096		100

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-1	09/11/2011 14:46	95102	0.6882		50
580-28356-1 DU	09/11/2011 14:46	95102	0.6793		50
580-28356-1 MS	09/11/2011 14:46	95102	0.6105		50
580-28356-1 MSD	09/11/2011 14:46	95102	0.7151		50
580-28356-2	09/11/2011 14:46	95102	0.6326		50
580-28356-3	09/11/2011 14:46	95102	0.6087		50
580-28356-4	09/11/2011 14:46	95102	0.8186		50
580-28356-5	09/11/2011 14:46	95102	0.9619		50
MB 580-95102/17-A	09/11/2011 14:46	95102	0.6		50
LCS 580-95102/18-A	09/11/2011 14:46	95102	0.6		50
LCSD 580-95102/19-A	09/11/2011 14:46	95102	0.6		50
LCSSRM 580-95102/20-A	09/11/2011 14:46	95102	0.0997		50

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PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-6	09/13/2011 12:42	95264	0.7072		50
580-28356-6 DU	09/13/2011 12:42	95264	0.6715		50
580-28356-6 MS	09/13/2011 12:42	95264	0.6709		50
580-28356-6 MSD	09/13/2011 12:42	95264	0.6469		50
580-28356-7	09/13/2011 12:42	95264	0.8442		50
580-28356-8	09/13/2011 12:42	95264	0.6816		50
580-28356-9	09/13/2011 12:42	95264	0.6657		50
580-28356-10	09/13/2011 12:42	95264	0.6032		50
580-28356-11	09/13/2011 12:42	95264	0.6319		50
580-28356-13	09/13/2011 12:42	95264	0.6176		50
580-28356-14	09/13/2011 12:42	95264	0.6034		50
580-28356-15	09/13/2011 12:42	95264	0.6466		50
580-28356-16	09/13/2011 12:42	95264	0.7305		50
580-28356-17	09/13/2011 12:42	95264	0.7191		50
580-28356-18	09/13/2011 12:42	95264	0.7447		50
580-28356-19	09/13/2011 12:42	95264	0.6097		50
580-28356-20	09/13/2011 12:42	95264	0.6111		50
580-28356-21	09/13/2011 12:42	95264	0.7784		50
580-28356-22	09/13/2011 12:42	95264	0.6814		50
580-28356-23	09/13/2011 12:42	95264	0.6155		50
MB 580-95264/21-A	09/13/2011 12:42	95264	0.6		50
LCS 580-95264/22-A	09/13/2011 12:45	95264	0.6		50
LCSD 580-95264/23-A	09/13/2011 12:45	95264	0.6		50
LCSSRM 580-95264/24-A	09/13/2011 12:45	95264	0.1035		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28356-12	09/15/2011 14:25	95460	5.0378		50
580-28356-12 MS	09/15/2011 14:25	95460	5.0171		50
580-28356-12 MSD	09/15/2011 14:25	95460	4.9913		50
MB 580-95460/6-A	09/15/2011 14:25	95460	5		50
LCS 580-95460/7-A	09/15/2011 14:25	95460	5		50
LCSD 580-95460/8-A	09/15/2011 14:25	95460	5		50
LCSSRM 580-95460/9-A	09/15/2011 14:25	95460	0.1041		50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/13/2011 13:56 End Date: 09/14/2011 04:48

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ca	Fe	K	Mg																
STD0 580-95314/1 IC			13:56	X	X	X	X																
STD1 580-95314/2 IC			14:03	X	X	X	X																
STD2 580-95314/3 IC			14:10	X	X	X	X																
STD3 580-95314/4 IC			14:16	X	X	X	X																
STD4 580-95314/5 IC			14:23	X	X	X	X																
ICV 580-95314/6	1		14:29	X	X	X	X																
ICB 580-95314/7	1		14:38	X	X	X	X																
CRI 580-95314/8	1		14:45	X	X	X	X																
ICSA 580-95314/9	1		15:03	X	X	X	X																
ICSAB 580-95314/10	1		15:13	X	X	X	X																
CCV 580-95314/11	1		15:19	X	X	X	X																
CCB 580-95314/12	1		15:26	X	X	X	X																
MB 580-95113/21-A	1	T	15:35	X	X	X	X																
LCS 580-95113/22-A	1	T	15:42	X	X	X	X																
LCSD 580-95113/23-A	1	T	15:49	X	X	X	X																
LCSSRM 580-95113/24-A	1	T	15:55	X	X	X	X																
580-28356-1 SD	5	T	16:02	X	X	X	X																
580-28356-1	1	T	16:09	X	X	X	X																
580-28356-1 DU	1	T	16:15	X	X	X	X																
580-28356-1 MS	1	T	16:22	X	X	X	X																
580-28356-1 MSD	1	T	16:29	X	X	X	X																
580-28356-1 PDS	1	T	16:35	X	X	X	X																
CCV 580-95314/23	1		16:42	X	X	X	X																
CCB 580-95314/24	1		16:49	X	X	X	X																
580-28356-2	1	T	16:58	X	X	X	X																
580-28356-3	1	T	17:05	X		X	X																
580-28356-4	1	T	17:12	X		X	X																
580-28356-5	1	T	17:18	X		X	X																
580-28356-6	1	T	17:25	X	X	X	X																
580-28356-7	1	T	17:32	X		X	X																
580-28356-8	1	T	17:39	X	X	X	X																
580-28356-9	1	T	17:46	X	X	X	X																
580-28356-10	1	T	17:53	X		X	X																
CCV 580-95314/34	1		17:59	X	X	X	X																
CCB 580-95314/35	1		18:08	X	X	X	X																
ZZZZZZ			18:18																				
ZZZZZZ			18:25																				
ZZZZZZ			18:32																				
ZZZZZZ			18:39																				
ZZZZZZ			18:45																				
ZZZZZZ			18:52																				
ZZZZZZ			18:59																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/13/2011 13:56 End Date: 09/14/2011 04:48

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ca	Fe	K	Mg																
CCV 580-95314/43	1		19:06	X	X	X	X																
CCB 580-95314/44	1		19:15	X	X	X	X																
MB 580-95118/16-A	1	T	19:22	X	X	X	X																
LCS 580-95118/17-A	1	T	19:29	X	X	X	X																
LCSD 580-95118/18-A	1	T	19:35	X	X	X	X																
LCSSRM 580-95118/19-A	1	T	19:42	X	X	X	X																
580-28356-11 SD	5	T	19:49	X	X	X	X																
580-28356-11	1	T	19:55	X	X	X	X																
580-28356-11 DU	1	T	20:02	X	X	X	X																
580-28356-11 MS	1	T	20:09	X	X	X	X																
580-28356-11 MSD	1	T	20:16	X	X	X	X																
580-28356-11 PDS	1	T	20:23	X	X	X	X																
CCV 580-95314/55	1		20:29	X	X	X	X																
CCB 580-95314/56	1		20:36	X	X	X	X																
580-28356-13	1	T	20:45	X	X	X	X																
580-28356-14	1	T	20:52	X	X	X	X																
580-28356-15	1	T	20:59	X	X	X	X																
580-28356-16	1	T	21:06	X	X	X	X																
580-28356-17	1	T	21:13	X		X	X																
580-28356-18	1	T	21:19	X		X	X																
CCV 580-95314/63	1		21:26	X	X	X	X																
CCB 580-95314/64	1		21:33	X	X	X	X																
580-28356-19	1	T	21:42	X		X	X																
580-28356-20	1	T	21:49	X		X	X																
580-28356-21	1	T	21:56	X		X	X																
580-28356-22	1	T	22:03	X	X	X	X																
580-28356-23	1	T	22:09	X	X	X	X																
CCV 580-95314/70	1		22:16	X	X	X	X																
CCB 580-95314/71	1		22:25	X	X	X	X																
ZZZZZZ			22:32																				
ZZZZZZ			22:39																				
ZZZZZZ			22:46																				
ZZZZZZ			22:52																				
ZZZZZZ			22:59																				
ZZZZZZ			23:06																				
ZZZZZZ			23:13																				
ZZZZZZ			23:19																				
ZZZZZZ			23:26																				
CCV 580-95314/81			23:32																				
CCB 580-95314/82			23:39																				
ZZZZZZ			23:48																				
ZZZZZZ			23:55																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/13/2011 13:56 End Date: 09/14/2011 04:48

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ca	Fe	K	Mg																	
ZZZZZZ			00:02																					
ZZZZZZ			00:09																					
ZZZZZZ			00:16																					
ZZZZZZ			00:23																					
ZZZZZZ			00:29																					
CCV 580-95314/90			00:36																					
CCB 580-95314/91			00:43																					
ZZZZZZ			00:50																					
ZZZZZZ			00:56																					
ZZZZZZ			01:03																					
ZZZZZZ			01:10																					
ZZZZZZ			01:17																					
ZZZZZZ			01:24																					
ZZZZZZ			01:31																					
ZZZZZZ			01:38																					
CCV 580-95314/100			01:45																					
CCB 580-95314/101			01:52																					
ZZZZZZ			01:59																					
ZZZZZZ			02:06																					
ZZZZZZ			02:12																					
ZZZZZZ			02:19																					
ZZZZZZ			02:25																					
ZZZZZZ			02:32																					
ZZZZZZ			02:39																					
ZZZZZZ			02:46																					
ZZZZZZ			02:53																					
ZZZZZZ			02:59																					
CCV 580-95314/112			03:05																					
CCB 580-95314/113			03:13																					
ZZZZZZ			03:22																					
ZZZZZZ			03:28																					
ZZZZZZ			03:34																					
ZZZZZZ			03:40																					
ZZZZZZ			03:46																					
ZZZZZZ			03:52																					
ZZZZZZ			03:58																					
ZZZZZZ			04:04																					
CCV 580-95314/122			04:10																					
CCB 580-95314/123			04:16																					
ZZZZZZ			04:22																					
ZZZZZZ			04:28																					
ZZZZZZ			04:34																					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/13/2011 13:56 End Date: 09/14/2011 04:48

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	K	Mg																
CCV 580-95314/127			04:40																				
CCB 580-95314/128			04:48																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/14/2011 07:17 End Date: 09/14/2011 13:13

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	Mg																	
STD0 580-95389/1 IC			07:17	X	X	X																	
STD1 580-95389/2 IC			07:24	X	X	X																	
STD2 580-95389/3 IC			07:31	X	X	X																	
STD3 580-95389/4 IC			07:37	X	X	X																	
STD4 580-95389/5 IC			07:44	X	X	X																	
ICV 580-95389/6	1		07:50	X	X	X																	
ICB 580-95389/7	1		07:59	X	X	X																	
CRI 580-95389/8	1		08:09	X	X	X																	
ICSA 580-95389/9	1		08:27	X	X	X																	
ICSAB 580-95389/10	1		08:37	X	X	X																	
CCV 580-95389/11	1		11:12	X	X	X																	
CCB 580-95389/12	1		11:18	X	X	X																	
MB 580-95113/21-A	1	T	11:28	X	X	X																	
580-28356-3	100	T	11:35		X																		
580-28356-4	100	T	11:42		X																		
580-28356-5	100	T	11:49		X																		
580-28356-7	100	T	11:56		X																		
580-28356-10	100	T	12:02		X																		
CCV 580-95389/19	1		12:09	X	X	X																	
CCB 580-95389/20	1		12:18	X	X	X																	
MB 580-95118/16-A	1	T	12:25	X	X	X																	
580-28356-17	100	T	12:32		X																		
580-28356-18	100	T	12:39		X																		
580-28356-19	100	T	12:46		X																		
580-28356-20	100	T	12:53		X																		
580-28356-21	100	T	13:00		X																		
CCV 580-95389/27	1		13:07	X	X	X																	
CCB 580-95389/28	1		13:13	X	X	X																	

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/16/2011 09:42 End Date: 09/16/2011 12:43

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	K	Mg																
STD0 580-95537/1 IC			09:42	X	X	X	X																
STD1 580-95537/2 IC			09:49	X	X	X	X																
STD2 580-95537/3 IC			09:56	X	X	X	X																
STD3 580-95537/4 IC			10:02	X	X	X	X																
STD4 580-95537/5 IC			10:09	X	X	X	X																
ICV 580-95537/6	1		10:15	X	X	X	X																
ICB 580-95537/7	1		10:24	X	X	X	X																
CRI 580-95537/8	1		10:34	X	X	X	X																
ICSA 580-95537/9	1		10:52	X	X	X	X																
ICSAB 580-95537/10	1		11:02	X	X	X	X																
CCV 580-95537/11	1		11:09	X	X	X	X																
CCB 580-95537/12	1		11:15	X	X	X	X																
MB 580-95447/18-A	1	T	11:22	X	X	X	X																
LCS 580-95447/19-A	1	T	11:29	X	X	X	X																
LCSD 580-95447/20-A	1	T	11:36	X	X	X	X																
LCSSRM 580-95447/21-A	1	T	11:42	X	X	X	X																
580-28356-12 SD	50	T	11:49	X	X	X	X																
580-28356-12	10	T	11:56	X		X	X																
580-28356-12 MS	10	T	12:03	X	X	X	X																
580-28356-12 MSD	10	T	12:09	X	X	X	X																
580-28356-12 PDS	10	T	12:16	X	X	X	X																
580-28356-12	100	T	12:23		X																		
ZZZZZZ			12:30																				
CCV 580-95537/24	1		12:37	X	X	X	X																
CCB 580-95537/25	1		12:43	X	X	X	X																

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/13/2011 16:33 End Date: 09/14/2011 04:24

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
STD0 580-95318/1 IC	1		16:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD1 580-95318/2 IC	1		16:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD2 580-95318/3 IC	1		16:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD3 580-95318/4 IC	1		16:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD4 580-95318/5 IC	1		16:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD5 580-95318/6 IC	1		16:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICV 580-95318/7	1		16:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICB 580-95318/8	1		17:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CRI 580-95318/9	1		17:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICSA 580-95318/10	1		17:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICSAB 580-95318/11	1		17:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-95318/12	1		17:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-95318/13	1		17:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MB 580-95118/16-A	10	T	18:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-11 SD	50	T	18:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-11	10	T	18:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-11 DU	10	T	18:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-11 MS	50	T	18:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-11 MSD	50	T	18:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-11 PDS	50	T	18:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 580-95118/17-A	50	T	18:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSD 580-95118/18-A	50	T	18:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSSRM 580-95118/19-A	20	T	18:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-95318/24	1		18:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-95318/25	1		18:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-13	10	T	18:52	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28356-14	10	T	18:56	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28356-15	10	T	19:01	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28356-16	10	T	19:05	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28356-17	10	T	19:10	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X			
580-28356-18	10	T	19:14	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X			
580-28356-19	10	T	19:18	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28356-20	10	T	19:22	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28356-21	10	T	19:27	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28356-22	10	T	19:31	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCV 580-95318/36	1		19:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-95318/37	1		19:40	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28356-23	10	T	19:44	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
CCV 580-95318/39	1		19:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-95318/40	1		19:53	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MB 580-95113/21-A	10	T	19:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-1 SD	50	T	20:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/13/2011 16:33 End Date: 09/14/2011 04:24

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
580-28356-1	10	T	20:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-1 DU	10	T	20:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-1 MS	50	T	20:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-1 MSD	50	T	20:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-1 PDS	50	T	20:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 580-95113/22-A	50	T	20:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSD 580-95113/23-A	50	T	20:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSSRM 580-95113/24-A	20	T	20:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-95318/51	1		20:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-95318/52	1		20:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-2	10	T	20:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-3	10	T	20:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-4	10	T	20:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-5	10	T	21:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-6	10	T	21:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-7	10	T	21:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-8	10	T	21:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-9	10	T	21:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-10	10	T	21:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			21:29																				
CCV 580-95318/63	1		21:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-95318/64	1		21:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			21:42																				
ZZZZZZ			21:46																				
ZZZZZZ			21:50																				
ZZZZZZ			21:55																				
ZZZZZZ			21:59																				
ZZZZZZ			22:03																				
CCV 580-95318/71			22:08																				
CCB 580-95318/72			22:12																				
ZZZZZZ			22:16																				
ZZZZZZ			22:21																				
ZZZZZZ			22:25																				
ZZZZZZ			22:29																				
ZZZZZZ			22:34																				
ZZZZZZ			22:38																				
ZZZZZZ			22:42																				
ZZZZZZ			22:47																				
ZZZZZZ			22:51																				
CCV 580-95318/82			22:55																				
CCB 580-95318/83			23:00																				
ZZZZZZ			23:04																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/13/2011 16:33 End Date: 09/14/2011 04:24

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
ZZZZZZ			23:08																				
ZZZZZZ			23:13																				
ZZZZZZ			23:17																				
ZZZZZZ			23:21																				
ZZZZZZ			23:26																				
ZZZZZZ			23:30																				
ZZZZZZ			23:34																				
ZZZZZZ			23:38																				
ZZZZZZ			23:42																				
CCV 580-95318/94			23:47																				
CCB 580-95318/95			23:51																				
ZZZZZZ			23:55																				
ZZZZZZ			00:00																				
ZZZZZZ			00:04																				
ZZZZZZ			00:08																				
ZZZZZZ			00:12																				
CCV 580-95318/101			00:17																				
CCB 580-95318/102			00:21																				
ZZZZZZ			00:25																				
ZZZZZZ			00:30																				
ZZZZZZ			00:34																				
ZZZZZZ			00:38																				
ZZZZZZ			00:43																				
ZZZZZZ			00:47																				
ZZZZZZ			00:51																				
ZZZZZZ			00:56																				
ZZZZZZ			01:00																				
ZZZZZZ			01:04																				
CCV 580-95318/113			01:09																				
CCB 580-95318/114			01:13																				
ZZZZZZ			01:18																				
ZZZZZZ			01:22																				
ZZZZZZ			01:26																				
CCV 580-95318/118			01:30																				
CCB 580-95318/119			01:35																				
ZZZZZZ			01:39																				
ZZZZZZ			01:43																				
ZZZZZZ			01:48																				
ZZZZZZ			01:52																				
ZZZZZZ			01:56																				
ZZZZZZ			02:00																				
ZZZZZZ			02:05																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/13/2011 16:33 End Date: 09/14/2011 04:24

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
ZZZZZZ			02:09																					
ZZZZZZ			02:13																					
ZZZZZZ			02:17																					
CCV 580-95318/130			02:22																					
CCB 580-95318/131			02:26																					
ZZZZZZ			02:30																					
ZZZZZZ			02:35																					
ZZZZZZ			02:39																					
ZZZZZZ			02:43																					
ZZZZZZ			02:48																					
ZZZZZZ			02:52																					
ZZZZZZ			02:56																					
ZZZZZZ			03:00																					
CCV 580-95318/140			03:05																					
CCB 580-95318/141			03:09																					
ZZZZZZ			03:14																					
ZZZZZZ			03:18																					
ZZZZZZ			03:22																					
ZZZZZZ			03:27																					
ZZZZZZ			03:31																					
ZZZZZZ			03:36																					
ZZZZZZ			03:40																					
ZZZZZZ			03:44																					
ZZZZZZ			03:49																					
CCV 580-95318/151			03:53																					
CCB 580-95318/152			03:58																					
ZZZZZZ			04:02																					
ZZZZZZ			04:06																					
CCV 580-95318/155			04:19																					
CCB 580-95318/156			04:24																					

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/14/2011 09:09 End Date: 09/14/2011 14:26

Lab Sample ID	D/F	Type	Time	Analytes																			
				As	Mn	Zn																	
STD0 580-95377/1 IC	1		09:09	X	X	X																	
STD1 580-95377/2 IC	1		09:14	X	X	X																	
STD2 580-95377/3 IC	1		09:18	X	X	X																	
STD3 580-95377/4 IC	1		09:22	X	X	X																	
STD4 580-95377/5 IC	1		09:27	X	X	X																	
STD5 580-95377/6 IC	1		09:31	X	X	X																	
ICV 580-95377/7	1		09:35	X	X	X																	
ICB 580-95377/8	1		09:40	X	X	X																	
CRI 580-95377/9	1		09:44	X	X	X																	
ICSA 580-95377/10	1		09:48	X	X	X																	
ICSAB 580-95377/11	1		09:53	X	X	X																	
CCV 580-95377/12	1		10:32	X	X	X																	
CCB 580-95377/13	1		10:36	X	X	X																	
580-28356-13	10	T	10:40		X																		
580-28356-14	10	T	10:45		X																		
580-28356-15	10	T	10:49		X																		
580-28356-16	10	T	10:53		X																		
580-28356-21	10	T	10:58		X																		
580-28356-22	10	T	11:02		X																		
580-28356-23	10	T	11:06		X																		
580-28356-17	1000	T	11:11	X	X	X																	
580-28356-18	1000	T	11:15	X	X	X																	
580-28356-19	1000	T	11:20	X	X																		
CCV 580-95377/24	1		11:24	X	X	X																	
CCB 580-95377/25	1		11:28	X	X	X																	
580-28356-20	1000	T	11:33	X	X																		
ZZZZZZ			11:37																				
ZZZZZZ			11:41																				
CCV 580-95377/29	1		11:46	X	X	X																	
CCB 580-95377/30	1		11:50	X	X	X																	
ZZZZZZ			11:55																				
ZZZZZZ			11:59																				
ZZZZZZ			12:03																				
ZZZZZZ			12:08																				
ZZZZZZ			12:12																				
ZZZZZZ			12:16																				
ZZZZZZ			12:21																				
ZZZZZZ			12:25																				
ZZZZZZ			12:29																				
ZZZZZZ			12:34																				
CCV 580-95377/41			12:38																				
CCB 580-95377/42			12:42																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/14/2011 09:09 End Date: 09/14/2011 14:26

Lab Sample ID	D / F	Type	Time	Analytes																				
				As	Mn	Zn																		
ZZZZZZ			12:47																					
ZZZZZZ			12:51																					
ZZZZZZ			12:55																					
ZZZZZZ			12:59																					
ZZZZZZ			13:04																					
ZZZZZZ			13:08																					
ZZZZZZ			13:12																					
ZZZZZZ			13:16																					
ZZZZZZ			13:21																					
ZZZZZZ			13:25																					
CCV 580-95377/53			13:29																					
CCB 580-95377/54			13:34																					
ZZZZZZ			13:38																					
ZZZZZZ			13:42																					
ZZZZZZ			13:47																					
ZZZZZZ			13:51																					
ZZZZZZ			13:56																					
ZZZZZZ			14:00																					
ZZZZZZ			14:04																					
ZZZZZZ			14:09																					
ZZZZZZ			14:13																					
ZZZZZZ			14:17																					
CCV 580-95377/65			14:21																					
CCB 580-95377/66			14:26																					

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/15/2011 15:29 End Date: 09/16/2011 10:21

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
STD0 580-95520/1 IC			15:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD1 580-95520/2 IC			15:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD2 580-95520/3 IC			15:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD3 580-95520/4 IC			15:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD4 580-95520/5 IC			15:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD5 580-95520/6 IC			15:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICV 580-95520/7			15:55																				
ICB 580-95520/8			15:59																				
CRI 580-95520/9			16:04																				
ICSA 580-95520/10			16:08																				
ICSAB 580-95520/11			16:12																				
CCV 580-95520/12			16:47																				
CCB 580-95520/13			16:52																				
ZZZZZZ			16:56																				
ZZZZZZ			17:00																				
ZZZZZZ			17:05																				
ZZZZZZ			17:09																				
ZZZZZZ			17:13																				
ZZZZZZ			17:18																				
ZZZZZZ			17:22																				
ZZZZZZ			17:26																				
ZZZZZZ			17:31																				
CCV 580-95520/23			17:35																				
CCB 580-95520/24			17:39																				
ZZZZZZ			17:44																				
ZZZZZZ			17:48																				
ZZZZZZ			17:53																				
ZZZZZZ			17:57																				
ZZZZZZ			18:01																				
ZZZZZZ			18:06																				
ZZZZZZ			18:10																				
ZZZZZZ			18:14																				
ZZZZZZ			18:19																				
ZZZZZZ			18:23																				
CCV 580-95520/35			18:27																				
CCB 580-95520/36			18:32																				
ZZZZZZ			18:36																				
ZZZZZZ			18:41																				
ZZZZZZ			18:45																				
ZZZZZZ			18:49																				
ZZZZZZ			18:54																				
ZZZZZZ			18:58																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/15/2011 15:29 End Date: 09/16/2011 10:21

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
ZZZZZZ			19:02																				
ZZZZZZ			19:06																				
ZZZZZZ			19:11																				
CCV 580-95520/46			19:15																				
CCB 580-95520/47			19:19																				
ZZZZZZ			19:24																				
ZZZZZZ			19:28																				
ZZZZZZ			19:33																				
ZZZZZZ			19:37																				
CCV 580-95520/52			19:41																				
CCB 580-95520/53			19:46																				
ZZZZZZ			19:50																				
ZZZZZZ			19:55																				
ZZZZZZ			19:59																				
ZZZZZZ			20:03																				
ZZZZZZ			20:08																				
ZZZZZZ			20:12																				
CCV 580-95520/60			20:16																				
CCB 580-95520/61			20:21																				
ZZZZZZ			20:25																				
ZZZZZZ			20:29																				
ZZZZZZ			20:34																				
ZZZZZZ			20:38																				
ZZZZZZ			20:42																				
ZZZZZZ			20:46																				
ZZZZZZ			20:51																				
ZZZZZZ			20:55																				
ZZZZZZ			20:59																				
ZZZZZZ			21:04																				
CCV 580-95520/72			21:08																				
CCB 580-95520/73			21:13																				
ZZZZZZ			21:17																				
ZZZZZZ			21:21																				
ZZZZZZ			21:26																				
ZZZZZZ			21:30																				
CCV 580-95520/78			21:35																				
CCB 580-95520/79			21:39																				
ZZZZZZ			21:43																				
ZZZZZZ			21:48																				
ZZZZZZ			21:52																				
ZZZZZZ			21:56																				
ZZZZZZ			22:01																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/15/2011 15:29 End Date: 09/16/2011 10:21

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
ZZZZZZ			22:05																				
CCV 580-95520/86			22:09																				
CCB 580-95520/87			22:14																				
ZZZZZZ			22:18																				
ZZZZZZ			22:22																				
ZZZZZZ			22:27																				
ZZZZZZ			22:31																				
ZZZZZZ			22:35																				
ZZZZZZ			22:40																				
ZZZZZZ			22:44																				
ZZZZZZ			22:48																				
ZZZZZZ			22:53																				
ZZZZZZ			22:57																				
CCV 580-95520/98			23:01																				
CCB 580-95520/99			23:05																				
ZZZZZZ			23:10																				
ZZZZZZ			23:14																				
CCV 580-95520/102			23:18																				
CCB 580-95520/103			23:23																				
ICSA 580-95520/104			23:27																				
ICSAB 580-95520/105			23:31																				
CCV 580-95520/106			23:36																				
CCB 580-95520/107			23:40																				
ZZZZZZ			23:44																				
ZZZZZZ			23:49																				
ZZZZZZ			23:53																				
ZZZZZZ			23:58																				
ZZZZZZ			00:02																				
ZZZZZZ			00:06																				
ZZZZZZ			00:11																				
ZZZZZZ			00:15																				
ZZZZZZ			00:20																				
ZZZZZZ			00:24																				
CCV 580-95520/118			00:28																				
CCB 580-95520/119			00:33																				
ZZZZZZ			00:37																				
ZZZZZZ			00:42																				
ZZZZZZ			00:46																				
ZZZZZZ			00:50																				
ZZZZZZ			00:55																				
ZZZZZZ			00:59																				
ZZZZZZ			01:04																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/15/2011 15:29 End Date: 09/16/2011 10:21

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
ZZZZZZ			01:08																				
ZZZZZZ			01:13																				
ZZZZZZ			01:17																				
CCV 580-95520/130			01:21																				
CCB 580-95520/131			01:26																				
ZZZZZZ			01:30																				
ZZZZZZ			01:35																				
ZZZZZZ			01:39																				
ZZZZZZ			01:43																				
ZZZZZZ			01:48																				
ZZZZZZ			01:52																				
CCV 580-95520/138			01:57																				
CCB 580-95520/139			02:01																				
ZZZZZZ			02:05																				
ZZZZZZ			02:10																				
ZZZZZZ			02:14																				
ZZZZZZ			02:19																				
ZZZZZZ			02:23																				
ZZZZZZ			02:27																				
ZZZZZZ			02:32																				
ZZZZZZ			02:36																				
ZZZZZZ			02:40																				
ZZZZZZ			02:45																				
CCV 580-95520/150			02:49																				
CCB 580-95520/151			02:54																				
ZZZZZZ			02:58																				
ZZZZZZ			03:02																				
ZZZZZZ			03:07																				
ZZZZZZ			03:11																				
ZZZZZZ			03:16																				
ZZZZZZ			03:20																				
ZZZZZZ			03:24																				
ZZZZZZ			03:29																				
ZZZZZZ			03:33																				
ZZZZZZ			03:38																				
CCV 580-95520/162			03:42																				
CCB 580-95520/163			03:46																				
MB 580-95447/18-A	100	T	03:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-12 SD	500	T	03:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-12	100	T	04:00	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-12 MS	100	T	04:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28356-12 MSD	100	T	04:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/15/2011 15:29 End Date: 09/16/2011 10:21

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
580-28356-12 PDS	100	T	04:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 580-95447/19-A	50	T	04:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSD 580-95447/20-A	50	T	04:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSSRM 580-95447/21-A	20	T	04:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-95520/173			04:30																				
CCB 580-95520/174			04:34																				
580-28356-12	10000	T	04:39			X																	
CCV 580-95520/176			04:47																				
CCB 580-95520/177			04:52																				
ZZZZZZ			04:56																				
ZZZZZZ			05:01																				
ZZZZZZ			05:05																				
ZZZZZZ			05:09																				
ZZZZZZ			05:14																				
ZZZZZZ			05:18																				
ZZZZZZ			05:23																				
ZZZZZZ			05:27																				
ZZZZZZ			05:31																				
CCV 580-95520/187			05:36																				
CCB 580-95520/188			05:40																				
ZZZZZZ			05:45																				
ZZZZZZ			05:49																				
ZZZZZZ			05:53																				
ZZZZZZ			05:58																				
ZZZZZZ			06:02																				
ZZZZZZ			06:07																				
ZZZZZZ			06:11																				
ZZZZZZ			06:16																				
ZZZZZZ			06:20																				
ZZZZZZ			06:24																				
CCV 580-95520/199			06:29																				
CCB 580-95520/200			06:33																				
ZZZZZZ			06:38																				
ZZZZZZ			06:42																				
ZZZZZZ			06:46																				
ZZZZZZ			06:51																				
ZZZZZZ			06:55																				
ZZZZZZ			07:00																				
CCV 580-95520/207			07:04																				
CCB 580-95520/208			07:08																				
ZZZZZZ			07:13																				
ZZZZZZ			07:17																				

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/15/2011 15:29 End Date: 09/16/2011 10:21

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
ZZZZZZ			07:22																				
ZZZZZZ			07:26																				
ZZZZZZ			07:30																				
ZZZZZZ			07:35																				
ZZZZZZ			07:39																				
ZZZZZZ			07:43																				
ZZZZZZ			07:48																				
CCV 580-95520/218			07:52																				
CCB 580-95520/219			07:56																				
ZZZZZZ			08:01																				
ZZZZZZ			08:05																				
ZZZZZZ			08:10																				
ZZZZZZ			08:14																				
ZZZZZZ			08:18																				
ZZZZZZ			08:23																				
ZZZZZZ			08:27																				
ZZZZZZ			08:31																				
ZZZZZZ			08:36																				
CCV 580-95520/229			08:40																				
CCB 580-95520/230			08:44																				
ZZZZZZ			08:49																				
ZZZZZZ			08:53																				
ZZZZZZ			08:58																				
ZZZZZZ			09:02																				
ZZZZZZ			09:06																				
ZZZZZZ			09:11																				
ZZZZZZ			09:15																				
ZZZZZZ			09:20																				
ZZZZZZ			09:24																				
CCV 580-95520/240			09:28																				
CCB 580-95520/241			09:33																				
ZZZZZZ			09:37																				
ZZZZZZ			09:42																				
ZZZZZZ			09:46																				
ZZZZZZ			09:51																				
ZZZZZZ			09:55																				
ZZZZZZ			09:59																				
ZZZZZZ			10:04																				
ZZZZZZ			10:08																				
ZZZZZZ			10:13																				
CCV 580-95520/251			10:17																				
CCB 580-95520/252			10:21																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/15/2011 15:29 End Date: 09/16/2011 10:21

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/13/2011 12:05 End Date: 09/13/2011 18:37

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
STD0 580-95332/1 IC			12:05	X																			
STD1 580-95332/2 IC			12:07	X																			
STD2 580-95332/3 IC			12:09	X																			
STD3 580-95332/4 IC			12:10	X																			
STD4 580-95332/5 IC			12:12	X																			
STD5 580-95332/6 IC			12:14	X																			
ICV 580-95332/7	1		12:16	X																			
ICB 580-95332/8	1		12:18	X																			
CCV 580-95332/9	1		12:21	X																			
CCB 580-95332/10	1		12:23	X																			
MB 580-95102/17-A	1	T	12:25	X																			
LCS 580-95102/18-A	1	T	12:26	X																			
LCSD 580-95102/19-A	1	T	12:28	X																			
LCSSRM 580-95102/20-A	10	T	12:30	X																			
580-28356-1	1	T	12:31	X																			
580-28356-1 DU	1	T	12:33	X																			
580-28356-1 MS	1	T	12:35	X																			
580-28356-1 MSD	1	T	12:37	X																			
580-28356-2	1	T	12:38	X																			
580-28356-3	1	T	12:40	X																			
CCV 580-95332/21	1		12:42	X																			
CCB 580-95332/22	1		12:44	X																			
580-28356-4	1	T	12:45	X																			
580-28356-5	1	T	12:47	X																			
ZZZZZZ			12:49																				
ZZZZZZ			12:51																				
ZZZZZZ			12:52																				
ZZZZZZ			12:54																				
ZZZZZZ			12:56																				
ZZZZZZ			12:57																				
ZZZZZZ			12:59																				
ZZZZZZ			13:01																				
CCV 580-95332/33	1		13:03	X																			
CCB 580-95332/34	1		13:04	X																			
ZZZZZZ			13:06																				
ZZZZZZ			13:08																				
ZZZZZZ			13:09																				
ZZZZZZ			13:11																				
ZZZZZZ			13:13																				
ZZZZZZ			13:15																				
ZZZZZZ			13:16																				
ZZZZZZ			13:18																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/13/2011 12:05 End Date: 09/13/2011 18:37

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
CCV 580-95332/43			13:20																				
CCB 580-95332/44			13:21																				
CCV 580-95332/45	1		15:09	X																			
CCB 580-95332/46	1		15:11	X																			
MB 580-95264/21-A	1	T	15:13	X																			
LCS 580-95264/22-A	1	T	15:14	X																			
LCSD 580-95264/23-A	1	T	15:16	X																			
LCSSRM 580-95264/24-A	10	T	15:18	X																			
580-28356-6	1	T	15:20	X																			
580-28356-6 DU	1	T	15:21	X																			
580-28356-6 MS	1	T	15:23	X																			
580-28356-6 MSD	1	T	15:25	X																			
580-28356-7	1	T	15:27	X																			
580-28356-8	1	T	15:29	X																			
CCV 580-95332/57	1		15:30	X																			
CCB 580-95332/58	1		15:32	X																			
580-28356-9	1	T	15:34	X																			
580-28356-10	1	T	15:35	X																			
580-28356-11	1	T	15:37	X																			
580-28356-13	1	T	15:39	X																			
580-28356-14	1	T	15:40	X																			
580-28356-15	1	T	15:42	X																			
580-28356-16	1	T	15:44	X																			
580-28356-18	1	T	15:47	X																			
CCV 580-95332/67	1		15:51	X																			
CCB 580-95332/68	1		15:53	X																			
580-28356-21	1	T	15:57	X																			
580-28356-22	1	T	15:59	X																			
580-28356-23	1	T	16:00	X																			
CCV 580-95332/72	1		16:02	X																			
CCB 580-95332/73	1		16:04	X																			
580-28356-17	5	T	17:06	X																			
580-28356-19	5	T	17:08	X																			
580-28356-20	5	T	17:10	X																			
CCV 580-95332/77	1		17:11	X																			
CCB 580-95332/78	1		17:13	X																			
ZZZZZZ			17:27																				
ZZZZZZ			17:29																				
ZZZZZZ			17:31																				
ZZZZZZ			17:32																				
ZZZZZZ			17:34																				
ZZZZZZ			17:36																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/13/2011 12:05 End Date: 09/13/2011 18:37

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			17:38																				
ZZZZZZ			17:39																				
ZZZZZZ			17:41																				
ZZZZZZ			17:43																				
CCV 580-95332/89			17:45																				
CCB 580-95332/90			17:46																				
ZZZZZZ			17:48																				
ZZZZZZ			17:50																				
ZZZZZZ			17:51																				
ZZZZZZ			17:53																				
ZZZZZZ			17:55																				
ZZZZZZ			17:56																				
ZZZZZZ			17:58																				
ZZZZZZ			18:00																				
ZZZZZZ			18:01																				
ZZZZZZ			18:03																				
CCV 580-95332/101			18:04																				
CCB 580-95332/102			18:06																				
ZZZZZZ			18:08																				
ZZZZZZ			18:11																				
ZZZZZZ			18:13																				
CCV 580-95332/106			18:15																				
CCB 580-95332/107			18:17																				
ZZZZZZ			18:34																				
CCV 580-95332/109			18:35																				
CCB 580-95332/110			18:37																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/15/2011 07:43 End Date: 09/15/2011 18:47

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
STD0 580-95485/1 IC			07:43	X																			
STD1 580-95485/2 IC			07:45	X																			
STD2 580-95485/3 IC			07:46	X																			
STD3 580-95485/4 IC			07:48	X																			
STD4 580-95485/5 IC			07:50	X																			
STD5 580-95485/6 IC			07:51	X																			
ICV 580-95485/7	1		07:53	X																			
ICB 580-95485/8	1		07:55	X																			
CCV 580-95485/9	1		15:52	X																			
CCB 580-95485/10	1		15:54	X																			
MB 580-95460/6-A	10	T	15:56	X																			
LCS 580-95460/7-A	10	T	15:57	X																			
LCSD 580-95460/8-A	10	T	16:06	X																			
LCSSRM 580-95460/9-A	10	T	16:07	X																			
CCV 580-95485/15	1		16:09	X																			
CCB 580-95485/16	1		16:11	X																			
580-28356-12	10	T	16:13	X																			
580-28356-12 MS	10	T	16:15	X																			
580-28356-12 MSD	10	T	16:16	X																			
ZZZZZZ			16:18																				
ZZZZZZ			16:20																				
CCV 580-95485/22	1		16:22	X																			
CCB 580-95485/23	1		16:24	X																			
ZZZZZZ			16:26																				
ZZZZZZ			16:27																				
ZZZZZZ			16:29																				
ZZZZZZ			16:31																				
ZZZZZZ			16:32																				
ZZZZZZ			16:34																				
ZZZZZZ			16:36																				
ZZZZZZ			16:38																				
ZZZZZZ			16:39																				
ZZZZZZ			16:41																				
CCV 580-95485/34			16:43																				
CCB 580-95485/35			16:45																				
ZZZZZZ			16:47																				
ZZZZZZ			16:48																				
ZZZZZZ			16:50																				
ZZZZZZ			16:51																				
ZZZZZZ			16:53																				
ZZZZZZ			16:55																				
ZZZZZZ			16:56																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/15/2011 07:43 End Date: 09/15/2011 18:47

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			16:58																				
ZZZZZZ			17:00																				
CCV 580-95485/45			17:01																				
CCB 580-95485/46			17:03																				
ZZZZZZ			17:05																				
ZZZZZZ			17:07																				
ZZZZZZ			17:08																				
ZZZZZZ			17:10																				
ZZZZZZ			17:12																				
ZZZZZZ			17:13																				
CCV 580-95485/53			17:15																				
CCB 580-95485/54			17:17																				
ZZZZZZ			17:19																				
ZZZZZZ			17:20																				
ZZZZZZ			17:22																				
ZZZZZZ			17:24																				
ZZZZZZ			17:26																				
ZZZZZZ			17:27																				
ZZZZZZ			17:29																				
ZZZZZZ			17:31																				
ZZZZZZ			17:32																				
ZZZZZZ			17:34																				
CCV 580-95485/65			17:36																				
CCB 580-95485/66			17:37																				
ZZZZZZ			17:41																				
ZZZZZZ			17:43																				
ZZZZZZ			17:44																				
ZZZZZZ			17:46																				
ZZZZZZ			17:48																				
ZZZZZZ			17:49																				
ZZZZZZ			17:51																				
ZZZZZZ			17:53																				
ZZZZZZ			17:55																				
ZZZZZZ			17:57																				
CCV 580-95485/77			17:58																				
CCB 580-95485/78			18:00																				
ZZZZZZ			18:02																				
CCV 580-95485/80			18:03																				
CCB 580-95485/81			18:05																				
ZZZZZZ			18:07																				
ZZZZZZ			18:09																				
ZZZZZZ			18:10																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/15/2011 07:43 End Date: 09/15/2011 18:47

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			18:12																				
ZZZZZZ			18:14																				
ZZZZZZ			18:16																				
ZZZZZZ			18:17																				
ZZZZZZ			18:19																				
ZZZZZZ			18:21																				
ZZZZZZ			18:23																				
CCV 580-95485/92			18:25																				
CCB 580-95485/93			18:27																				
ZZZZZZ			18:29																				
ZZZZZZ			18:30																				
ZZZZZZ			18:32																				
ZZZZZZ			18:34																				
ZZZZZZ			18:35																				
ZZZZZZ			18:37																				
ZZZZZZ			18:39																				
ZZZZZZ			18:40																				
ZZZZZZ			18:42																				
ZZZZZZ			18:44																				
CCV 580-95485/104			18:46																				
CCB 580-95485/105			18:47																				

Prep Types

T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/13/2011 End Date: 09/13/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q
STD0 580-95318/1 IC	16:33	100		100		100		100		100	
STD1 580-95318/2 IC	16:37	99		96		100		99		98	
STD2 580-95318/3 IC	16:41	99		98		101		99		99	
STD3 580-95318/4 IC	16:46	99		99		100		101		98	
STD4 580-95318/5 IC	16:50	98		96		100		101		97	
STD5 580-95318/6 IC	16:54	98		96		102		101		97	
ICV 580-95318/7	16:59	101		99		102		102		99	
ICB 580-95318/8	17:03	102		98		104		101		101	
CRI 580-95318/9	17:07	103		102		102		101		101	
ICSA 580-95318/10	17:12	106		104		104		100		89	
ICSAB 580-95318/11	17:16	105		105		104		99		89	
CCV 580-95318/12	17:51	82		83		94		99		97	
CCB 580-95318/13	17:55	81		83		94		98		99	
MB 580-95118/16-A	18:00					93				98	
580-28356-11 SD	18:04	94		98		102				99	
580-28356-11	18:08					94				96	
580-28356-11 DU	18:13					93				95	
580-28356-11 MS	18:17					99				98	
580-28356-11 MSD	18:21					99				98	
580-28356-11 PDS	18:26	90		93		99				98	
LCS 580-95118/17-A	18:30					94				98	
LCSD 580-95118/18-A	18:35					95				98	
LCSSRM	18:39					94				96	
CCV 580-95318/24	18:43	83		80		95		98		96	
CCB 580-95318/25	18:48	83		82		94		98		98	
580-28356-13	18:52					93				94	
580-28356-14	18:56					93				95	
580-28356-15	19:01					92				92	
580-28356-16	19:05					93				92	
580-28356-17	19:10					91				88	
580-28356-18	19:14					93				88	
580-28356-19	19:18					95				90	
580-28356-20	19:22					95				87	
580-28356-21	19:27					92				87	
580-28356-22	19:31					92				86	
CCV 580-95318/36	19:35	87		89		92		95		90	
CCB 580-95318/37	19:40	87		83		94		96		94	
580-28356-23	19:44					95				92	
CCV 580-95318/39	19:49	88		84		96		96		93	
CCB 580-95318/40	19:53	89		86		96		96		94	
MB 580-95113/21-A	19:57					95				95	
580-28356-1 SD	20:02	97		144		99				94	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/13/2011 End Date: 09/13/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q
580-28356-1	20:06					92				88	
580-28356-1 DU	20:10					94				89	
580-28356-1 MS	20:15					97				94	
580-28356-1 MSD	20:19					99				94	
580-28356-1 PDS	20:24	98		166		98				94	
LCS 580-95113/22-A	20:28					94				95	
LCSD 580-95113/23-A	20:32					95				95	
LCSSRM	20:37					95				93	
CCV 580-95318/51	20:41	91		89		97		97		93	
CCB 580-95318/52	20:45	92		94		97		98		97	
580-28356-2	20:50					97				94	
580-28356-3	20:54					95				88	
580-28356-4	20:59					94				85	
580-28356-5	21:03					94				85	
580-28356-6	21:07					96				88	
580-28356-7	21:12					96				86	
580-28356-8	21:16					97				89	
580-28356-9	21:20					97				93	
580-28356-10	21:24					98				89	
CCV 580-95318/63	21:33	100		96		97		95		91	
CCB 580-95318/64	21:37	101		100		97		96		95	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/13/2011 End Date: 09/13/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q	Element	Q
STD0 580-95318/1 IC	16:33	100		100		100					
STD1 580-95318/2 IC	16:37	100		99		99					
STD2 580-95318/3 IC	16:41	99		97		99					
STD3 580-95318/4 IC	16:46	100		99		100					
STD4 580-95318/5 IC	16:50	100		100		96					
STD5 580-95318/6 IC	16:54	98		98		95					
ICV 580-95318/7	16:59	99		99		97					
ICB 580-95318/8	17:03	100		101		99					
CRI 580-95318/9	17:07	100		100		100					
ICSA 580-95318/10	17:12	95		95		85					
ICSAB 580-95318/11	17:16	94		94		85					
CCV 580-95318/12	17:51	100		99		98					
CCB 580-95318/13	17:55	99		99		100					
MB 580-95118/16-A	18:00	100		99							
580-28356-11 SD	18:04	99		100							
580-28356-11	18:08	100		100							
580-28356-11 DU	18:13	100		100							
580-28356-11 MS	18:17	100		99							
580-28356-11 MSD	18:21	101		99							
580-28356-11 PDS	18:26	100		99							
LCS 580-95118/17-A	18:30	101		100							
LCSD 580-95118/18-A	18:35	100		100							
LCSSRM	18:39	100		100							
CCV 580-95318/24	18:43	99		98		97					
CCB 580-95318/25	18:48	100		99		101					
580-28356-13	18:52	99		99							
580-28356-14	18:56	99		99							
580-28356-15	19:01	99		98							
580-28356-16	19:05	98		99							
580-28356-17	19:10	96		94							
580-28356-18	19:14	97		96							
580-28356-19	19:18	96		95							
580-28356-20	19:22	95		94							
580-28356-21	19:27	92		92							
580-28356-22	19:31	94		93							
CCV 580-95318/36	19:35	95		95		92					
CCB 580-95318/37	19:40	97		96		97					
580-28356-23	19:44	96		96							
CCV 580-95318/39	19:49	96		96		93					
CCB 580-95318/40	19:53	96		97		97					
MB 580-95113/21-A	19:57	97		96							
580-28356-1 SD	20:02	96		96							

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/13/2011 End Date: 09/13/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q	Element	Q
580-28356-1	20:06	93		94							
580-28356-1 DU	20:10	94		95							
580-28356-1 MS	20:15	96		96							
580-28356-1 MSD	20:19	96		96							
580-28356-1 PDS	20:24	97		95							
LCS 580-95113/22-A	20:28	97		97							
LCSD 580-95113/23-A	20:32	98		97							
LCSSRM	20:37	97		97							
CCV 580-95318/51	20:41	96		96		94					
CCB 580-95318/52	20:45	97		98		97					
580-28356-2	20:50	97		97							
580-28356-3	20:54	94		93							
580-28356-4	20:59	92		92							
580-28356-5	21:03	92		91							
580-28356-6	21:07	94		93							
580-28356-7	21:12	93		92							
580-28356-8	21:16	94		94							
580-28356-9	21:20	96		96							
580-28356-10	21:24	95		94							
CCV 580-95318/63	21:33	95		94		93					
CCB 580-95318/64	21:37	95		96		96					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/14/2011 End Date: 09/14/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q
STD0 580-95377/1 IC	09:09	100		100		100		100		100	
STD1 580-95377/2 IC	09:14	99		98		99		99		99	
STD2 580-95377/3 IC	09:18	99		99		101		100		100	
STD3 580-95377/4 IC	09:22	96		98		99		100		100	
STD4 580-95377/5 IC	09:27	95		95		101		101		99	
STD5 580-95377/6 IC	09:31	92		93		98		100		97	
ICV 580-95377/7	09:35	94		93		100		101		99	
ICB 580-95377/8	09:40	97		95		101		100		102	
CRI 580-95377/9	09:44	95		97		99		101		101	
ICSA 580-95377/10	09:48	94		92		99		96		88	
ICSAB 580-95377/11	09:53	93		93		100		98		90	
CCV 580-95377/12	10:32	82		84		96		101		100	
CCB 580-95377/13	10:36	82		82		97		102		103	
580-28356-13	10:40					97				100	
580-28356-14	10:45					99				103	
580-28356-15	10:49					96				99	
580-28356-16	10:53					94				98	
580-28356-21	10:58					92				93	
580-28356-22	11:02					96				97	
580-28356-23	11:06					94				100	
580-28356-17	11:11										
580-28356-18	11:15										
580-28356-19	11:20										
CCV 580-95377/24	11:24	75		76		95		101		100	
CCB 580-95377/25	11:28	77		79		98		105		108	
580-28356-20	11:33										
CCV 580-95377/29	11:46	75		76		96		105		105	
CCB 580-95377/30	11:50	76		77		96		104		106	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/14/2011 End Date: 09/14/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q	Element	Q
STD0 580-95377/1 IC	09:09	100		100		100					
STD1 580-95377/2 IC	09:14	100		100		99					
STD2 580-95377/3 IC	09:18	100		101		99					
STD3 580-95377/4 IC	09:22	100		101		99					
STD4 580-95377/5 IC	09:27	101		102		98					
STD5 580-95377/6 IC	09:31	99		100		96					
ICV 580-95377/7	09:35	100		101		98					
ICB 580-95377/8	09:40	102		102		101					
CRI 580-95377/9	09:44	100		102		100					
ICSA 580-95377/10	09:48	95		97		87					
ICSAB 580-95377/11	09:53	98		97		89					
CCV 580-95377/12	10:32	103		104		101					
CCB 580-95377/13	10:36	103		104		104					
580-28356-13	10:40	104		104							
580-28356-14	10:45	106		106							
580-28356-15	10:49	104		105							
580-28356-16	10:53	103		103							
580-28356-21	10:58	99		100							
580-28356-22	11:02	101		102							
580-28356-23	11:06	104		104							
580-28356-17	11:11			10							
580-28356-18	11:15			10							
580-28356-19	11:20			10							
CCV 580-95377/24	11:24	104		106		103					
CCB 580-95377/25	11:28	108		107		108					
580-28356-20	11:33			106							
CCV 580-95377/29	11:46	107		109		106					
CCB 580-95377/30	11:50	106		108		107					

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/15/2011 End Date: 09/16/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Bi	Q	Element Sc	Q	Element Ge	Q
STD0 580-95520/1 IC	15:29	100		100				100		100	
STD1 580-95520/2 IC	15:33	96		99				97		96	
STD2 580-95520/3 IC	15:37	98		101				99		97	
STD3 580-95520/4 IC	15:42	98		99				99		97	
STD4 580-95520/5 IC	15:46	99		101				100		98	
STD5 580-95520/6 IC	15:51	103		104				102		97	
ICV 580-95520/7	15:55	101		104				101		97	
ICB 580-95520/8	15:59	100		105				100		99	
CRI 580-95520/9	16:04	102		104				102		98	
ICSA 580-95520/10	16:08	111		112				104		95	
ICSAB 580-95520/11	16:12	108		110				103		95	
ICSA 580-95520/104	23:27	101		102				105		99	
ICSAB 580-95520/105	23:31	97		98				102		99	
CCV 580-95520/162	03:42	78		78				90		96	
CCB 580-95520/163	03:46	76		78				90		96	
MB 580-95447/18-A	03:51							88			
580-28356-12 SD	03:55	77		78				91			
580-28356-12	04:00							85			
580-28356-12 MS	04:04							83			
580-28356-12 MSD	04:08							84			
580-28356-12 PDS	04:12	7		79				82			
LCS 580-95447/19-A	04:17							84			
LCSD 580-95447/20-A	04:21							81			
LCSSRM	04:25							86			
CCV 580-95520/173	04:30	76		79				83		90	
CCB 580-95520/174	04:34	79		81				85		90	
580-28356-12	04:39										
CCV 580-95520/176	04:47	79		82				83		88	
CCB 580-95520/177	04:52	80		81				82		88	

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/15/2011 End Date: 09/16/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Rh	Q	Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q
STD0 580-95520/1 IC	15:29	100		100		100		100			
STD1 580-95520/2 IC	15:33	96		98		96		96			
STD2 580-95520/3 IC	15:37	97		99		98		97			
STD3 580-95520/4 IC	15:42	96		99		97		96			
STD4 580-95520/5 IC	15:46	94		98		97		94			
STD5 580-95520/6 IC	15:51	92		97		98		92			
ICV 580-95520/7	15:55	94		97		97		94			
ICB 580-95520/8	15:59	96		98		97		97			
CRI 580-95520/9	16:04	97		99		99		97			
ICSA 580-95520/10	16:08	85		93		93		83			
ICSAB 580-95520/11	16:12	84		93		92		83			
ICSA 580-95520/104	23:27	90		97		97		89			
ICSAB 580-95520/105	23:31	88		97		97		89			
CCV 580-95520/162	03:42	95		106		106		107			
CCB 580-95520/163	03:46	98		107		109		110			
MB 580-95447/18-A	03:51	96		10		108					
580-28356-12 SD	03:55	97		108		109					
580-28356-12	04:00	90		10		105					
580-28356-12 MS	04:04	90		10		104					
580-28356-12 MSD	04:08	90		103		104					
580-28356-12 PDS	04:12	89		103		104					
LCS 580-95447/19-A	04:17	93		106		107					
LCSD 580-95447/20-A	04:21	91		103		106					
LCSSRM	04:25	92		10		107					
CCV 580-95520/173	04:30	89		102		105		105			
CCB 580-95520/174	04:34	93		104		105		110			
580-28356-12	04:39					1					
CCV 580-95520/176	04:47	88		101		103		105			
CCB 580-95520/177	04:52	90		101		103		108			

Sample Name: Blank Acquired: 9/13/2011 13:56:25 Type: Cal
Method: 6010-2007Sept2011A Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-23.82**	**.6208**	**.0000**	**3.290**	**.0018**	**-.00013**	**-.0004**	**.0001**
Stddev	6.67	.8043	.000	.044	.0029	.00320	.0006	.0000
%RSD	28.01	129.6	54.02	1.337	164.5	2384.4	170.7	21.96
#1	-20.33	-.0500	.0000	3.338	-.0015	-.00270	-.0002	.0001
#2	-19.62	1.512	.0000	3.251	.0039	-.00115	-.0011	.0001
#3	-31.52	.4000	.0000	3.280	.0029	.00345	.0002	.0002

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0001**	**-.0001**	**-.0027**	**.0000**	**.0048**	**.0000**	**.0002**	**.0000**
Stddev	.0001	.0001	.0001	.0000	.0049	.000	.0001	.0000
%RSD	87.08	172.1	3.802	211.8	102.1	487.7	86.81	40.03
#1	.0001	-.0002	-.0026	.0000	.0012	-.0001	.0003	.0000
#2	.0000	.0001	-.0028	.0000	.0103	.0000	.0001	.0000
#3	.0002	-.0001	-.0027	.0000	.0028	.0000	.0001	.0000

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0553**	**.0019**	**.0010**	**.0000**	**.0001**	**-.0005**	**-.0004**	**.0008**
Stddev	.0019	.0004	.0003	.000	.0000	.0001	.0002	.0001
%RSD	3.446	20.19	34.82	152.7	27.13	28.27	42.35	6.381
#1	.0569	.0020	.0006	.0000	.0001	-.0004	-.0005	.0007
#2	.0558	.0023	.0013	.0000	.0001	-.0006	-.0002	.0009
#3	.0532	.0015	.0010	-.0001	.0001	-.0006	-.0004	.0008

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2264.1**	**21004.**	**260.07**	**740.55**
Stddev	5.8	45.	.77	8.98
%RSD	.25532	.21584	.29664	1.2123
#1	2257.5	20977.	259.28	741.98
#2	2266.7	20978.	260.11	748.72
#3	2268.2	21056.	260.83	730.94

Sample Name: LCS 580-95118/17-A Acquired: 9/13/2011 19:29:26 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6134**	**4.104**	**3.942**	**5.131**	**4.011**	**.09976**
Stddev	.0009	.135	.016	.012	.040	.00078
%RSD	.1525	3.278	.3966	.2404	.9962	.78012
#1	.6140	4.145	3.925	5.136	3.965	.09919
#2	.6139	3.954	3.954	5.141	4.032	.09945
#3	.6123	4.213	3.948	5.117	4.036	.10065

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.84**	**.0978**	**.9998**	**.4090**	**.4952**	**22.06**
Stddev	.23	.0005	.0036	.0019	.0020	.37
%RSD	1.179	.4794	.3602	.4537	.4049	1.680
#1	19.57	.0976	.9960	.4072	.4931	21.68
#2	19.96	.0975	1.000	.4088	.4956	22.08
#3	19.99	.0984	1.003	.4109	.4970	22.42

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.82**	**19.41**	**1.009**	**4.936**	**19.95**	**.9781**
Stddev	.15	.06	.003	.015	.27	.0038
%RSD	.7440	.3214	.3326	.2944	1.351	.3905
#1	19.67	19.37	1.006	4.920	19.66	.9739
#2	19.85	19.39	1.008	4.940	20.01	.9813
#3	19.96	19.48	1.013	4.948	20.19	.9792

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9550**	**2.923**	**3.816**	**3.858**	**1.003**	**.9731**
Stddev	.0043	.009	.007	.013	.004	.0030
%RSD	.4540	.2989	.1760	.3263	.3692	.3032
#1	.9519	2.914	3.811	3.844	.9999	.9698
#2	.9599	2.924	3.813	3.866	1.003	.9742
#3	.9530	2.931	3.823	3.865	1.007	.9754

Sample Name: LCS 580-95118/17-A Acquired: 9/13/2011 19:29:26 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2091.0	21534.	281.57	730.03
Stddev	7.1	101.	2.51	6.79
%RSD	.34151	.46891	.89266	.92995
#1	2099.2	21623.	284.29	737.28
#2	2087.7	21555.	279.33	723.82
#3	2086.1	21424.	281.09	728.99

Sample Name: CCV Acquired: 9/13/2011 21:26:43 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.009**	**9.876**	**4.830**	**2.450**	**2.332**	**.10184**
Stddev	.004	.074	.009	.004	.047	.00102
%RSD	.4276	.7507	.1921	.1628	2.024	1.0030
#1	1.005	9.921	4.822	2.452	2.335	.10299
#2	1.013	9.791	4.840	2.452	2.283	.10104
#3	1.009	9.918	4.828	2.445	2.378	.10150
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.34**	**.5031**	**.4955**	**.4876**	**.4808**	**9.861**
Stddev	.31	.0011	.0008	.0027	.0022	.088
%RSD	1.608	.2227	.1533	.5603	.4601	.8884
#1	19.13	.5018	.4954	.4845	.4783	9.839
#2	19.20	.5036	.4948	.4895	.4824	9.958
#3	19.70	.5039	.4963	.4889	.4816	9.787
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 21:26:43 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.79**	**19.62**	**.4915**	**.4853**	**13.86**	**.4670**
Stddev	.49	.09	.0036	.0006	.27	.0018
%RSD	2.585	.4677	.7294	.1140	1.940	.3937
#1	18.97	19.51	.4874	.4848	13.82	.4683
#2	18.24	19.67	.4936	.4852	13.61	.4678
#3	19.15	19.66	.4936	.4859	14.14	.4649
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.734**	**2.397**	**4.860**	**2.416**	**.4897**	**.4797**
Stddev	.006	.001	.008	.005	.0031	.0006
%RSD	.1318	.0295	.1605	.2105	.6333	.1219
#1	4.735	2.396	4.857	2.412	.4862	.4804
#2	4.739	2.398	4.869	2.414	.4919	.4793
#3	4.727	2.397	4.855	2.421	.4911	.4795
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 21:26:43 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2128.0**	**21207.**	**274.08**	**759.72**
Stddev	2.8	48.	6.88	15.82
%RSD	.13242	.22513	2.5103	2.0828
#1	2124.8	21250.	268.48	755.06
#2	2129.9	21214.	281.76	777.36
#3	2129.4	21156.	271.98	746.76

Sample Name: CalibStd1 00020 Acquired: 9/13/2011 14:03:13 Type: Cal
Method: 6010-2007Sept2011A Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1074.**	**6.642**	**.0082**	**428.4**	**.3715**	**.03542**	**.0242**	**.0172**
Stddev	5.	.905	.0000	1.2	.0047	.00370	.0013	.0001
%RSD	.4806	13.63	.5736	.2846	1.271	10.452	5.298	.3954
#1	1073.	5.900	.0082	427.3	.3700	.03592	.0251	.0171
#2	1070.	7.650	.0081	429.7	.3768	.03886	.0248	.0172
#3	1080.	6.375	.0082	428.2	.3677	.03150	.0227	.0172

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0178**	**.0225**	**.0168**	**.0006**	**.0949**	**.0745**	**.1492**	**.0072**
Stddev	.0001	.0001	.0003	.0000	.0058	.0001	.0002	.0000
%RSD	.6330	.4350	1.515	6.933	6.151	.1177	.1636	.6548
#1	.0179	.0224	.0167	.0005	.0976	.0745	.1490	.0072
#2	.0177	.0225	.0171	.0005	.0989	.0745	.1492	.0072
#3	.0178	.0226	.0167	.0006	.0882	.0744	.1494	.0071

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1824**	**.0534**	**.1531**	**.0052**	**.0066**	**.0320**	**.0388**	**.0229**
Stddev	.0019	.0011	.0013	.0001	.0000	.0003	.0003	.0000
%RSD	1.042	2.092	.8317	1.143	.2951	1.091	.6452	.2153
#1	.1827	.0546	.1545	.0051	.0066	.0316	.0385	.0229
#2	.1842	.0524	.1520	.0052	.0066	.0323	.0390	.0229
#3	.1804	.0531	.1528	.0052	.0066	.0321	.0390	.0229

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2231.7**	**21255.**	**268.26**	**728.21**
Stddev	3.9	25.	1.38	5.86
%RSD	.17642	.11869	.51393	.80517
#1	2227.1	21227.	267.28	731.53
#2	2233.8	21275.	267.65	721.44
#3	2234.0	21262.	269.83	731.65

Sample Name: CCB Acquired: 9/13/2011 23:39:27 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0001**	**.0572**	**.0019**	**.0077**	**.0024**	**.00001**
Stddev	.0002	.1401	.0008	.0005	.0010	.00062
%RSD	210.1	244.9	41.17	6.500	44.22	7811.5
#1	.0001	-.0968	.0023	.0083	.0035	.00037
#2	-.0001	.1772	.0025	.0074	.0023	.00036
#3	.0004	.0913	.0010	.0074	.0014	-.00071
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0618**	**.0000**	**.0001**	**.0000**	**.0010**	**.0471**
Stddev	.0896	.0001	.0002	.000	.0004	.0209
%RSD	144.9	297.0	169.9	628.7	42.91	44.41
#1	.0566	.0000	.0000	-.0002	.0011	.0609
#2	.1539	-.0001	.0003	.0001	.0014	.0230
#3	-.0251	.0001	.0000	.0000	.0005	.0575
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 23:39:27 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.3918**	**.0009**	**.0002**	**.0008**	**-.2663**	**.0003**
Stddev	.0594	.0023	.0001	.0003	.0537	.0003
%RSD	15.15	270.6	36.42	43.88	20.17	109.3
#1	.4152	.0015	.0001	.0004	-.2803	.0003
#2	.3242	.0028	.0003	.0008	-.2070	.0000
#3	.4358	-.0017	.0002	.0010	-.3117	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0018**	**.0025**	**-.0006**	**.0033**	**.0004**	**.0250**
Stddev	.0010	.0013	.0009	.0003	.0001	.0002
%RSD	54.34	51.34	152.5	8.831	21.28	.8250
#1	.0024	.0027	-.0015	.0034	.0005	.0250
#2	.0024	.0012	-.0005	.0035	.0003	.0248
#3	.0007	.0038	.0003	.0029	.0004	.0252
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 23:39:27 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2281.1	21837.	279.40	722.25
Stddev	7.0	18.	3.68	15.85
%RSD	.30557	.08033	1.3161	2.1942
#1	2279.3	21833.	275.48	704.05
#2	2288.8	21856.	279.95	729.67
#3	2275.2	21822.	282.77	733.02

Sample Name: CCB Acquired: 9/14/2011 0:43:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0001**	**.0363**	**.0030**	**.0037**	**-.0002**	**-.00063**
Stddev	.0003	.0982	.0015	.0001	.0010	.00193
%RSD	389.5	270.5	49.89	1.477	514.3	304.12
#1	-.0002	-.0440	.0037	.0037	-.0014	-.00279
#2	.0004	.1458	.0013	.0037	.0006	-.00005
#3	.0000	.0072	.0040	.0036	.0001	.00094
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**-.0113**	**.0002**	**-.0001**	**.0002**	**.0011**	**.0158**
Stddev	.0222	.0001	.0002	.0001	.0004	.0467
%RSD	196.5	44.58	244.5	66.08	33.37	295.3
#1	.0125	.0003	.0001	.0002	.0014	.0057
#2	-.0315	.0001	-.0001	.0003	.0012	-.0250
#3	-.0150	.0002	-.0002	.0001	.0007	.0668
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 0:43:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2473**	**.0021**	**.0004**	**.0003**	**-.2480**	**.0006**
Stddev	.0770	.0018	.0001	.0001	.0202	.0005
%RSD	31.13	87.70	17.99	31.52	8.143	73.12
#1	.1701	.0040	.0003	.0003	-.2654	.0009
#2	.2479	.0004	.0005	.0002	-.2259	.0009
#3	.3240	.0019	.0005	.0004	-.2529	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0023**	**.0018**	**.0006**	**.0034**	**.0000**	**.0003**
Stddev	.0008	.0017	.0004	.0004	.0001	.0003
%RSD	35.33	91.30	68.56	10.90	2355.	110.3
#1	.0026	-.0001	.0011	.0030	.0000	.0000
#2	.0014	.0030	.0003	.0034	-.0001	.0002
#3	.0028	.0026	.0004	.0037	.0001	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 0:43:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2307.8	22030.	284.77	751.10
Stddev	2.9	24.	3.42	7.51
%RSD	.12426	.10698	1.2004	.99945
#1	2310.2	22026.	288.72	755.06
#2	2304.6	22009.	282.82	755.81
#3	2308.6	22056.	282.77	742.45

Sample Name: CCB Acquired: 9/14/2011 1:52:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0000**	**-.0192**	**.0020**	**.0036**	**.0009**	**-.00005**
Stddev	.0001	.0454	.0024	.0003	.0012	.00049
%RSD	219.6	236.0	121.8	8.464	139.7	924.48
#1	.0000	-.0688	-.0008	.0039	-.0003	-.00005
#2	.0000	.0204	.0035	.0035	.0021	-.00055
#3	.0002	-.0093	.0033	.0034	.0007	.00044
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**-.0015**	**-.0001**	**.0001**	**.0001**	**.0005**	**.0068**
Stddev	.0534	.0001	.0000	.0002	.0002	.0273
%RSD	3502.	65.50	34.21	479.0	36.46	402.8
#1	-.0555	-.0001	.0002	.0000	.0003	.0329
#2	-.0004	-.0002	.0001	.0003	.0007	-.0216
#3	.0513	-.0001	.0002	-.0002	.0006	.0090
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 1:52:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.3148**	**.0072**	**.0003**	**.0002**	**-.2183**	**.0003**
Stddev	.0666	.0030	.0000	.0002	.0230	.0004
%RSD	21.16	42.02	7.079	144.8	10.54	140.2
#1	.2740	.0038	.0003	.0004	-.1934	-.0001
#2	.2787	.0086	.0003	-.0001	-.2229	.0007
#3	.3916	.0094	.0003	.0002	-.2387	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0003**	**.0013**	**-.0026**	**.0018**	**.0003**	**.0001**
Stddev	.0018	.0011	.0030	.0009	.0003	.0003
%RSD	613.3	88.16	115.8	51.12	97.70	404.4
#1	.0023	.0025	-.0054	.0029	.0000	-.0001
#2	-.0005	.0004	-.0030	.0010	.0005	-.0001
#3	-.0009	.0010	.0006	.0016	.0004	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 1:52:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2304.1	22045.	284.41	753.21
Stddev	3.9	34.	2.96	5.18
%RSD	.17066	.15247	1.0408	.68757
#1	2307.6	22006.	282.70	748.79
#2	2299.9	22065.	282.69	751.92
#3	2304.8	22064.	287.83	758.91

Sample Name: 580-28299-D-1-E MSD Acquired: 9/14/2011 2:53:23 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6261**	**4.086**	**3.993**	**5.360**	**3.983**	**.09827**
Stddev	.0003	.120	.004	.009	.033	.00228
%RSD	.0410	2.947	.0877	.1612	.8364	2.3226
#1	.6264	4.009	3.991	5.355	4.018	.09964
#2	.6261	4.025	3.990	5.370	3.952	.09954
#3	.6259	4.225	3.997	5.356	3.978	.09564

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**78.25**	**.0956**	**.9572**	**.3946**	**.4798**	**21.69**
Stddev	.50	.0008	.0019	.0037	.0025	.40
%RSD	.6433	.8668	.1954	.9443	.5162	1.842
#1	78.80	.0947	.9554	.3910	.4790	21.41
#2	78.13	.0957	.9570	.3945	.4778	21.52
#3	77.81	.0963	.9591	.3984	.4826	22.15

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**20.18**	**37.44**	**.9646**	**4.717**	**25.44**	**.9778**
Stddev	.38	.16	.0040	.011	.15	.0016
%RSD	1.882	.4232	.4156	.2216	.5990	.1677
#1	20.61	37.33	.9614	4.706	25.61	.9795
#2	19.89	37.37	.9633	4.718	25.32	.9762
#3	20.03	37.62	.9691	4.727	25.38	.9776

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9642**	**2.932**	**3.926**	**3.891**	**.9630**	**.9741**
Stddev	.0026	.010	.003	.014	.0051	.0012
%RSD	.2730	.3384	.0765	.3546	.5304	.1220
#1	.9612	2.924	3.929	3.878	.9590	.9729
#2	.9659	2.928	3.923	3.889	.9614	.9753
#3	.9656	2.943	3.926	3.905	.9688	.9741

Sample Name: 580-28299-D-1-E MSD Acquired: 9/14/2011 2:53:23 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2057.0	21955.	293.18	745.32
Stddev	6.1	86.	3.83	7.97
%RSD	.29473	.38949	1.3070	1.0699
#1	2050.6	22021.	290.48	736.33
#2	2062.7	21986.	291.49	751.54
#3	2057.8	21858.	297.57	748.09

Sample Name: 580-28378-A-4-A Acquired: 9/14/2011 3:58:23 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0001	-.0989	.0022	.1079	.0444	.00082
Stddev	.0004	.0926	.0002	.0008	.0006	.00071
%RSD	445.8	93.59	10.39	.7483	1.367	86.071
#1	-.0004	-.2014	.0023	.1084	.0440	.00042
#2	.0003	-.0213	.0020	.1069	.0441	.00041
#3	.0003	-.0741	.0024	.1083	.0451	.00164

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	28.71	-.0004	.0005	.0005	.0024	11.00
Stddev	.44	.0001	.0001	.0001	.0002	.14
%RSD	1.519	24.39	20.27	22.63	9.748	1.257
#1	28.30	-.0004	.0006	.0006	.0025	10.85
#2	28.66	-.0004	.0004	.0005	.0026	11.11
#3	29.17	-.0003	.0004	.0004	.0021	11.06

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	9.234	9.809	1.409	.0008	15.98	.0014
Stddev	.239	.030	.004	.0001	.22	.0004
%RSD	2.593	.3092	.3174	8.613	1.386	31.14
#1	8.968	9.775	1.404	.0009	15.72	.0011
#2	9.433	9.831	1.412	.0009	16.11	.0019
#3	9.301	9.822	1.410	.0008	16.09	.0012

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0050	.0006	-.0025	.0002	.0018	.0063
Stddev	.0022	.0013	.0011	.0021	.0001	.0001
%RSD	43.82	206.0	44.48	893.7	6.803	1.039
#1	.0028	-.0009	-.0026	.0015	.0017	.0063
#2	.0050	.0015	-.0014	-.0021	.0019	.0064
#3	.0071	.0013	-.0036	.0013	.0018	.0063

Sample Name: 580-28378-A-4-A Acquired: 9/14/2011 3:58:23 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2213.6	22585.	304.37	774.26
Stddev	6.9	71.	.97	11.98
%RSD	.31065	.31408	.31738	1.5475
#1	2207.4	22665.	303.72	787.96
#2	2212.3	22559.	305.48	769.03
#3	2221.0	22531.	303.92	765.78

Sample Name: CRI 00020 Acquired: 9/14/2011 4:54:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0215**	**1.457**	**.0612**	**2.593**	**.0111**	**.00465**
Stddev	.0001	.065	.0013	.002	.0007	.00018
%RSD	.6416	4.475	2.165	.0869	6.277	3.8434
#1	.0215	1.455	.0601	2.593	.0117	.00470
#2	.0217	1.393	.0610	2.591	.0103	.00480
#3	.0214	1.523	.0627	2.595	.0113	.00445
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.189**	**.0096**	**.0101**	**.0257**	**.0215**	**.2285**
Stddev	.142	.0001	.0001	.0001	.0002	.0573
%RSD	11.94	1.504	.5098	.4913	.7347	25.09
#1	1.088	.0095	.0101	.0259	.0215	.2937
#2	1.128	.0095	.0101	.0257	.0215	.2058
#3	1.351	.0097	.0102	.0256	.0217	.1860
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 00020 Acquired: 9/14/2011 4:54:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**3.142**	**1.094**	**.0206**	**.0238**	**1.866**	**.0207**
Stddev	.135	.003	.0001	.0001	.066	.0003
%RSD	4.289	.2657	.5237	.5066	3.549	1.229
#1	3.198	1.092	.0205	.0238	1.905	.0209
#2	3.239	1.097	.0206	.0237	1.902	.0204
#3	2.988	1.093	.0207	.0239	1.789	.0208
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0301**	**.0590**	**.0983**	**.0977**	**.0233**	**.0477**
Stddev	.0020	.0013	.0010	.0024	.0003	.0002
%RSD	6.817	2.170	1.011	2.427	1.094	.3988
#1	.0304	.0604	.0972	.0991	.0230	.0475
#2	.0279	.0584	.0987	.0990	.0235	.0479
#3	.0319	.0581	.0991	.0950	.0234	.0476
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 00020 Acquired: 9/14/2011 4:54:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2248.9	22766.	304.68	730.17
Stddev	9.5	46.	1.39	10.30
%RSD	.42399	.20077	.45536	1.4104
#1	2243.5	22819.	304.80	735.50
#2	2243.3	22740.	303.23	718.30
#3	2259.9	22740.	306.00	736.72

Sample Name: CalibStd-2 00022 Acquired: 9/13/2011 14:10:02 Type: Cal
Method: 6010-2007Sept2011A Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5388.**	**31.35**	**.0422**	**2184.**	**1.852**	**.17068**	**.1115**	**.0850**
Stddev	8.	.31	.0001	1.	.019	.00831	.0022	.0002
%RSD	.1459	.9992	.1829	.0535	1.029	4.8670	1.991	.2529
#1	5385.	31.05	.0423	2183.	1.830	.17460	.1094	.0851
#2	5397.	31.68	.0422	2186.	1.866	.16113	.1138	.0847
#3	5382.	31.33	.0422	2184.	1.859	.17630	.1114	.0851

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0884**	**.1137**	**.0928**	**.0027**	**.4286**	**.3686**	**.7364**	**.0359**
Stddev	.0001	.0001	.0002	.0000	.0130	.0007	.0014	.0002
%RSD	.1101	.0849	.2645	1.015	3.035	.1981	.1963	.4412
#1	.0883	.1137	.0927	.0027	.4142	.3678	.7349	.0360
#2	.0885	.1137	.0927	.0027	.4394	.3692	.7378	.0358
#3	.0885	.1136	.0931	.0027	.4322	.3688	.7366	.0357

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.7019**	**.2654**	**.7836**	**.0261**	**.0338**	**.1663**	**.1962**	**.0948**
Stddev	.0107	.0013	.0023	.0001	.0000	.0003	.0004	.0003
%RSD	1.525	.4921	.2948	.3166	.0453	.1535	.1937	.2744
#1	.6895	.2669	.7814	.0261	.0338	.1660	.1958	.0950
#2	.7085	.2645	.7860	.0260	.0338	.1665	.1966	.0948
#3	.7076	.2648	.7835	.0261	.0338	.1664	.1962	.0945

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2133.5**	**21184.**	**276.93**	**730.91**
Stddev	1.5	27.	3.96	7.89
%RSD	.06847	.12903	1.4306	1.0793
#1	2131.9	21161.	281.22	737.84
#2	2134.8	21214.	276.17	722.33
#3	2133.6	21175.	273.40	732.58

Sample Name: CalibStd-3 00020 Acquired: 9/13/2011 14:16:35 Type: Cal
Method: 6010-2007Sept2011A Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**25660.**	**148.4**	**.2079**	**10430.**	**9.202**	**.84463**	**.5407**	**.4060**
Stddev	27.	4.9	.0005	22.	.035	.01433	.0081	.0014
%RSD	.1053	3.299	.2505	.2089	.3785	1.6963	1.491	.3503
#1	25630.	143.8	.2077	10410.	9.189	.86100	.5345	.4059
#2	25680.	153.5	.2075	10430.	9.241	.83437	.5498	.4047
#3	25660.	147.9	.2085	10450.	9.175	.83851	.5378	.4075

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.4194**	**.5429**	**.4557**	**.0131**	**2.103**	**1.766**	**3.522**	**.1750**
Stddev	.0013	.0008	.0006	.0001	.006	.003	.004	.0006
%RSD	.3200	.1508	.1385	.8628	.2925	.1722	.1282	.3268
#1	.4189	.5432	.4556	.0132	2.103	1.764	3.518	.1747
#2	.4185	.5420	.4552	.0132	2.096	1.765	3.520	.1746
#3	.4210	.5435	.4565	.0130	2.109	1.770	3.527	.1756

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.235**	**1.310**	**3.878**	**.1275**	**.1659**	**.8148**	**.9536**	**.4547**
Stddev	.013	.003	.012	.0003	.0006	.0025	.0012	.0011
%RSD	.4028	.1882	.3046	.2555	.3457	.3097	.1229	.2354
#1	3.239	1.307	3.875	.1273	.1658	.8134	.9535	.4540
#2	3.246	1.311	3.868	.1274	.1654	.8133	.9524	.4542
#3	3.221	1.312	3.891	.1279	.1665	.8177	.9547	.4560

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1988.4**	**20699.**	**272.75**	**716.94**
Stddev	.5	33.	2.77	3.91
%RSD	.02379	.15892	1.0159	.54481
#1	1988.1	20685.	270.35	715.66
#2	1989.0	20736.	275.78	721.33
#3	1988.2	20675.	272.12	713.84

Sample Name: CalibStd-4 00020 Acquired: 9/13/2011 14:23:04 Type: Cal
Method: 6010-2007Sept2011A Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130	Ca3158	Cd2265
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**51430.**	**303.2**	**.4229**	**20700.**	**19.18**	**1.7288**	**1.106**	**.8037**
Stddev	112.	2.6	.0023	45.	.15	.0081	.008	.0058
%RSD	.2177	.8535	.5466	.2169	.7918	.46834	.7498	.7226
#1	51310.	306.2	.4218	20730.	19.02	1.7298	1.098	.7999
#2	51460.	301.3	.4256	20730.	19.20	1.7202	1.106	.8104
#3	51520.	302.3	.4213	20650.	19.32	1.7363	1.115	.8008

Elem	Co2286	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.8298**	**1.093**	**.9203**	**.0269**	**4.365**	**3.549**	**7.013**	**.3498**
Stddev	.0044	.008	.0077	.0003	.021	.022	.049	.0020
%RSD	.5337	.7397	.8351	1.040	.4905	.6300	.6943	.5580
#1	.8276	1.084	.9115	.0266	4.351	3.524	6.958	.3483
#2	.8349	1.099	.9255	.0271	4.355	3.568	7.050	.3520
#3	.8269	1.097	.9239	.0270	4.390	3.554	7.032	.3490

Elem	Na5895	Ni2316	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**6.658**	**2.689**	**8.039**	**.2577**	**.3369**	**1.641**	**1.913**	**.9161**
Stddev	.044	.017	.055	.0013	.0018	.011	.014	.0041
%RSD	.6598	.6294	.6775	.4928	.5316	.6959	.7213	.4469
#1	6.620	2.694	8.040	.2568	.3361	1.642	1.899	.9137
#2	6.649	2.704	8.093	.2592	.3390	1.652	1.926	.9208
#3	6.706	2.671	7.984	.2571	.3356	1.629	1.915	.9137

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1891.3**	**20471.**	**267.11**	**698.39**
Stddev	8.3	98.	1.53	3.43
%RSD	.43775	.48053	.57124	.49111
#1	1889.5	20565.	266.93	701.30
#2	1884.1	20369.	268.72	699.27
#3	1900.4	20478.	265.68	694.61

Sample Name: ICV 200.7 00015 Acquired: 9/13/2011 14:29:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5307**	**5.154**	**2.455**	**10.30**	**.2420**	**.26124**
Stddev	.0010	.141	.006	.02	.0030	.00271
%RSD	.1904	2.735	.2381	.1866	1.254	1.0388
#1	.5317	5.026	2.461	10.31	.2440	.25877
#2	.5308	5.305	2.450	10.28	.2385	.26081
#3	.5297	5.130	2.452	10.31	.2433	.26415
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**5.105**	**.2620**	**.5192**	**.9970**	**1.011**	**5.070**
Stddev	.062	.0003	.0004	.0061	.004	.096
%RSD	1.220	.1186	.0688	.6143	.4252	1.901
#1	5.119	.2622	.5191	1.003	1.016	4.961
#2	5.037	.2616	.5196	.9977	1.012	5.104
#3	5.159	.2621	.5189	.9906	1.007	5.144
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICV 200.7 00015 Acquired: 9/13/2011 14:29:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**14.61**	**5.132**	**1.032**	**.5034**	**9.783**	**.9642**
Stddev	.14	.014	.004	.0006	.043	.0013
%RSD	.9347	.2725	.3877	.1267	.4426	.1393
#1	14.51	5.140	1.036	.5029	9.735	.9638
#2	14.55	5.140	1.032	.5041	9.795	.9630
#3	14.76	5.116	1.028	.5032	9.819	.9656
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9760**	**2.465**	**4.982**	**4.939**	**.5055**	**.7463**
Stddev	.0055	.006	.008	.011	.0013	.0007
%RSD	.5587	.2325	.1579	.2260	.2495	.0901
#1	.9810	2.472	4.990	4.947	.5066	.7468
#2	.9767	2.461	4.974	4.926	.5059	.7455
#3	.9702	2.464	4.983	4.944	.5041	.7466
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICV 200.7 00015 Acquired: 9/13/2011 14:29:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2171.0	21139.	266.85	739.32
Stddev	3.1	29.	2.06	.95
%RSD	.14336	.13833	.77012	.12851
#1	2173.2	21125.	269.06	739.71
#2	2167.4	21120.	266.51	738.24
#3	2172.4	21173.	264.99	740.01

Sample Name: ICB_CCB Acquired: 9/13/2011 14:38:40 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0003**	**.0490**	**.0011**	**.0117**	**.0009**	**-.00055**
Stddev	.0003	.2681	.0007	.0007	.0014	.00073
%RSD	102.9	547.5	66.07	6.382	157.5	132.56
#1	.0003	-.2371	.0017	.0124	.0002	-.00031
#2	.0006	.2943	.0012	.0118	.0000	.00003
#3	.0000	.0897	.0003	.0109	.0025	-.00136
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0220**	**-.0001**	**.0000**	**.0000**	**.0004**	**-.0309**
Stddev	.0324	.0001	.000	.0002	.0001	.0353
%RSD	147.5	63.96	570.2	958.5	18.48	114.2
#1	-.0051	-.0001	-.0002	.0001	.0004	.0031
#2	.0579	-.0002	.0000	-.0002	.0004	-.0673
#3	.0131	-.0001	.0001	.0002	.0005	-.0285
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 9/13/2011 14:38:40 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0690**	**.0015**	**.0000**	**.0002**	**.0054**	**.0003**
Stddev	.0519	.0014	.0000	.0003	.0553	.0006
%RSD	75.31	93.83	62.79	150.4	1019.	177.6
#1	.1177	.0000	.0000	-.0001	-.0387	-.0002
#2	.0749	.0018	.0001	.0003	.0674	.0003
#3	.0143	.0028	.0000	.0003	-.0124	.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0002**	**.0014**	**-.0022**	**.0028**	**-.0002**	**-.0001**
Stddev	.0014	.0016	.0002	.0011	.0002	.0002
%RSD	623.7	112.8	10.72	40.15	162.2	145.9
#1	-.0005	.0018	-.0022	.0016	.0000	.0001
#2	.0019	-.0004	-.0024	.0039	-.0004	-.0002
#3	-.0007	.0027	-.0019	.0029	.0000	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 9/13/2011 14:38:40 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2281.7	21289.	269.79	744.26
Stddev	4.7	44.	2.35	8.82
%RSD	.20573	.20719	.87006	1.1848
#1	2276.3	21339.	270.70	737.12
#2	2285.1	21259.	271.55	754.12
#3	2283.6	21268.	267.13	741.53

Sample Name: CRI 00020 Acquired: 9/13/2011 14:45:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0214**	**1.307**	**.0656**	**2.596**	**.0111**	**.00593**
Stddev	.0003	.048	.0008	.009	.0012	.00121
%RSD	1.375	3.642	1.261	.3660	10.68	20.394
#1	.0217	1.268	.0648	2.601	.0118	.00533
#2	.0214	1.294	.0655	2.603	.0117	.00514
#3	.0211	1.360	.0664	2.585	.0097	.00732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.223**	**.0109**	**.0107**	**.0261**	**.0215**	**.1946**
Stddev	.122	.0000	.0001	.0002	.0005	.0373
%RSD	10.01	.3217	.8302	.6207	2.446	19.19
#1	1.083	.0109	.0108	.0260	.0219	.1595
#2	1.312	.0109	.0106	.0260	.0209	.1904
#3	1.272	.0109	.0107	.0263	.0217	.2338
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 00020 Acquired: 9/13/2011 14:45:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**2.935**	**1.204**	**.0219**	**.0253**	**2.015**	**.0204**
Stddev	.096	.004	.0001	.0005	.066	.0003
%RSD	3.252	.3378	.3696	1.887	3.255	1.402
#1	2.926	1.208	.0220	.0258	2.005	.0201
#2	2.845	1.200	.0218	.0251	1.955	.0206
#3	3.035	1.202	.0220	.0249	2.085	.0205
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0310**	**.0624**	**.1056**	**.1030**	**.0252**	**.0498**
Stddev	.0001	.0011	.0009	.0019	.0000	.0002
%RSD	.2094	1.765	.8875	1.832	.1171	.4174
#1	.0309	.0621	.1046	.1051	.0252	.0500
#2	.0310	.0637	.1065	.1015	.0252	.0497
#3	.0310	.0615	.1058	.1023	.0252	.0496
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 00020 Acquired: 9/13/2011 14:45:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2234.7	21172.	264.59	747.39
Stddev	3.0	52.	.63	5.75
%RSD	.13450	.24431	.23842	.76929
#1	2234.1	21135.	263.98	747.50
#2	2237.9	21231.	264.53	753.08
#3	2232.0	21149.	265.24	741.59

Sample Name: HIGH STD 00020 Acquired: 9/13/2011 14:54:57 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**3.980**	**39.80**	**19.92**	**9.555**	**9.535**	**.40300**
Stddev	.009	.13	.01	.020	.105	.01359
%RSD	.2233	.3184	.0674	.2110	1.104	3.3716
#1	3.976	39.86	19.94	9.532	9.418	.39234
#2	3.991	39.66	19.91	9.561	9.566	.41830
#3	3.975	39.89	19.92	9.571	9.621	.39837
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**78.15**	**2.035**	**1.986**	**1.945**	**1.977**	**39.95**
Stddev	.84	.005	.003	.011	.010	.20
%RSD	1.078	.2494	.1297	.5433	.4932	.4929
#1	77.20	2.040	1.989	1.952	1.986	40.16
#2	78.49	2.035	1.984	1.950	1.978	39.92
#3	78.77	2.030	1.987	1.933	1.966	39.77
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: HIGH STD 00020 Acquired: 9/13/2011 14:54:57 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**77.16**	**79.97**	**1.969**	**1.988**	**57.00**	**1.965**
Stddev	.66	.29	.007	.001	.71	.002
%RSD	.8563	.3645	.3835	.0486	1.250	.0851
#1	76.50	80.22	1.975	1.989	56.18	1.965
#2	77.16	80.04	1.970	1.987	57.33	1.963
#3	77.82	79.65	1.960	1.989	57.49	1.966
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**20.18**	**10.02**	**20.16**	**9.919**	**1.999**	**1.982**
Stddev	.03	.00	.05	.025	.009	.003
%RSD	.1596	.0140	.2241	.2545	.4453	.1266
#1	20.22	10.02	20.21	9.946	2.006	1.985
#2	20.16	10.02	20.14	9.915	2.002	1.980
#3	20.16	10.02	20.13	9.897	1.989	1.982
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: HIGH STD 00020 Acquired: 9/13/2011 14:54:57 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1930.7	20333.	263.60	736.96
Stddev	4.7	72.	3.62	5.39
%RSD	.24555	.35187	1.3746	.73159
#1	1925.2	20253.	265.68	741.14
#2	1932.9	20354.	259.41	738.86
#3	1933.8	20392.	265.70	730.87

Sample Name: ICSA 00036 Acquired: 9/13/2011 15:03:49 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0022**	**494.7**	**-.0033**	**.0125**	**.0028**	**-.00018**
Stddev	.0002	3.0	.0044	.0009	.0010	.00111
%RSD	7.649	.5968	132.8	7.091	37.28	632.80
#1	-.0023	494.7	-.0053	.0134	.0032	-.00086
#2	-.0021	491.7	.0017	.0122	.0036	-.00077
#3	-.0020	497.6	-.0063	.0117	.0016	.00111
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**476.3**	**-.0064**	**.0003**	**.0025**	**.0115**	**198.4**
Stddev	3.1	.0001	.0001	.0003	.0004	.9
%RSD	.6472	1.349	25.16	12.94	3.585	.4752
#1	479.9	-.0065	.0003	.0023	.0113	198.7
#2	474.5	-.0064	.0004	.0025	.0113	197.3
#3	474.5	-.0063	.0004	.0029	.0120	199.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA 00036 Acquired: 9/13/2011 15:03:49 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.3870**	**490.4**	**.0134**	**.0003**	**.7370**	**.0029**
Stddev	.1023	.9	.0001	.0005	.0185	.0005
%RSD	26.42	.1802	1.069	179.1	2.516	16.22
#1	.4652	491.3	.0134	-.0003	.7558	.0027
#2	.2713	489.6	.0135	.0006	.7187	.0026
#3	.4245	490.2	.0132	.0004	.7364	.0035
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**-.0003**	**-.0146**	**.0147**	**.0036**	**.0028**	**-.0170**
Stddev	.0014	.0023	.0042	.0060	.0000	.0006
%RSD	482.7	16.02	28.64	164.7	.7957	3.522
#1	.0012	-.0166	.0119	.0039	.0028	-.0170
#2	-.0004	-.0152	.0127	.0096	.0028	-.0164
#3	-.0017	-.0121	.0196	-.0025	.0028	-.0176
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA 00036 Acquired: 9/13/2011 15:03:49 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1734.2	19182.	260.43	695.75
Stddev	2.8	24.	1.01	3.91
%RSD	.16271	.12659	.38785	.56235
#1	1731.1	19181.	259.95	691.60
#2	1735.2	19207.	261.60	696.27
#3	1736.5	19159.	259.76	699.37

Sample Name: ICSAB 00028 Acquired: 9/13/2011 15:13:17 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**2.974**	**488.6**	**10.32**	**4.617**	**2.927**	**.99366**
Stddev	.007	3.3	.00	.013	.022	.01050
%RSD	.2418	.6723	.0474	.2856	.7383	1.0565
#1	2.967	491.8	10.31	4.607	2.944	.99275
#2	2.981	485.2	10.32	4.613	2.902	.98364
#3	2.973	488.9	10.32	4.632	2.934	1.0046
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**466.5**	**2.850**	**2.798**	**2.870**	**3.119**	**200.3**
Stddev	3.1	.004	.002	.009	.013	1.7
%RSD	.6576	.1585	.0727	.3017	.4312	.8565
#1	468.7	2.847	2.796	2.878	3.129	202.2
#2	463.0	2.847	2.797	2.872	3.125	198.9
#3	467.8	2.855	2.800	2.861	3.104	199.9
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB 00028 Acquired: 9/13/2011 15:13:17 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**200.4**	**494.4**	**1.939**	**2.886**	**-.1788**	**2.936**
Stddev	1.1	.2	.006	.004	.0650	.004
%RSD	.5722	.0451	.3172	.1397	36.37	.1458
#1	201.1	494.5	1.943	2.884	-.2517	2.941
#2	199.1	494.1	1.941	2.882	-.1267	2.934
#3	201.0	494.5	1.932	2.890	-.1580	2.933
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	None	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**9.989**	**10.11**	**5.102**	**9.587**	**2.952**	**3.017**
Stddev	.015	.01	.010	.011	.004	.002
%RSD	.1460	.0978	.1998	.1110	.1444	.0604
#1	10.01	10.12	5.093	9.575	2.949	3.016
#2	9.978	10.10	5.098	9.591	2.957	3.016
#3	9.985	10.12	5.113	9.595	2.949	3.019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB 00028 Acquired: 9/13/2011 15:13:17 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1664.9	18790.	263.69	709.30
Stddev	5.4	29.	2.14	2.81
%RSD	.32205	.15202	.81205	.39562
#1	1659.3	18759.	264.58	707.88
#2	1665.3	18796.	265.25	712.53
#3	1670.0	18815.	261.25	707.49

Sample Name: CCV 00033 Acquired: 9/13/2011 15:19:54 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.017**	**10.04**	**4.928**	**2.489**	**2.395**	**.10362**
Stddev	.001	.16	.009	.007	.006	.00144
%RSD	.0459	1.564	.1816	.2664	.2413	1.3910
#1	1.017	9.969	4.920	2.482	2.390	.10196
#2	1.017	9.939	4.938	2.495	2.393	.10434
#3	1.017	10.22	4.927	2.491	2.401	.10455
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.72**	**.5134**	**.5059**	**.4921**	**.4889**	**9.887**
Stddev	.12	.0019	.0011	.0016	.0012	.117
%RSD	.6276	.3631	.2162	.3162	.2501	1.187
#1	19.64	.5116	.5050	.4933	.4903	9.915
#2	19.86	.5132	.5056	.4904	.4882	9.758
#3	19.65	.5153	.5071	.4926	.4881	9.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 00033 Acquired: 9/13/2011 15:19:54 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.54**	**20.02**	**.4964**	**.4966**	**14.39**	**.4765**
Stddev	.08	.02	.0012	.0007	.08	.0018
%RSD	.3843	.1095	.2418	.1391	.5829	.3817
#1	19.61	20.01	.4972	.4959	14.45	.4774
#2	19.46	20.01	.4950	.4965	14.29	.4778
#3	19.57	20.04	.4970	.4973	14.42	.4744
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.866**	**2.457**	**4.986**	**2.469**	**.4961**	**.4889**
Stddev	.010	.004	.004	.004	.0006	.0002
%RSD	.2123	.1616	.0818	.1422	.1298	.0401
#1	4.866	2.453	4.982	2.465	.4965	.4887
#2	4.855	2.457	4.990	2.472	.4954	.4891
#3	4.876	2.461	4.987	2.469	.4965	.4888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 00033 Acquired: 9/13/2011 15:19:54 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2117.5	21160.	268.96	740.15
Stddev	6.2	18.	3.13	4.22
%RSD	.29289	.08409	1.1655	.56952
#1	2110.4	21148.	267.79	736.04
#2	2120.1	21180.	266.58	744.46
#3	2122.0	21151.	272.51	739.93

Sample Name: ICB_CCB Acquired: 9/13/2011 15:26:20 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0002**	**-.0351**	**.0014**	**.0108**	**.0011**	**.00018**
Stddev	.0001	.1130	.0010	.0007	.0011	.00084
%RSD	52.09	321.6	72.10	6.217	101.1	472.93
#1	.0003	-.1397	.0020	.0108	.0000	-.00074
#2	.0003	.0848	.0020	.0102	.0011	.00090
#3	.0001	-.0506	.0002	.0115	.0022	.00038
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**-.0438**	**.0003**	**.0003**	**.0000**	**.0005**	**-.0367**
Stddev	.0557	.0000	.0002	.0001	.0002	.0355
%RSD	127.2	4.886	84.05	1081.	45.68	96.72
#1	-.0593	.0003	.0004	.0001	.0006	-.0038
#2	.0180	.0003	.0000	.0000	.0002	-.0320
#3	-.0901	.0003	.0004	-.0001	.0006	-.0743
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 9/13/2011 15:26:20 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2892**	**.0211**	**.0001**	**.0005**	**.0193**	**.0003**
Stddev	.0628	.0051	.0000	.0002	.0235	.0004
%RSD	21.70	24.01	21.27	34.27	121.7	127.5
#1	.2385	.0158	.0001	.0003	.0258	.0005
#2	.2697	.0259	.0002	.0006	.0390	.0007
#3	.3594	.0216	.0002	.0006	-.0067	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0039**	**.0013**	**.0008**	**.0044**	**.0003**	**.0002**
Stddev	.0005	.0011	.0008	.0011	.0000	.0001
%RSD	13.45	83.59	97.94	25.17	12.94	60.56
#1	.0045	.0001	.0016	.0048	.0002	.0003
#2	.0039	.0023	.0000	.0052	.0003	.0002
#3	.0034	.0015	.0007	.0031	.0003	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 9/13/2011 15:26:20 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2296.6	21243.	269.83	747.88
Stddev	4.8	34.	1.29	2.37
%RSD	.20775	.16118	.47885	.31627
#1	2293.5	21208.	271.08	750.54
#2	2294.2	21245.	268.50	746.00
#3	2302.1	21276.	269.93	747.11

Sample Name: MB 580-95113/21-A Acquired: 9/13/2011 15:35:44 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0002**	**-.1194**	**.0000**	**.0069**	**.0003**	**.00006**
Stddev	.0002	.0231	.000	.0002	.0013	.00193
%RSD	83.44	19.38	1995.	2.463	473.6	3460.5
#1	.0001	-.1265	.0002	.0070	.0016	-.00217
#2	.0001	-.0935	-.0002	.0068	-.0010	.00108
#3	.0005	-.1381	.0000	.0067	.0002	.00126

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0257**	**.0000**	**-.0002**	**.0003**	**.0007**	**-.0084**
Stddev	.0665	.000	.0002	.0001	.0001	.0482
%RSD	258.3	216.0	84.93	16.48	10.50	573.5
#1	.0529	.0000	.0000	.0004	.0006	-.0534
#2	-.0500	-.0001	-.0002	.0003	.0008	.0425
#3	.0743	.0000	-.0004	.0004	.0008	-.0143

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2133**	**.0111**	**.0009**	**.0001**	**-.0470**	**.0003**
Stddev	.0312	.0019	.0000	.0001	.0340	.0003
%RSD	14.65	17.35	3.918	74.29	72.34	102.5
#1	.1782	.0121	.0008	.0002	-.0555	.0001
#2	.2382	.0123	.0009	.0000	-.0760	.0001
#3	.2234	.0089	.0008	.0002	-.0096	.0007

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0028**	**.0008**	**-.0019**	**.0018**	**-.0001**	**.0109**
Stddev	.0004	.0018	.0009	.0009	.0002	.0001
%RSD	14.36	218.2	48.73	48.45	216.9	1.061
#1	.0031	-.0002	-.0028	.0025	-.0003	.0108
#2	.0029	.0030	-.0009	.0021	.0000	.0109
#3	.0023	-.0002	-.0020	.0008	.0001	.0110

Sample Name: MB 580-95113/21-A Acquired: 9/13/2011 15:35:44 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2273.2	21110.	266.03	744.95
Stddev	6.4	3.	1.49	2.47
%RSD	.28302	.01275	.56153	.33130
#1	2265.7	21111.	264.62	745.84
#2	2277.0	21111.	267.59	746.86
#3	2276.7	21106.	265.87	742.17

Sample Name: LCS 580-95113/22-A Acquired: 9/13/2011 15:42:38 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.5934	3.878	3.874	5.007	3.842	.09931
Stddev	.0019	.195	.005	.006	.009	.00095
%RSD	.3240	5.037	.1199	.1217	.2280	.96140
#1	.5924	3.898	3.880	5.011	3.846	.10019
#2	.5923	4.063	3.872	5.011	3.832	.09944
#3	.5957	3.674	3.871	5.000	3.847	.09830

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	19.29	.0980	.9908	.3961	.4891	21.42
Stddev	.17	.0001	.0011	.0017	.0023	.28
%RSD	.9004	.0621	.1103	.4294	.4632	1.284
#1	19.18	.0980	.9898	.3942	.4884	21.37
#2	19.20	.0981	.9920	.3966	.4874	21.71
#3	19.49	.0980	.9907	.3974	.4917	21.17

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	19.12	19.09	.9957	4.889	19.04	.9557
Stddev	.05	.05	.0038	.004	.03	.0025
%RSD	.2765	.2755	.3860	.0782	.1703	.2608
#1	19.10	19.04	.9927	4.887	19.05	.9563
#2	19.07	19.07	.9944	4.887	19.00	.9578
#3	19.18	19.14	1.000	4.894	19.06	.9529

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.9437	2.886	3.789	3.795	.9896	.9769
Stddev	.0024	.007	.002	.006	.0035	.0002
%RSD	.2512	.2504	.0644	.1561	.3542	.0245
#1	.9427	2.889	3.790	3.794	.9862	.9771
#2	.9464	2.892	3.786	3.801	.9894	.9767
#3	.9420	2.878	3.791	3.789	.9932	.9768

Sample Name: LCS 580-95113/22-A Acquired: 9/13/2011 15:42:38 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2083.9	21181.	272.16	735.37
Stddev	2.5	29.	1.31	3.95
%RSD	.11772	.13804	.48217	.53664
#1	2083.5	21206.	271.40	734.95
#2	2081.6	21188.	273.68	739.50
#3	2086.5	21149.	271.41	731.64

Sample Name: LCSD 580-95113/23-A Acquired: 9/13/2011 15:49:07 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.5896	3.890	3.860	4.948	3.967	.10221
Stddev	.0041	.122	.012	.016	.020	.00205
%RSD	.6959	3.124	.3154	.3135	.5070	2.0094
#1	.5940	3.922	3.872	4.946	3.957	.09988
#2	.5858	3.755	3.860	4.965	3.955	.10376
#3	.5891	3.992	3.848	4.934	3.991	.10299

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	19.57	.0951	.9828	.4007	.4907	21.83
Stddev	.22	.0006	.0035	.0038	.0049	.13
%RSD	1.108	.6830	.3610	.9451	1.003	.6133
#1	19.74	.0959	.9868	.4048	.4963	21.94
#2	19.32	.0949	.9811	.3973	.4869	21.68
#3	19.65	.0946	.9803	.3999	.4888	21.87

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	19.49	19.04	1.000	4.891	19.72	.9614
Stddev	.19	.17	.011	.015	.18	.0015
%RSD	.9691	.8711	1.051	.3092	.9140	.1607
#1	19.27	19.22	1.012	4.908	19.51	.9605
#2	19.59	18.89	.9910	4.889	19.81	.9632
#3	19.61	19.01	.9979	4.878	19.84	.9606

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.9307	2.863	3.735	3.779	.9872	.9540
Stddev	.0019	.007	.023	.009	.0099	.0031
%RSD	.2032	.2549	.6255	.2459	.9978	.3283
#1	.9309	2.872	3.755	3.784	.9973	.9575
#2	.9324	2.860	3.742	3.784	.9776	.9527
#3	.9287	2.859	3.709	3.768	.9867	.9517

Sample Name: LCSD 580-95113/23-A Acquired: 9/13/2011 15:49:07 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2045.7	21106.	276.86	721.54
Stddev	3.6	88.	1.05	3.79
%RSD	.17737	.41648	.38076	.52586
#1	2044.8	21018.	277.87	724.51
#2	2049.7	21194.	275.77	722.84
#3	2042.6	21107.	276.93	717.26

Sample Name: LCSSRM 580-95113/24- Acquired: 9/13/2011 15:55:32 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5625**	**87.33**	**1.141**	**1.683**	**3.395**	**.93129**
Stddev	.0012	1.51	.006	.005	.052	.01899
%RSD	.2160	1.726	.5337	.2810	1.544	2.0391
#1	.5612	86.07	1.143	1.684	3.335	.91057
#2	.5628	89.00	1.146	1.687	3.419	.93543
#3	.5636	86.93	1.134	1.678	3.431	.94787

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**68.23**	**1.125**	**1.460**	**.9745**	**.7777**	**136.5**
Stddev	1.06	.004	.003	.0029	.0017	1.6
%RSD	1.559	.3842	.2273	.2925	.2236	1.176
#1	67.00	1.129	1.464	.9776	.7792	134.7
#2	68.84	1.124	1.459	.9720	.7758	137.8
#3	68.84	1.121	1.457	.9740	.7780	137.1

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**25.72**	**28.20**	**4.799**	**.8831**	**7.330**	**1.193**
Stddev	.50	.02	.020	.0020	.076	.001
%RSD	1.961	.0620	.4089	.2315	1.038	.0686
#1	25.20	28.21	4.821	.8854	7.244	1.194
#2	26.21	28.18	4.789	.8822	7.356	1.194
#3	25.75	28.21	4.785	.8816	7.390	1.193

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.623**	**.8952**	**2.207**	**1.785**	**1.128**	**3.163**
Stddev	.002	.0057	.014	.005	.002	.007
%RSD	.0896	.6322	.6399	.3003	.1384	.2250
#1	1.622	.8983	2.217	1.786	1.130	3.171
#2	1.624	.8986	2.212	1.789	1.127	3.162
#3	1.624	.8886	2.191	1.779	1.127	3.156

Sample Name: LCSSRM 580-95113/24- Acquired: 9/13/2011 15:55:32 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2022.3	21743.	287.60	735.99
Stddev	3.3	50.	3.22	7.00
%RSD	.16347	.23114	1.1193	.95064
#1	2024.7	21688.	289.97	743.20
#2	2023.8	21786.	288.91	735.52
#3	2018.6	21756.	283.94	729.23

Sample Name: 580-28356-B-1-E sd Acquired: 9/13/2011 16:02:09 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0006**	**91.06**	**.0299**	**.0124**	**.1114**	**.00090**
Stddev	.0001	.26	.0027	.0004	.0033	.00039
%RSD	11.13	.2884	8.929	3.529	2.920	43.542
#1	-.0007	90.84	.0304	.0126	.1151	.00117
#2	-.0005	91.35	.0324	.0127	.1103	.00045
#3	-.0006	91.01	.0271	.0119	.1089	.00107

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**2.685**	**-.0026**	**.0198**	**.0896**	**.1029**	**94.29**
Stddev	.142	.0001	.0003	.0001	.0006	.49
%RSD	5.296	3.035	1.390	.1201	.5502	.5213
#1	2.780	-.0027	.0195	.0897	.1032	93.76
#2	2.753	-.0025	.0200	.0896	.1022	94.37
#3	2.521	-.0026	.0199	.0895	.1032	94.73

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.200**	**12.90**	**.5420**	**.0028**	**.0060**	**.0602**
Stddev	.159	.01	.0006	.0001	.0288	.0011
%RSD	13.23	.0727	.1050	4.595	477.9	1.773
#1	1.356	12.89	.5416	.0027	.0252	.0610
#2	1.039	12.91	.5427	.0028	.0200	.0606
#3	1.206	12.91	.5419	.0029	-.0271	.0590

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0289**	**-.0050**	**.0071**	**.0025**	**.2190**	**.0969**
Stddev	.0027	.0018	.0008	.0015	.0001	.0005
%RSD	9.191	35.49	10.84	61.77	.0243	.5577
#1	.0317	-.0045	.0062	.0034	.2189	.0971
#2	.0286	-.0070	.0073	.0007	.2190	.0973
#3	.0264	-.0035	.0077	.0034	.2190	.0963

Sample Name: 580-28356-B-1-E sd Acquired: 9/13/2011 16:02:09 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2137.5	22451.	295.84	726.65
Stddev	1.7	70.	4.01	7.70
%RSD	.08046	.31221	1.3567	1.0595
#1	2136.8	22529.	291.88	718.24
#2	2139.4	22433.	295.73	728.36
#3	2136.2	22392.	299.90	733.36

Sample Name: 580-28356-B-1-E Acquired: 9/13/2011 16:09:01 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0024**	**458.2**	**.1503**	**.0235**	**.5491**	**.00347**
Stddev	.0001	1.6	.0013	.0006	.0007	.00195
%RSD	3.002	.3568	.8320	2.508	.1185	56.258
#1	-.0024	458.8	.1489	.0241	.5498	.00132
#2	-.0024	456.4	.1507	.0236	.5492	.00395
#3	-.0025	459.5	.1513	.0229	.5485	.00514

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**13.05**	**-.0144**	**.0934**	**.4376**	**.5159**	**460.3**
Stddev	.14	.0001	.0003	.0009	.0016	1.7
%RSD	1.087	.3802	.3188	.2152	.3052	.3708
#1	13.18	-.0144	.0938	.4386	.5161	462.2
#2	12.90	-.0145	.0934	.4375	.5174	459.2
#3	13.07	-.0145	.0932	.4367	.5142	459.3

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**4.687**	**61.99**	**2.633**	**.0089**	**.1028**	**.3017**
Stddev	.076	.22	.008	.0004	.0233	.0006
%RSD	1.625	.3540	.3193	4.741	22.71	.2108
#1	4.646	62.13	2.638	.0093	.1296	.3021
#2	4.639	62.09	2.639	.0089	.0872	.3009
#3	4.775	61.73	2.624	.0084	.0915	.3019

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1331**	**-.0360**	**.0349**	**-.0025**	**1.087**	**.4836**
Stddev	.0034	.0009	.0015	.0011	.004	.0011
%RSD	2.580	2.508	4.399	43.65	.3503	.2362
#1	.1309	-.0364	.0353	-.0029	1.089	.4845
#2	.1371	-.0349	.0332	-.0013	1.090	.4841
#3	.1314	-.0365	.0362	-.0033	1.083	.4823

Sample Name: 580-28356-B-1-E Acquired: 9/13/2011 16:09:01 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1987.6	21907.	293.29	737.31
Stddev	3.4	60.	.61	4.14
%RSD	.17081	.27430	.20838	.56084
#1	1987.2	21853.	293.89	738.33
#2	1984.5	21895.	292.67	732.76
#3	1991.2	21972.	293.33	740.84

Sample Name: 580-28356-B-1-F DU Acquired: 9/13/2011 16:15:51 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0031**	**441.9**	**.1433**	**.0248**	**.5449**	**.00361**
Stddev	.0004	1.6	.0030	.0001	.0053	.00137
%RSD	12.79	.3655	2.077	.3147	.9796	38.063
#1	-.0028	440.1	.1464	.0247	.5411	.00260
#2	-.0030	443.0	.1430	.0248	.5510	.00306
#3	-.0036	442.7	.1404	.0247	.5426	.00518

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**13.56**	**-.0141**	**.0878**	**.4608**	**.4948**	**436.4**
Stddev	.15	.0001	.0003	.0013	.0012	1.1
%RSD	1.118	.5158	.3897	.2745	.2342	.2524
#1	13.74	-.0140	.0881	.4621	.4961	436.4
#2	13.46	-.0142	.0875	.4596	.4942	437.4
#3	13.48	-.0141	.0878	.4606	.4941	435.2

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**4.944**	**66.31**	**2.420**	**.0085**	**.2238**	**.3421**
Stddev	.089	.36	.011	.0003	.0391	.0011
%RSD	1.809	.5471	.4323	3.490	17.46	.3247
#1	4.902	66.71	2.432	.0089	.2521	.3433
#2	5.046	66.18	2.414	.0084	.2401	.3420
#3	4.883	66.02	2.415	.0083	.1792	.3411

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1302**	**-.0339**	**.0308**	**.0011**	**1.041**	**.4715**
Stddev	.0005	.0025	.0029	.0029	.004	.0030
%RSD	.3742	7.359	9.511	260.3	.4234	.6438
#1	.1299	-.0342	.0298	-.0022	1.046	.4746
#2	.1308	-.0313	.0340	.0032	1.039	.4686
#3	.1300	-.0362	.0284	.0023	1.038	.4713

Sample Name: 580-28356-B-1-F DU Acquired: 9/13/2011 16:15:51 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1982.3	22191.	301.27	727.90
Stddev	2.0	55.	2.27	5.79
%RSD	.09950	.24736	.75247	.79596
#1	1980.1	22162.	299.65	728.99
#2	1982.9	22254.	300.30	721.64
#3	1984.0	22157.	303.86	733.07

Sample Name: 580-28356-B-1-G MS Acquired: 9/13/2011 16:22:39 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5989**	**500.6**	**3.976**	**4.447**	**4.715**	**.10355**
Stddev	.0011	.9	.011	.012	.022	.00402
%RSD	.1811	.1822	.2867	.2602	.4777	3.8853
#1	.5977	499.6	3.963	4.434	4.691	.09990
#2	.5991	501.1	3.979	4.454	4.736	.10786
#3	.5999	501.2	3.985	4.454	4.719	.10289

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**36.42**	**.0753**	**1.021**	**.8829**	**1.049**	**484.2**
Stddev	.21	.0003	.004	.0012	.001	2.1
%RSD	.5891	.4263	.3680	.1333	.0777	.4354
#1	36.19	.0749	1.017	.8825	1.049	483.4
#2	36.61	.0754	1.021	.8820	1.048	482.6
#3	36.46	.0755	1.024	.8842	1.050	486.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**25.55**	**82.45**	**3.573**	**4.613**	**21.32**	**1.312**
Stddev	.23	.27	.006	.014	.15	.002
%RSD	.8866	.3239	.1761	.3051	.6978	.1562
#1	25.29	82.15	3.567	4.597	21.15	1.312
#2	25.70	82.57	3.574	4.618	21.36	1.314
#3	25.66	82.64	3.579	4.624	21.44	1.310

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.055**	**1.364**	**3.847**	**3.668**	**2.109**	**1.477**
Stddev	.004	.007	.020	.010	.005	.005
%RSD	.3490	.4947	.5123	.2605	.2231	.3368
#1	1.051	1.358	3.825	3.658	2.104	1.472
#2	1.057	1.364	3.852	3.670	2.113	1.478
#3	1.058	1.371	3.863	3.677	2.110	1.482

Sample Name: 580-28356-B-1-G MS Acquired: 9/13/2011 16:22:39 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1905.7	21343.	292.60	719.00
Stddev	1.7	29.	6.51	5.25
%RSD	.08808	.13480	2.2264	.73060
#1	1904.0	21376.	298.53	723.53
#2	1905.8	21331.	285.63	713.24
#3	1907.3	21323.	293.66	720.23

Sample Name: 580-28356-B-1-H MSD Acquired: 9/13/2011 16:29:17 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5981**	**468.0**	**3.937**	**4.464**	**4.537**	**.10259**
Stddev	.0010	2.4	.018	.007	.056	.00229
%RSD	.1670	.5188	.4469	.1629	1.231	2.2332
#1	.5969	466.4	3.956	4.473	4.531	.10478
#2	.5988	466.7	3.933	4.460	4.484	.10021
#3	.5984	470.8	3.922	4.461	4.596	.10277

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**35.06**	**.0753**	**1.008**	**.8155**	**1.018**	**463.5**
Stddev	.61	.0004	.004	.0009	.002	.8
%RSD	1.741	.4933	.3972	.1156	.2352	.1751
#1	35.33	.0753	1.012	.8151	1.016	462.6
#2	34.36	.0750	1.006	.8149	1.021	464.0
#3	35.49	.0757	1.004	.8166	1.017	463.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**24.72**	**80.48**	**3.693**	**4.588**	**20.33**	**1.276**
Stddev	.32	.09	.005	.012	.32	.004
%RSD	1.291	.1112	.1394	.2504	1.577	.3222
#1	24.65	80.44	3.689	4.601	20.12	1.281
#2	24.44	80.59	3.699	4.583	20.16	1.275
#3	25.07	80.43	3.691	4.579	20.70	1.273

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.069**	**1.357**	**3.854**	**3.651**	**2.022**	**1.502**
Stddev	.007	.004	.010	.013	.003	.005
%RSD	.6448	.2874	.2666	.3572	.1510	.3673
#1	1.077	1.361	3.861	3.661	2.019	1.508
#2	1.066	1.356	3.858	3.655	2.025	1.499
#3	1.064	1.353	3.842	3.636	2.022	1.498

Sample Name: 580-28356-B-1-H MSD Acquired: 9/13/2011 16:29:17 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1931.8	21569.	293.91	743.16
Stddev	4.7	19.	1.89	9.56
%RSD	.24107	.08728	.64302	1.2868
#1	1930.1	21586.	292.55	742.94
#2	1928.3	21548.	293.11	752.84
#3	1937.1	21573.	296.07	733.71

Sample Name: 580-28356-B-1-E pds Acquired: 9/13/2011 16:35:55 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5433**	**425.5**	**3.907**	**4.422**	**4.219**	**.09925**
Stddev	.0015	.3	.005	.008	.034	.00087
%RSD	.2832	.0797	.1316	.1799	.7986	.88095
#1	.5446	425.8	3.912	4.422	4.248	.09949
#2	.5416	425.5	3.907	4.430	4.227	.09829
#3	.5438	425.2	3.902	4.414	4.182	.09999

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**29.71**	**.0782**	**.9949**	**.7732**	**.9638**	**460.4**
Stddev	.13	.0002	.0013	.0022	.0020	1.6
%RSD	.4289	.2807	.1344	.2823	.2112	.3456
#1	29.80	.0781	.9951	.7748	.9637	460.7
#2	29.77	.0785	.9935	.7707	.9618	458.7
#3	29.57	.0781	.9961	.7742	.9659	461.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**21.97**	**77.11**	**3.397**	**4.318**	**17.86**	**1.205**
Stddev	.22	.35	.012	.002	.15	.002
%RSD	.9837	.4534	.3609	.0441	.8314	.1229
#1	22.07	77.08	3.400	4.316	17.97	1.207
#2	22.11	76.78	3.384	4.317	17.92	1.204
#3	21.72	77.48	3.408	4.320	17.69	1.204

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.032**	**2.668**	**3.826**	**3.591**	**1.964**	**1.372**
Stddev	.007	.002	.008	.006	.010	.002
%RSD	.6871	.0806	.2169	.1721	.5015	.1696
#1	1.040	2.670	3.832	3.598	1.964	1.374
#2	1.026	2.669	3.830	3.591	1.954	1.371
#3	1.032	2.666	3.817	3.585	1.974	1.370

Sample Name: 580-28356-B-1-E pds Acquired: 9/13/2011 16:35:55 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1961.9	21121.	284.68	750.62
Stddev	3.7	45.	3.21	2.69
%RSD	.18991	.21099	1.1294	.35862
#1	1958.4	21129.	287.70	749.84
#2	1965.8	21162.	285.03	748.40
#3	1961.4	21073.	281.30	753.61

Sample Name: CCV Acquired: 9/13/2011 16:42:35 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.022**	**10.09**	**4.836**	**2.481**	**2.428**	**.09801**
Stddev	.002	.16	.011	.005	.021	.00079
%RSD	.1776	1.630	.2231	.2017	.8492	.80985
#1	1.024	10.20	4.842	2.479	2.429	.09709
#2	1.021	9.902	4.824	2.487	2.408	.09845
#3	1.021	10.17	4.843	2.477	2.449	.09848
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.56**	**.4889**	**.4909**	**.4943**	**.4841**	**9.917**
Stddev	.09	.0008	.0010	.0015	.0015	.142
%RSD	.4372	.1541	.1958	.3103	.3001	1.435
#1	19.57	.4896	.4909	.4951	.4847	9.959
#2	19.47	.4881	.4900	.4925	.4824	9.758
#3	19.64	.4889	.4919	.4953	.4852	10.03
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 16:42:35 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.43**	**19.52**	**.4900**	**.4841**	**14.55**	**.4723**
Stddev	.29	.05	.0013	.0018	.06	.0015
%RSD	1.500	.2471	.2639	.3775	.4073	.3192
#1	19.76	19.55	.4910	.4853	14.59	.4739
#2	19.20	19.46	.4885	.4820	14.48	.4721
#3	19.34	19.54	.4904	.4849	14.58	.4709
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.723**	**2.389**	**4.824**	**2.413**	**.4852**	**.4774**
Stddev	.015	.000	.002	.006	.0016	.0012
%RSD	.3175	.0101	.0311	.2416	.3215	.2426
#1	4.740	2.389	4.825	2.418	.4857	.4777
#2	4.716	2.389	4.825	2.414	.4834	.4761
#3	4.713	2.389	4.822	2.406	.4864	.4783
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 16:42:35 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2131.1	21725.	284.38	741.57
Stddev	7.6	67.	1.61	5.58
%RSD	.35866	.30892	.56475	.75256
#1	2124.3	21723.	282.91	741.01
#2	2139.4	21793.	286.09	747.41
#3	2129.5	21659.	284.13	736.29

Sample Name: CCB Acquired: 9/13/2011 16:49:04 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0001**	**.0429**	**.0011**	**.0094**	**.0023**	**.00108**
Stddev	.0002	.0473	.0015	.0002	.0011	.00149
%RSD	242.0	110.3	137.0	2.581	50.77	138.15
#1	.0003	.0369	.0015	.0096	.0028	.00147
#2	-.0002	.0930	.0024	.0095	.0030	-.00057
#3	.0001	-.0011	-.0006	.0091	.0009	.00233
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0496**	**.0000**	**-.0001**	**.0001**	**.0006**	**-.0111**
Stddev	.0436	.000	.0002	.0002	.0002	.0362
%RSD	87.94	505.5	303.8	216.2	39.28	325.7
#1	.0920	-.0001	.0001	.0000	.0003	-.0353
#2	.0048	-.0002	-.0002	.0003	.0007	.0305
#3	.0520	.0002	.0000	.0000	.0007	-.0284
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 16:49:04 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.1129**	**.0019**	**.0000**	**.0005**	**-.1182**	**.0002**
Stddev	.1202	.0022	.0000	.0001	.0442	.0003
%RSD	106.4	118.0	113.8	16.39	37.42	157.5
#1	.1512	.0040	.0000	.0004	-.1413	-.0001
#2	-.0217	-.0004	.0000	.0005	-.0672	.0002
#3	.2093	.0020	.0001	.0005	-.1461	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0019**	**.0007**	**-.0002**	**.0024**	**.0002**	**.0001**
Stddev	.0019	.0020	.0026	.0021	.0001	.0002
%RSD	96.74	263.9	1442.	90.02	46.11	204.7
#1	.0030	.0018	-.0008	.0035	.0003	-.0001
#2	-.0002	.0020	.0027	-.0001	.0001	.0001
#3	.0030	-.0015	-.0024	.0037	.0002	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 16:49:04 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2292.5	21677.	273.14	744.08
Stddev	7.5	48.	1.47	5.39
%RSD	.32501	.22139	.53725	.72415
#1	2288.3	21730.	274.64	744.58
#2	2288.1	21636.	271.70	738.46
#3	2301.1	21666.	273.09	749.21

Sample Name: 580-28356-A-2-B Acquired: 9/13/2011 16:58:22 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0002**	**95.05**	**.0399**	**.0142**	**.1206**	**.00029**
Stddev	.0002	.32	.0007	.0004	.0027	.00042
%RSD	115.2	.3381	1.669	2.816	2.264	142.68
#1	.0002	94.70	.0392	.0142	.1210	.00075
#2	.0000	95.10	.0401	.0146	.1232	-.00006
#3	.0005	95.34	.0405	.0138	.1178	.00019

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**2.012**	**-.0045**	**.0231**	**.1234**	**.1491**	**183.6**
Stddev	.095	.0001	.0000	.0004	.0006	1.0
%RSD	4.725	1.615	.2125	.3247	.4091	.5463
#1	2.121	-.0044	.0231	.1230	.1491	182.5
#2	1.944	-.0045	.0230	.1237	.1497	184.4
#3	1.972	-.0045	.0231	.1236	.1485	183.8

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**2.315**	**5.223**	**.4486**	**.0041**	**.8576**	**.0488**
Stddev	.101	.006	.0003	.0004	.0390	.0008
%RSD	4.350	.1219	.0721	9.107	4.544	1.578
#1	2.412	5.221	.4486	.0043	.9016	.0479
#2	2.211	5.231	.4489	.0043	.8275	.0493
#3	2.323	5.219	.4483	.0036	.8437	.0492

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0826**	**-.0105**	**.0116**	**.0027**	**.4256**	**.2331**
Stddev	.0016	.0012	.0014	.0034	.0003	.0001
%RSD	1.906	11.05	12.45	123.0	.0637	.0629
#1	.0810	-.0106	.0103	.0059	.4256	.2330
#2	.0841	-.0117	.0132	.0032	.4253	.2333
#3	.0828	-.0093	.0114	-.0008	.4259	.2330

Sample Name: 580-28356-A-2-B Acquired: 9/13/2011 16:58:22 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2188.0**	**21626.**	**285.39**	**783.19**
Stddev	8.8	21.	3.63	12.07
%RSD	.40213	.09938	1.2707	1.5415
#1	2182.8	21641.	282.06	773.63
#2	2183.0	21601.	284.87	779.19
#3	2198.1	21636.	289.25	796.76

Sample Name: 580-28356-A-3-B Acquired: 9/13/2011 17:05:16 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0060**	**411.5**	**.1092**	**.0193**	**.8256**	**.00584**
Stddev	.0003	2.2	.0008	.0011	.0057	.00047
%RSD	4.568	.5275	.7537	5.939	.6963	8.1222
#1	-.0058	409.7	.1099	.0190	.8191	.00535
#2	-.0063	410.9	.1083	.0206	.8282	.00588
#3	-.0059	413.9	.1095	.0183	.8297	.00629

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**10.79**	**-.0205**	**.0872**	**.4426**	**.3731**	**672.7**
Stddev	.13	.0004	.0002	.0021	.0010	2.9
%RSD	1.225	1.903	.2672	.4654	.2632	.4263
#1	10.92	-.0202	.0873	.4447	.3742	672.5
#2	10.66	-.0209	.0869	.4424	.3726	670.0
#3	10.78	-.0203	.0874	.4406	.3724	675.7

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**4.631**	**44.62**	**3.179**	**.0186**	**.0892**	**.2350**
Stddev	.158	.18	.015	.0003	.0377	.0009
%RSD	3.410	.4101	.4626	1.743	42.21	.3794
#1	4.463	44.83	3.196	.0188	.0813	.2345
#2	4.652	44.50	3.171	.0188	.0562	.2344
#3	4.777	44.53	3.170	.0183	.1303	.2360

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1734**	**-.0464**	**.0387**	**.0030**	**2.000**	**.5287**
Stddev	.0015	.0019	.0024	.0002	.010	.0008
%RSD	.8392	4.099	6.103	8.075	.5029	.1456
#1	.1722	-.0462	.0378	.0031	2.012	.5289
#2	.1750	-.0484	.0414	.0032	1.992	.5279
#3	.1730	-.0446	.0369	.0028	1.997	.5294

Sample Name: 580-28356-A-3-B Acquired: 9/13/2011 17:05:16 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1996.1	21100.	285.63	756.11
Stddev	2.6	68.	3.64	2.16
%RSD	.13190	.32392	1.2736	.28572
#1	1996.0	21056.	282.35	755.98
#2	1998.8	21179.	284.99	754.02
#3	1993.5	21067.	289.54	758.33

Sample Name: 580-28356-A-4-B Acquired: 9/13/2011 17:12:03 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0084**	**1086.**	**.2008**	**.0406**	**1.152**	**.01380**
Stddev	.0003	6.	.0060	.0009	.011	.00068
%RSD	3.512	.5478	2.965	2.169	.9325	4.9614
#1	-.0087	1080.	.1983	.0402	1.144	.01337
#2	-.0082	1092.	.1965	.0416	1.147	.01344
#3	-.0083	1087.	.2076	.0400	1.164	.01458

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**25.80**	**-.0242**	**.3131**	**1.010**	**1.224**	**769.1**
Stddev	.35	.0003	.0001	.002	.003	2.6
%RSD	1.348	1.260	.0291	.2020	.2373	.3370
#1	25.52	-.0242	.3131	1.012	1.226	767.5
#2	25.68	-.0240	.3130	1.008	1.225	772.1
#3	26.19	-.0246	.3131	1.010	1.221	767.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**11.20**	**188.9**	**6.454**	**.0125**	**-.6292**	**1.106**
Stddev	.03	.3	.008	.0011	.0380	.002
%RSD	.2419	.1526	.1294	8.693	6.039	.1425
#1	11.17	189.2	6.456	.0119	-.6572	1.107
#2	11.22	188.9	6.461	.0137	-.6443	1.106
#3	11.22	188.7	6.445	.0118	-.5859	1.104

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1841**	**-.0614**	**.0616**	**-.0034**	**1.292**	**1.713**
Stddev	.0058	.0074	.0042	.0058	.003	.004
%RSD	3.164	12.05	6.739	171.2	.1933	.2138
#1	.1775	-.0638	.0569	.0007	1.294	1.716
#2	.1885	-.0531	.0632	-.0008	1.292	1.713
#3	.1862	-.0674	.0648	-.0101	1.289	1.709

Sample Name: 580-28356-A-4-B Acquired: 9/13/2011 17:12:03 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1876.5**	**21018.**	**288.43**	**757.62**
Stddev	2.3	37.	.21	6.90
%RSD	.12065	.17723	.07344	.91132
#1	1873.9	20986.	288.35	756.06
#2	1877.2	21009.	288.67	765.18
#3	1878.3	21059.	288.27	751.64

Sample Name: 580-28356-A-5-B Acquired: 9/13/2011 17:18:56 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	-.0073	578.1	.3666	.0605	1.264	.01114
Stddev	.0004	2.0	.0022	.0002	.008	.00127
%RSD	5.672	.3425	.6038	.3045	.6596	11.368
#1	-.0075	576.7	.3666	.0605	1.254	.01029
#2	-.0076	580.4	.3644	.0603	1.269	.01053
#3	-.0068	577.3	.3688	.0607	1.268	.01260

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	16.07	-.0222	.4422	1.766	5.009	717.4
Stddev	.14	.0002	.0007	.007	.015	1.3
%RSD	.8425	1.108	.1574	.4175	.3078	.1852
#1	15.96	-.0219	.4414	1.758	4.995	716.8
#2	16.02	-.0224	.4426	1.769	5.025	718.9
#3	16.22	-.0223	.4426	1.771	5.006	716.4

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	13.28	420.3	8.911	.0106	.6692	5.083
Stddev	.12	1.7	.057	.0002	.0314	.010
%RSD	.8743	.4091	.6375	1.611	4.692	.1914
#1	13.29	418.3	8.904	.0106	.6776	5.072
#2	13.17	421.6	8.971	.0107	.6344	5.088
#3	13.40	420.9	8.858	.0104	.6955	5.089

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.1662	-.0546	.0424	.0019	1.094	1.372
Stddev	.0040	.0008	.0042	.0019	.003	.001
%RSD	2.432	1.471	10.00	101.8	.2769	.0637
#1	.1652	-.0553	.0436	.0031	1.090	1.371
#2	.1706	-.0537	.0460	.0028	1.096	1.373
#3	.1627	-.0549	.0377	-.0003	1.095	1.371

Sample Name: 580-28356-A-5-B Acquired: 9/13/2011 17:18:56 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1855.9	20520.	282.49	735.60
Stddev	4.6	46.	2.69	4.94
%RSD	.24893	.22199	.95211	.67203
#1	1861.2	20568.	280.72	740.71
#2	1852.8	20477.	285.59	730.85
#3	1853.6	20516.	281.18	735.24

Sample Name: 580-28356-A-6-A Acquired: 9/13/2011 17:25:47 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0046**	**437.4**	**.1869**	**.0234**	**.3738**	**.00250**
Stddev	.0004	1.5	.0044	.0005	.0058	.00050
%RSD	9.319	.3383	2.378	1.926	1.562	20.021
#1	-.0051	439.0	.1916	.0232	.3788	.00248
#2	-.0042	436.0	.1865	.0239	.3752	.00301
#3	-.0045	437.3	.1827	.0230	.3674	.00201

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**6.086**	**-.0151**	**.0944**	**.4034**	**.5296**	**484.2**
Stddev	.102	.0002	.0006	.0009	.0035	2.5
%RSD	1.680	1.367	.6490	.2198	.6545	.5259
#1	6.186	-.0151	.0950	.4041	.5334	486.8
#2	5.981	-.0153	.0944	.4037	.5289	484.2
#3	6.091	-.0149	.0938	.4024	.5266	481.7

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**5.709**	**71.82**	**2.193**	**.0100**	**.3828**	**.3507**
Stddev	.164	.27	.010	.0002	.0656	.0017
%RSD	2.876	.3719	.4398	1.733	17.13	.4879
#1	5.877	72.08	2.202	.0101	.4493	.3495
#2	5.699	71.82	2.193	.0098	.3810	.3527
#3	5.549	71.55	2.183	.0101	.3182	.3500

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1625**	**-.0397**	**.0350**	**-.0002**	**.9166**	**.5387**
Stddev	.0017	.0015	.0022	.0065	.0031	.0018
%RSD	1.059	3.813	6.386	4106.	.3387	.3314
#1	.1626	-.0383	.0376	-.0073	.9195	.5406
#2	.1608	-.0394	.0334	.0054	.9171	.5387
#3	.1642	-.0413	.0341	.0014	.9133	.5370

Sample Name: 580-28356-A-6-A Acquired: 9/13/2011 17:25:47 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2027.0	21905.	287.04	737.79
Stddev	3.6	71.	5.00	14.17
%RSD	.17967	.32455	1.7416	1.9211
#1	2029.6	21842.	282.38	724.21
#2	2022.8	21891.	286.43	736.66
#3	2028.5	21982.	292.32	752.49

Sample Name: 580-28356-A-7-A Acquired: 9/13/2011 17:32:31 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0028**	**669.5**	**1.747**	**.0367**	**.8482**	**.01413**
Stddev	.0004	5.4	.006	.0006	.0090	.00169
%RSD	12.63	.8111	.3273	1.529	1.058	11.939
#1	-.0030	669.2	1.749	.0373	.8488	.01603
#2	-.0031	664.2	1.740	.0365	.8389	.01280
#3	-.0024	675.0	1.751	.0362	.8568	.01357

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**12.23**	**-.0188**	**.4876**	**1.328**	**7.290**	**655.1**
Stddev	.10	.0007	.0016	.004	.026	7.0
%RSD	.8547	3.592	.3227	.2907	.3584	1.063
#1	12.27	-.0196	.4858	1.332	7.316	655.4
#2	12.31	-.0185	.4885	1.324	7.264	647.9
#3	12.11	-.0184	.4886	1.327	7.290	661.8

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**26.99**	**171.3**	**7.840**	**.0996**	**1.434**	**1.352**
Stddev	.18	.4	.051	.0007	.029	.003
%RSD	.6765	.2121	.6520	.6741	2.036	.2372
#1	27.11	171.5	7.838	.0996	1.457	1.349
#2	26.78	170.8	7.790	.0989	1.445	1.355
#3	27.09	171.4	7.892	.1002	1.401	1.353

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.6884**	**-.0413**	**.0553**	**.0035**	**1.357**	**1.806**
Stddev	.0056	.0063	.0049	.0027	.004	.004
%RSD	.8182	15.22	8.916	77.57	.3080	.2404
#1	.6828	-.0484	.0502	.0036	1.359	1.801
#2	.6884	-.0390	.0601	.0061	1.353	1.809
#3	.6941	-.0365	.0557	.0007	1.360	1.809

Sample Name: 580-28356-A-7-A Acquired: 9/13/2011 17:32:31 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1886.1	21495.	300.29	751.33
Stddev	1.3	54.	2.22	4.61
%RSD	.07093	.25286	.73936	.61389
#1	1886.4	21534.	297.97	749.00
#2	1884.6	21518.	300.50	748.35
#3	1887.2	21433.	302.40	756.64

Sample Name: 580-28356-A-8-A Acquired: 9/13/2011 17:39:20 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0059**	**478.4**	**.9959**	**.0277**	**1.162**	**.00719**
Stddev	.0001	4.5	.0037	.0005	.003	.00046
%RSD	1.854	.9363	.3744	1.643	.2961	6.3722
#1	.0060	474.6	.9991	.0282	1.160	.00760
#2	.0058	483.3	.9968	.0277	1.165	.00670
#3	.0059	477.2	.9918	.0273	1.159	.00728

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**22.92**	**-.0067**	**.1384**	**.7128**	**1.479**	**349.7**
Stddev	.31	.0002	.0009	.0040	.009	2.0
%RSD	1.345	2.316	.6393	.5611	.5911	.5698
#1	22.62	-.0066	.1394	.7155	1.486	349.3
#2	22.90	-.0068	.1383	.7148	1.482	351.9
#3	23.24	-.0066	.1376	.7082	1.469	348.0

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**12.22**	**58.04**	**26.59**	**.0326**	**1.321**	**.5169**
Stddev	.18	.36	.19	.0007	.014	.0020
%RSD	1.442	.6211	.7049	2.207	1.023	.3962
#1	12.19	58.40	26.62	.0326	1.334	.5190
#2	12.41	58.05	26.77	.0333	1.307	.5168
#3	12.06	57.68	26.40	.0319	1.322	.5149

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.5244**	**-.0078**	**.0540**	**-.0223**	**.7909**	**1.186**
Stddev	.0045	.0037	.0054	.0026	.0048	.004
%RSD	.8640	47.86	10.08	11.84	.6126	.3833
#1	.5236	-.0099	.0602	-.0199	.7957	1.191
#2	.5292	-.0035	.0514	-.0252	.7910	1.184
#3	.5202	-.0101	.0503	-.0219	.7860	1.182

Sample Name: 580-28356-A-8-A Acquired: 9/13/2011 17:39:20 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1988.6	22316.	299.79	735.19
Stddev	3.5	105.	3.01	1.20
%RSD	.17467	.47076	1.0026	.16354
#1	1985.1	22213.	296.50	734.54
#2	1988.6	22310.	302.38	736.58
#3	1992.1	22423.	300.49	734.46

Sample Name: 580-28356-A-9-A Acquired: 9/13/2011 17:46:10 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0092**	**82.76**	**.0897**	**.0274**	**.3604**	**.00002**
Stddev	.0002	1.20	.0023	.0002	.0030	.00118
%RSD	2.087	1.452	2.610	.6875	.8308	5155.4
#1	.0091	84.02	.0904	.0276	.3590	.00109
#2	.0091	81.63	.0871	.0272	.3638	.00023
#3	.0094	82.62	.0917	.0273	.3584	-.00125

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**7.602**	**-.0034**	**.0319**	**.1145**	**.2091**	**115.0**
Stddev	.080	.0001	.0002	.0004	.0014	.6
%RSD	1.057	4.199	.5485	.3173	.6621	.5513
#1	7.688	-.0036	.0321	.1148	.2098	114.2
#2	7.528	-.0033	.0317	.1141	.2075	115.5
#3	7.590	-.0034	.0319	.1147	.2100	115.2

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**5.692**	**5.459**	**1.195**	**.0126**	**1.730**	**.0628**
Stddev	.118	.023	.005	.0005	.020	.0007
%RSD	2.072	.4235	.4230	3.852	1.158	1.156
#1	5.585	5.480	1.199	.0132	1.718	.0633
#2	5.818	5.434	1.190	.0123	1.753	.0631
#3	5.672	5.462	1.197	.0124	1.719	.0620

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1516**	**-.0057**	**.0064**	**-.0007**	**.4257**	**.2325**
Stddev	.0012	.0027	.0015	.0017	.0015	.0006
%RSD	.7805	46.43	23.74	242.5	.3461	.2568
#1	.1506	-.0041	.0057	-.0019	.4262	.2331
#2	.1514	-.0043	.0055	.0013	.4240	.2319
#3	.1529	-.0088	.0082	-.0016	.4268	.2325

Sample Name: 580-28356-A-9-A Acquired: 9/13/2011 17:46:10 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2134.5	22595.	299.06	698.96
Stddev	5.6	47.	2.60	5.75
%RSD	.26435	.20589	.86818	.82330
#1	2128.1	22589.	302.00	697.92
#2	2136.4	22645.	297.07	693.80
#3	2138.9	22552.	298.12	705.16

Sample Name: 580-28356-A-10-A Acquired: 9/13/2011 17:53:05 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0054**	**231.5**	**.3029**	**.0152**	**1.166**	**.00322**
Stddev	.0002	3.2	.0013	.0010	.068	.00026
%RSD	3.744	1.380	.4268	6.569	5.843	8.0925
#1	-.0057	234.0	.3034	.0163	1.214	.00294
#2	-.0054	232.7	.3038	.0143	1.195	.00327
#3	-.0053	227.9	.3014	.0151	1.088	.00346

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**10.69**	**-.0157**	**.0927**	**.4817**	**1.284**	**528.7**
Stddev	.68	.0003	.0005	.0017	.003	5.7
%RSD	6.349	1.856	.5744	.3625	.2474	1.077
#1	11.31	-.0160	.0932	.4834	1.287	534.6
#2	10.79	-.0156	.0927	.4799	1.282	528.2
#3	9.967	-.0155	.0922	.4817	1.282	523.3

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**9.958**	**39.94**	**2.883**	**.0715**	**.2750**	**.2322**
Stddev	.554	.14	.007	.0004	.1758	.0013
%RSD	5.561	.3381	.2411	.6196	63.94	.5452
#1	10.32	40.10	2.890	.0719	.3811	.2311
#2	10.23	39.86	2.878	.0715	.3718	.2319
#3	9.321	39.87	2.880	.0710	.0720	.2336

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2536**	**-.0433**	**.0295**	**.0022**	**1.473**	**.3521**
Stddev	.0027	.0010	.0041	.0013	.006	.0002
%RSD	1.056	2.326	13.96	60.82	.4068	.0506
#1	.2542	-.0442	.0329	.0020	1.480	.3523
#2	.2560	-.0436	.0249	.0010	1.469	.3519
#3	.2507	-.0422	.0305	.0036	1.470	.3521

Sample Name: 580-28356-A-10-A Acquired: 9/13/2011 17:53:05 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2036.5	22189.	306.17	747.49
Stddev	3.2	55.	17.42	40.40
%RSD	.15550	.24779	5.6908	5.4049
#1	2039.5	22130.	297.03	723.98
#2	2036.8	22200.	295.22	724.36
#3	2033.1	22238.	326.26	794.15

Sample Name: CCV Acquired: 9/13/2011 17:59:53 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.019**	**10.09**	**4.778**	**2.471**	**2.532**	**.09041**
Stddev	.005	.13	.012	.003	.024	.00149
%RSD	.4730	1.242	.2479	.1145	.9396	1.6477
#1	1.015	10.04	4.786	2.474	2.517	.08876
#2	1.017	10.23	4.784	2.470	2.519	.09078
#3	1.024	9.998	4.765	2.468	2.559	.09167
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.52**	**.4511**	**.4738**	**.4925**	**.4735**	**9.296**
Stddev	.07	.0011	.0008	.0005	.0017	.151
%RSD	.3476	.2413	.1769	.1007	.3604	1.620
#1	19.57	.4522	.4748	.4924	.4726	9.164
#2	19.54	.4510	.4733	.4930	.4724	9.460
#3	19.44	.4501	.4733	.4920	.4754	9.263
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 17:59:53 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.59**	**18.49**	**.4741**	**.4685**	**15.29**	**.4805**
Stddev	.19	.04	.0009	.0008	.15	.0013
%RSD	.9481	.2332	.1892	.1687	.9887	.2714
#1	19.39	18.46	.4738	.4694	15.30	.4819
#2	19.63	18.47	.4735	.4682	15.14	.4803
#3	19.75	18.54	.4751	.4679	15.44	.4793
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.576**	**2.329**	**4.641**	**2.356**	**.4647**	**.4689**
Stddev	.012	.004	.014	.003	.0014	.0008
%RSD	.2522	.1726	.3096	.1273	.3060	.1607
#1	4.589	2.333	4.649	2.359	.4641	.4694
#2	4.572	2.325	4.649	2.356	.4636	.4693
#3	4.567	2.329	4.625	2.353	.4663	.4680
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 17:59:53 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2099.4**	**22563.**	**299.10**	**707.24**
Stddev	3.2	29.	.82	4.26
%RSD	.15207	.12640	.27578	.60192
#1	2095.9	22534.	298.17	709.09
#2	2100.0	22566.	299.74	710.26
#3	2102.2	22591.	299.38	702.37

Sample Name: CCB Acquired: 9/13/2011 18:08:51 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0001**	**.0193**	**.0013**	**.0024**	**.0003**	**.00097**
Stddev	.0003	.1484	.0028	.0004	.0023	.00057
%RSD	322.4	770.6	213.3	17.57	694.0	58.739
#1	-.0002	-.0589	-.0005	.0028	.0029	.00035
#2	.0004	.1904	-.0001	.0020	-.0006	.00148
#3	.0000	-.0737	.0046	.0024	-.0013	.00107
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0603**	**.0000**	**-.0001**	**.0000**	**.0012**	**-.0272**
Stddev	.0718	.000	.0001	.000	.0002	.0355
%RSD	119.2	142.2	167.0	379.1	12.85	130.9
#1	.1370	.0000	-.0001	-.0001	.0011	-.0050
#2	.0493	.0000	-.0002	.0001	.0011	-.0083
#3	-.0054	-.0001	.0000	-.0002	.0014	-.0682
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 18:08:51 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.3712**	**.0014**	**.0001**	**-.0001**	**-.1768**	**.0006**
Stddev	.0546	.0007	.0000	.0004	.0099	.0001
%RSD	14.72	52.49	43.33	632.7	5.585	21.37
#1	.3715	.0018	.0001	.0003	-.1879	.0007
#2	.4257	.0006	.0001	-.0005	-.1735	.0005
#3	.3165	.0019	.0001	-.0001	-.1691	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0008**	**.0007**	**-.0014**	**.0025**	**.0001**	**-.0002**
Stddev	.0009	.0009	.0011	.0026	.0001	.0001
%RSD	106.8	116.7	78.53	103.9	81.05	83.36
#1	.0017	.0007	-.0006	.0029	.0002	.0000
#2	.0008	.0016	-.0027	-.0002	.0001	-.0002
#3	.0000	-.0001	-.0010	.0050	.0001	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 18:08:51 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2287.7**	**22530.**	**289.29**	**709.75**
Stddev	2.8	43.	1.07	8.21
%RSD	.12025	.18906	.37086	1.1570
#1	2285.6	22487.	288.05	701.23
#2	2290.8	22529.	289.83	717.62
#3	2286.8	22572.	289.98	710.40

Sample Name: 580-28404-A-5-C Acquired: 9/13/2011 18:18:18 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0082**	**794.1**	**-.0094**	**.0098**	**4.265**	**.01613**
Stddev	.0003	3.7	.0017	.0009	.015	.00181
%RSD	3.906	.4667	18.09	9.001	.3579	11.243
#1	-.0084	796.1	-.0075	.0089	4.271	.01819
#2	-.0078	796.3	-.0099	.0098	4.277	.01542
#3	-.0084	789.8	-.0108	.0107	4.248	.01478

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**40.57**	**-.0290**	**.2961**	**.0212**	**.1257**	**799.8**
Stddev	.20	.0002	.0014	.0006	.0008	2.6
%RSD	.4878	.8292	.4661	3.046	.6731	.3272
#1	40.80	-.0292	.2945	.0206	.1260	800.0
#2	40.48	-.0288	.2967	.0219	.1264	802.4
#3	40.43	-.0289	.2971	.0211	.1247	797.1

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**4.285**	**26.78**	**21.47**	**.0056**	**2.556**	**.0092**
Stddev	.083	.05	.06	.0006	.042	.0005
%RSD	1.940	.1708	.2588	11.62	1.651	5.142
#1	4.205	26.73	21.45	.0058	2.577	.0087
#2	4.278	26.81	21.43	.0048	2.585	.0092
#3	4.371	26.80	21.53	.0060	2.508	.0096

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2294**	**-.0673**	**.0694**	**-.0178**	**1.554**	**.6339**
Stddev	.0027	.0028	.0059	.0043	.003	.0009
%RSD	1.159	4.199	8.568	24.22	.2089	.1386
#1	.2264	-.0645	.0626	-.0131	1.550	.6338
#2	.2305	-.0702	.0737	-.0187	1.556	.6330
#3	.2314	-.0673	.0720	-.0217	1.555	.6347

Sample Name: 580-28404-A-5-C Acquired: 9/13/2011 18:18:18 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1883.2	22513.	309.69	793.93
Stddev	4.1	30.	2.52	4.79
%RSD	.21716	.13525	.81377	.60295
#1	1878.6	22547.	311.11	791.02
#2	1884.9	22487.	311.18	799.45
#3	1886.2	22506.	306.78	791.31

Sample Name: 580-28404-A-6-C Acquired: 9/13/2011 18:25:19 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0097**	**496.9**	**.0117**	**.0162**	**2.924**	**.01442**
Stddev	.0003	1.3	.0026	.0003	.005	.00079
%RSD	3.532	.2704	22.22	1.920	.1818	5.4685
#1	-.0096	495.9	.0134	.0158	2.918	.01351
#2	-.0095	498.5	.0129	.0162	2.928	.01494
#3	-.0101	496.5	.0087	.0164	2.926	.01479

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**53.83**	**-.0246**	**.2819**	**.0303**	**.1302**	**714.7**
Stddev	.16	.0005	.0003	.0006	.0003	1.4
%RSD	.2974	2.077	.1058	1.919	.2218	.1906
#1	53.68	-.0246	.2821	.0297	.1300	713.1
#2	54.00	-.0251	.2816	.0309	.1300	715.3
#3	53.81	-.0241	.2821	.0302	.1305	715.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**2.699**	**26.76**	**15.22**	**.0057**	**2.655**	**.0131**
Stddev	.063	.06	.08	.0003	.044	.0008
%RSD	2.333	.2146	.5105	5.793	1.658	6.009
#1	2.747	26.70	15.30	.0056	2.672	.0129
#2	2.628	26.78	15.15	.0060	2.688	.0124
#3	2.723	26.81	15.22	.0054	2.605	.0140

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2487**	**-.0675**	**.0608**	**-.0086**	**1.911**	**.5996**
Stddev	.0025	.0019	.0060	.0046	.005	.0023
%RSD	.9993	2.760	9.795	54.07	.2561	.3812
#1	.2464	-.0691	.0572	-.0033	1.905	.6003
#2	.2513	-.0655	.0677	-.0120	1.912	.5970
#3	.2485	-.0681	.0576	-.0104	1.914	.6014

Sample Name: 580-28404-A-6-C Acquired: 9/13/2011 18:25:19 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1970.3	22812.	308.45	797.89
Stddev	1.7	11.	1.02	1.62
%RSD	.08736	.04956	.33224	.20278
#1	1969.9	22808.	309.04	796.72
#2	1968.8	22825.	307.27	797.21
#3	1972.2	22803.	309.05	799.73

Sample Name: 580-28404-A-7-C Acquired: 9/13/2011 18:32:12 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0058**	**629.4**	**-.0125**	**.0096**	**3.470**	**.01432**
Stddev	.0005	3.0	.0017	.0003	.002	.00080
%RSD	8.320	.4836	13.68	3.140	.0692	5.5784
#1	-.0061	630.3	-.0115	.0100	3.471	.01399
#2	-.0060	631.9	-.0144	.0094	3.468	.01373
#3	-.0052	626.0	-.0115	.0096	3.472	.01523

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**46.33**	**-.0294**	**.3587**	**.0285**	**.1312**	**844.2**
Stddev	.17	.0007	.0002	.0003	.0010	3.7
%RSD	.3584	2.242	.0526	.9695	.7773	.4343
#1	46.51	-.0301	.3585	.0288	.1300	847.0
#2	46.18	-.0294	.3588	.0286	.1318	845.5
#3	46.30	-.0288	.3588	.0282	.1317	840.0

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**8.420**	**27.79**	**29.70**	**.0045**	**.3223**	**.0191**
Stddev	.032	.08	.28	.0005	.0304	.0012
%RSD	.3761	.2901	.9293	10.86	9.442	6.036
#1	8.387	27.86	29.65	.0050	.3570	.0179
#2	8.425	27.82	30.00	.0045	.3000	.0201
#3	8.449	27.70	29.45	.0040	.3099	.0194

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2616**	**-.0714**	**.0800**	**-.0273**	**1.942**	**.9118**
Stddev	.0031	.0008	.0042	.0031	.002	.0002
%RSD	1.199	1.095	5.248	11.49	.1213	.0227
#1	.2623	-.0722	.0800	-.0307	1.942	.9116
#2	.2582	-.0712	.0758	-.0245	1.944	.9119
#3	.2643	-.0707	.0842	-.0267	1.939	.9119

Sample Name: 580-28404-A-7-C Acquired: 9/13/2011 18:32:12 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1885.2	22263.	305.61	806.14
Stddev	2.1	13.	.59	4.01
%RSD	.11110	.05851	.19380	.49786
#1	1884.8	22249.	305.05	809.71
#2	1887.4	22265.	305.55	806.93
#3	1883.3	22275.	306.23	801.80

Sample Name: 580-28404-A-8-C Acquired: 9/13/2011 18:39:03 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0070**	**479.9**	**.0370**	**.0211**	**2.572**	**.01441**
Stddev	.0001	3.2	.0041	.0005	.013	.00045
%RSD	1.418	.6627	10.96	2.393	.4972	3.1313
#1	-.0069	476.6	.0323	.0215	2.568	.01392
#2	-.0069	480.4	.0390	.0206	2.562	.01481
#3	-.0071	482.9	.0396	.0213	2.586	.01450

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**92.75**	**-.0174**	**.1933**	**.0401**	**.0857**	**514.1**
Stddev	.73	.0002	.0013	.0001	.0005	2.8
%RSD	.7824	1.026	.6796	.1946	.5968	.5407
#1	92.97	-.0176	.1920	.0400	.0851	512.0
#2	91.94	-.0173	.1934	.0402	.0859	513.0
#3	93.33	-.0172	.1946	.0402	.0860	517.2

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**7.585**	**34.80**	**20.60**	**.0006**	**1.465**	**.0298**
Stddev	.162	.08	.16	.0005	.035	.0013
%RSD	2.139	.2326	.7877	90.54	2.377	4.454
#1	7.624	34.78	20.73	.0000	1.489	.0286
#2	7.407	34.73	20.42	.0010	1.425	.0312
#3	7.724	34.89	20.66	.0008	1.480	.0296

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2273**	**-.0480**	**.0539**	**-.0141**	**.5468**	**.6436**
Stddev	.0023	.0039	.0031	.0019	.0014	.0003
%RSD	.9965	8.098	5.828	13.28	.2521	.0486
#1	.2274	-.0453	.0538	-.0133	.5464	.6432
#2	.2249	-.0463	.0508	-.0128	.5456	.6436
#3	.2295	-.0525	.0571	-.0162	.5483	.6439

Sample Name: 580-28404-A-8-C Acquired: 9/13/2011 18:39:03 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1937.5	23020.	303.58	824.17
Stddev	8.3	74.	1.57	1.85
%RSD	.42706	.32217	.51660	.22465
#1	1935.5	23003.	305.39	823.14
#2	1946.5	23102.	302.59	826.31
#3	1930.3	22956.	302.76	823.06

Sample Name: 580-28404-A-9-C Acquired: 9/13/2011 18:45:59 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0060**	**689.6**	**-.0128**	**.0005**	**2.167**	**.01245**
Stddev	.0003	3.5	.0052	.0003	.010	.00029
%RSD	5.665	.5101	40.14	63.84	.4666	2.3663
#1	-.0058	685.7	-.0175	.0002	2.157	.01212
#2	-.0064	692.6	-.0073	.0009	2.167	.01254
#3	-.0058	690.4	-.0137	.0004	2.177	.01269

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**71.71**	**-.0215**	**.1883**	**.0112**	**.0709**	**574.8**
Stddev	.40	.0009	.0012	.0001	.0007	3.7
%RSD	.5638	3.953	.6495	1.205	.9357	.6498
#1	71.79	-.0206	.1893	.0113	.0702	572.3
#2	71.27	-.0222	.1885	.0113	.0715	579.1
#3	72.07	-.0217	.1869	.0111	.0710	572.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**4.448**	**42.17**	**17.51**	**.0010**	**4.530**	**.0049**
Stddev	.131	.20	.09	.0001	.032	.0011
%RSD	2.938	.4854	.4888	12.80	.7082	23.16
#1	4.306	42.02	17.46	.0011	4.562	.0039
#2	4.475	42.40	17.61	.0011	4.529	.0061
#3	4.563	42.08	17.46	.0009	4.498	.0048

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1423**	**-.0449**	**.0542**	**-.0141**	**.7085**	**.5315**
Stddev	.0060	.0028	.0029	.0006	.0038	.0016
%RSD	4.238	6.291	5.382	3.941	.5339	.3043
#1	.1444	-.0481	.0529	-.0147	.7057	.5333
#2	.1470	-.0435	.0575	-.0135	.7128	.5309
#3	.1355	-.0430	.0521	-.0141	.7069	.5302

Sample Name: 580-28404-A-9-C Acquired: 9/13/2011 18:45:59 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1893.5**	**22944.**	**314.58**	**810.97**
Stddev	4.9	72.	2.91	4.13
%RSD	.25689	.31482	.92534	.50986
#1	1899.0	22984.	316.86	813.74
#2	1889.7	22861.	311.30	812.95
#3	1891.7	22988.	315.58	806.22

Sample Name: 580-28404-A-10-C Acquired: 9/13/2011 18:52:53 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0069**	**722.0**	**.0300**	**.0746**	**2.766**	**.01680**
Stddev	.0002	2.8	.0018	.0006	.012	.00034
%RSD	3.126	.3932	5.890	.8427	.4434	2.0244
#1	-.0071	721.2	.0293	.0739	2.755	.01706
#2	-.0068	719.7	.0287	.0747	2.763	.01693
#3	-.0067	725.2	.0320	.0751	2.779	.01641

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**153.3**	**-.0244**	**.2227**	**.0225**	**.1434**	**699.1**
Stddev	.9	.0000	.0002	.0002	.0005	3.4
%RSD	.5893	.2012	.0782	.8283	.3452	.4872
#1	152.2	-.0244	.2227	.0227	.1440	700.6
#2	153.9	-.0244	.2226	.0224	.1433	695.2
#3	153.6	-.0245	.2229	.0224	.1430	701.5

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**9.991**	**33.46**	**11.10**	**.0049**	**20.38**	**.0165**
Stddev	.179	.04	.02	.0003	.16	.0008
%RSD	1.792	.1181	.1661	5.670	.7980	4.585
#1	9.820	33.43	11.12	.0048	20.24	.0160
#2	9.976	33.44	11.09	.0047	20.34	.0162
#3	10.18	33.50	11.11	.0052	20.56	.0174

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2412**	**-.0572**	**.0555**	**-.0063**	**1.234**	**.7207**
Stddev	.0029	.0022	.0011	.0020	.001	.0014
%RSD	1.184	3.859	1.971	32.02	.0927	.1891
#1	.2431	-.0565	.0546	-.0082	1.233	.7209
#2	.2427	-.0597	.0567	-.0063	1.234	.7219
#3	.2379	-.0554	.0553	-.0042	1.235	.7192

Sample Name: 580-28404-A-10-C Acquired: 9/13/2011 18:52:53 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1834.9	22354.	312.41	796.01
Stddev	4.7	19.	3.04	4.27
%RSD	.25352	.08474	.97323	.53647
#1	1831.2	22333.	310.15	800.73
#2	1833.4	22369.	315.87	792.42
#3	1840.1	22360.	311.22	794.87

Sample Name: 580-28404-A-11-C Acquired: 9/13/2011 18:59:42 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0091**	**641.0**	**.0560**	**.0339**	**3.673**	**.01668**
Stddev	.0002	6.6	.0006	.0004	.323	.00222
%RSD	2.593	1.030	1.102	1.144	8.788	13.306
#1	-.0092	648.6	.0554	.0341	4.014	.01923
#2	-.0088	636.9	.0558	.0335	3.373	.01515
#3	-.0093	637.5	.0566	.0342	3.631	.01567

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**93.07**	**-.0214**	**.2213**	**.0465**	**.1105**	**578.9**
Stddev	7.68	.0005	.0006	.0002	.0004	4.6
%RSD	8.255	2.346	.2694	.4666	.3418	.7999
#1	101.0	-.0220	.2208	.0463	.1103	584.2
#2	85.64	-.0212	.2220	.0467	.1109	576.7
#3	92.58	-.0210	.2213	.0464	.1102	575.8

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**9.042**	**39.38**	**28.48**	**.0019**	**1.877**	**.0416**
Stddev	.658	.14	.11	.0002	.304	.0006
%RSD	7.279	.3605	.3849	10.58	16.18	1.352
#1	9.753	39.24	28.35	.0021	2.164	.0418
#2	8.454	39.52	28.56	.0017	1.559	.0410
#3	8.919	39.39	28.53	.0020	1.908	.0420

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2322**	**-.0543**	**.0669**	**-.0242**	**.6508**	**.6728**
Stddev	.0041	.0021	.0009	.0023	.0019	.0004
%RSD	1.774	3.821	1.348	9.687	.2972	.0531
#1	.2301	-.0553	.0662	-.0225	.6487	.6724
#2	.2295	-.0557	.0679	-.0231	.6525	.6730
#3	.2370	-.0520	.0666	-.0269	.6511	.6730

Sample Name: 580-28404-A-11-C Acquired: 9/13/2011 18:59:42 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1909.5	24085.	332.43	825.71
Stddev	7.1	81.	23.32	59.77
%RSD	.37091	.33666	7.0144	7.2391
#1	1914.0	24146.	308.55	766.14
#2	1901.4	23993.	355.14	885.68
#3	1913.3	24115.	333.60	825.30

Sample Name: CCV Acquired: 9/13/2011 19:06:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.007**	**10.06**	**4.808**	**2.457**	**2.532**	**.09542**
Stddev	.002	.06	.007	.007	.033	.00169
%RSD	.1914	.6062	.1455	.3044	1.304	1.7676
#1	1.006	10.10	4.800	2.448	2.526	.09435
#2	1.009	9.989	4.809	2.459	2.503	.09454
#3	1.006	10.09	4.814	2.463	2.568	.09736
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.39**	**.4687**	**.4841**	**.4930**	**.4775**	**9.488**
Stddev	.28	.0013	.0006	.0003	.0014	.104
%RSD	1.422	.2846	.1213	.0568	.2837	1.093
#1	19.39	.4672	.4838	.4931	.4791	9.535
#2	19.12	.4689	.4838	.4933	.4767	9.561
#3	19.67	.4699	.4848	.4927	.4768	9.370
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 19:06:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.75**	**18.83**	**.4801**	**.4783**	**15.25**	**.4796**
Stddev	.21	.00	.0001	.0016	.30	.0007
%RSD	1.042	.0202	.0214	.3425	1.956	.1505
#1	19.75	18.83	.4801	.4772	15.12	.4799
#2	19.55	18.82	.4799	.4774	15.04	.4802
#3	19.96	18.83	.4801	.4801	15.59	.4788
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.624**	**2.366**	**4.721**	**2.384**	**.4731**	**.4764**
Stddev	.008	.006	.006	.004	.0008	.0006
%RSD	.1738	.2489	.1188	.1823	.1590	.1228
#1	4.616	2.360	4.715	2.380	.4738	.4759
#2	4.625	2.368	4.720	2.384	.4730	.4762
#3	4.632	2.371	4.727	2.388	.4723	.4770
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 19:06:36 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2093.4	21910.	284.63	698.60
Stddev	3.8	21.	3.35	10.76
%RSD	.18159	.09772	1.1762	1.5405
#1	2089.0	21887.	284.93	700.56
#2	2096.2	21929.	287.82	708.25
#3	2094.9	21913.	281.14	687.00

Sample Name: CCB Acquired: 9/13/2011 19:15:33 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0001**	**.0451**	**.0017**	**.0027**	**.0014**	**-.00038**
Stddev	.0002	.2221	.0007	.0002	.0004	.00029
%RSD	230.9	492.3	41.58	5.918	29.00	75.550
#1	.0000	.2778	.0023	.0025	.0012	-.00054
#2	.0004	-.1645	.0020	.0027	.0018	-.00055
#3	-.0001	.0220	.0009	.0028	.0011	-.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0250**	**.0000**	**.0000**	**.0000**	**.0009**	**-.0095**
Stddev	.0973	.0000	.0001	.0001	.0001	.0441
%RSD	388.9	379.4	244.9	441.0	15.08	465.3
#1	-.0309	.0000	.0001	-.0001	.0010	-.0349
#2	-.0314	.0000	.0001	.0000	.0007	.0414
#3	.1374	.0000	-.0001	.0002	.0009	-.0349
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 19:15:33 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2297**	**.0009**	**.0005**	**.0001**	**-.1991**	**.0000**
Stddev	.1214	.0021	.0001	.0002	.0119	.0003
%RSD	52.84	241.3	15.66	167.8	5.966	691.6
#1	.3415	-.0008	.0004	.0000	-.2113	.0004
#2	.1006	.0032	.0005	.0003	-.1876	.0001
#3	.2470	.0002	.0004	.0001	-.1983	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0024**	**.0017**	**-.0008**	**.0030**	**.0000**	**.0002**
Stddev	.0036	.0025	.0019	.0011	.0004	.0002
%RSD	150.5	145.3	245.8	36.06	4623.	101.4
#1	.0063	-.0004	-.0017	.0017	-.0002	.0002
#2	.0013	.0044	-.0020	.0037	.0004	.0004
#3	-.0005	.0011	.0014	.0035	-.0002	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 19:15:33 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2303.1	22588.	285.84	721.95
Stddev	7.7	18.	5.93	14.35
%RSD	.33322	.08131	2.0757	1.9873
#1	2297.4	22579.	286.90	731.73
#2	2300.0	22575.	279.44	705.48
#3	2311.8	22609.	291.16	728.64

Sample Name: MB 580-95118/16-A Acquired: 9/13/2011 19:22:29 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0003**	**.0341**	**-.0010**	**.0012**	**.0024**	**-.00053**
Stddev	.0007	.2505	.0005	.0003	.0013	.00111
%RSD	288.2	734.3	46.49	23.82	52.70	209.42
#1	.0010	.2927	-.0015	.0012	.0038	-.00173
#2	.0003	.0171	-.0009	.0009	.0012	.00045
#3	-.0005	-.2074	-.0006	.0015	.0023	-.00031

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2437**	**.0001**	**.0000**	**.0002**	**.0038**	**.0482**
Stddev	.0421	.0000	.0001	.0002	.0001	.0370
%RSD	17.27	55.68	1732.	87.68	3.897	76.71
#1	.2248	.0000	-.0001	.0002	.0036	.0059
#2	.2144	.0000	.0001	.0004	.0039	.0746
#3	.2919	.0001	.0000	.0001	.0037	.0642

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2023**	**.0036**	**.0009**	**.0001**	**-.1439**	**.0011**
Stddev	.1089	.0003	.0001	.0003	.0307	.0006
%RSD	53.84	8.862	6.264	428.3	21.33	56.90
#1	.1458	.0039	.0009	.0004	-.1762	.0017
#2	.3278	.0033	.0009	-.0001	-.1151	.0010
#3	.1333	.0038	.0010	-.0001	-.1405	.0005

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0009**	**.0018**	**.0003**	**-.0001**	**-.0001**	**.0051**
Stddev	.0007	.0016	.0015	.0017	.0001	.0004
%RSD	81.72	84.40	520.4	1468.	195.2	7.303
#1	.0015	.0036	-.0009	-.0021	-.0002	.0053
#2	.0001	.0010	-.0002	.0005	.0000	.0047
#3	.0012	.0009	.0019	.0012	.0001	.0054

Sample Name: MB 580-95118/16-A Acquired: 9/13/2011 19:22:29 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2294.9	21843.	277.17	728.70
Stddev	3.5	15.	1.41	8.90
%RSD	.15258	.06786	.50874	1.2214
#1	2293.3	21828.	277.88	728.19
#2	2298.9	21843.	278.09	720.06
#3	2292.5	21857.	275.55	737.84

Sample Name: LCSD 580-95118/18-A Acquired: 9/13/2011 19:35:55 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6065**	**4.047**	**3.938**	**5.105**	**4.098**	**.10121**
Stddev	.0004	.199	.006	.014	.001	.00202
%RSD	.0728	4.917	.1421	.2769	.0242	1.9921
#1	.6064	3.891	3.938	5.114	4.097	.10036
#2	.6060	4.271	3.944	5.112	4.099	.10351
#3	.6069	3.978	3.933	5.088	4.099	.09975

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**20.03**	**.0953**	**.9908**	**.4097**	**.4903**	**21.63**
Stddev	.14	.0004	.0014	.0022	.0025	.30
%RSD	.7237	.3712	.1461	.5490	.5055	1.384
#1	20.14	.0949	.9892	.4079	.4891	21.30
#2	20.09	.0955	.9912	.4089	.4885	21.88
#3	19.87	.0955	.9920	.4122	.4931	21.71

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**20.00**	**19.08**	**1.003**	**4.905**	**20.46**	**.9941**
Stddev	.23	.09	.005	.007	.12	.0015
%RSD	1.129	.4713	.4796	.1517	.5799	.1549
#1	20.20	19.02	1.000	4.897	20.48	.9959
#2	19.76	19.03	1.000	4.906	20.33	.9935
#3	20.04	19.18	1.008	4.911	20.57	.9930

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9475**	**2.898**	**3.779**	**3.856**	**.9888**	**.9731**
Stddev	.0035	.006	.003	.005	.0029	.0014
%RSD	.3658	.2152	.0872	.1364	.2969	.1419
#1	.9473	2.896	3.775	3.852	.9871	.9715
#2	.9441	2.904	3.782	3.853	.9871	.9740
#3	.9510	2.892	3.778	3.862	.9922	.9737

Sample Name: LCSD 580-95118/18-A Acquired: 9/13/2011 19:35:55 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2053.7	21644.	282.78	712.42
Stddev	5.0	92.	2.29	4.45
%RSD	.24454	.42380	.80930	.62502
#1	2056.1	21711.	282.35	707.88
#2	2057.1	21681.	280.73	716.78
#3	2048.0	21539.	285.25	712.61

Sample Name: LCSSRM 580-95118/19- Acquired: 9/13/2011 19:42:25 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5609**	**102.1**	**1.118**	**1.729**	**3.540**	**.92836**
Stddev	.0010	.8	.007	.003	.045	.01679
%RSD	.1809	.7524	.6138	.1907	1.277	1.8089
#1	.5621	101.4	1.115	1.730	3.560	.92569
#2	.5603	102.9	1.126	1.731	3.572	.94633
#3	.5604	101.8	1.112	1.725	3.488	.91306

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**69.50**	**1.080**	**1.428**	**1.000**	**.7612**	**139.7**
Stddev	.90	.002	.002	.003	.0036	.6
%RSD	1.301	.1674	.1471	.3093	.4749	.4355
#1	70.22	1.078	1.426	1.003	.7640	139.1
#2	69.79	1.081	1.430	.9970	.7572	140.3
#3	68.48	1.081	1.429	1.002	.7625	139.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**27.50**	**28.60**	**4.695**	**.9164**	**7.497**	**1.176**
Stddev	.19	.06	.029	.0004	.108	.004
%RSD	.6977	.2029	.6193	.0446	1.442	.3363
#1	27.71	28.65	4.708	.9159	7.527	1.177
#2	27.45	28.54	4.715	.9166	7.587	1.180
#3	27.34	28.62	4.662	.9166	7.377	1.172

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.615**	**1.012**	**2.143**	**1.744**	**1.141**	**3.085**
Stddev	.002	.000	.003	.008	.003	.003
%RSD	.1278	.0163	.1157	.4555	.2170	.1030
#1	1.613	1.012	2.140	1.744	1.143	3.085
#2	1.617	1.012	2.145	1.751	1.138	3.089
#3	1.614	1.012	2.142	1.736	1.143	3.082

Sample Name: LCSSRM 580-95118/19- Acquired: 9/13/2011 19:42:25 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2022.1	22217.	293.05	727.13
Stddev	2.9	28.	3.65	7.21
%RSD	.14234	.12778	1.2458	.99131
#1	2021.1	22230.	292.51	720.81
#2	2019.8	22237.	289.70	725.61
#3	2025.3	22185.	296.94	734.98

Sample Name: 580-28356-A-11-A sd Acquired: 9/13/2011 19:49:04 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0006**	**26.19**	**.0301**	**.0090**	**.0785**	**-.00002**
Stddev	.0002	.39	.0034	.0002	.0021	.00070
%RSD	25.62	1.482	11.41	2.361	2.615	3386.4
#1	.0004	26.63	.0265	.0090	.0802	.00074
#2	.0007	26.06	.0304	.0092	.0762	-.00064
#3	.0007	25.89	.0333	.0088	.0790	-.00016

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.828**	**-.0010**	**.0107**	**.0315**	**.0364**	**46.41**
Stddev	.072	.0001	.0002	.0004	.0007	.42
%RSD	3.952	8.185	2.242	1.346	2.053	.9031
#1	1.899	-.0011	.0104	.0319	.0372	46.83
#2	1.754	-.0010	.0109	.0311	.0358	45.99
#3	1.831	-.0011	.0107	.0315	.0361	46.42

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.587**	**3.966**	**.4269**	**.0062**	**.0692**	**.0169**
Stddev	.052	.003	.0003	.0004	.0116	.0001
%RSD	3.302	.0841	.0648	6.137	16.72	.7381
#1	1.632	3.962	.4267	.0066	.0558	.0171
#2	1.529	3.966	.4267	.0064	.0757	.0169
#3	1.601	3.969	.4272	.0058	.0761	.0169

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0294**	**-.0019**	**.0018**	**.0012**	**.1337**	**.0524**
Stddev	.0009	.0011	.0022	.0026	.0005	.0003
%RSD	3.104	56.90	122.5	221.3	.3770	.5669
#1	.0300	-.0026	.0018	.0023	.1331	.0521
#2	.0283	-.0025	.0041	-.0018	.1341	.0525
#3	.0298	-.0007	-.0004	.0031	.1339	.0526

Sample Name: 580-28356-A-11-A sd Acquired: 9/13/2011 19:49:04 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2201.5	23051.	289.56	692.05
Stddev	8.9	39.	10.36	22.36
%RSD	.40499	.17022	3.5774	3.2316
#1	2194.7	23006.	277.90	666.53
#2	2198.1	23071.	293.10	701.40
#3	2211.6	23076.	297.69	708.22

Sample Name: 580-28356-A-11-A Acquired: 9/13/2011 19:55:54 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0011	132.2	.1429	.0165	.3609	.00107
Stddev	.0002	1.3	.0013	.0007	.0045	.00038
%RSD	17.04	.9849	.8990	4.274	1.251	35.149
#1	.0013	131.8	.1422	.0158	.3581	.00150
#2	.0011	131.2	.1444	.0164	.3585	.00085
#3	.0009	133.7	.1421	.0172	.3662	.00085

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	8.622	-.0058	.0502	.1572	.1817	231.7
Stddev	.057	.0003	.0005	.0002	.0012	1.3
%RSD	.6571	4.441	.9479	.1320	.6878	.5733
#1	8.560	-.0057	.0508	.1574	.1831	230.6
#2	8.633	-.0061	.0499	.1570	.1810	231.4
#3	8.672	-.0056	.0500	.1571	.1809	233.2

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	6.298	19.00	2.106	.0271	1.339	.0817
Stddev	.055	.08	.009	.0003	.037	.0012
%RSD	.8769	.4347	.4482	1.130	2.779	1.462
#1	6.318	19.09	2.117	.0269	1.370	.0812
#2	6.235	18.95	2.101	.0270	1.298	.0831
#3	6.340	18.95	2.099	.0274	1.348	.0809

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.1391	-.0115	.0146	.0008	.6678	.2582
Stddev	.0017	.0023	.0045	.0021	.0020	.0007
%RSD	1.199	19.61	31.01	271.9	.2956	.2757
#1	.1386	-.0105	.0175	-.0010	.6700	.2590
#2	.1410	-.0141	.0169	.0002	.6662	.2579
#3	.1378	-.0100	.0094	.0031	.6673	.2576

Sample Name: 580-28356-A-11-A Acquired: 9/13/2011 19:55:54 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2087.5	22662.	312.14	726.02
Stddev	.8	40.	4.30	7.12
%RSD	.03642	.17536	1.3780	.98103
#1	2086.7	22617.	317.11	727.14
#2	2088.2	22693.	309.77	732.52
#3	2087.6	22676.	309.55	718.41

Sample Name: 580-28356-A-11-B DU Acquired: 9/13/2011 20:02:46 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0011**	**127.6**	**.1712**	**.0175**	**.3477**	**.00100**
Stddev	.0001	.4	.0024	.0003	.0044	.00056
%RSD	13.35	.2862	1.388	1.995	1.252	56.043
#1	.0012	127.2	.1693	.0175	.3506	.00123
#2	.0009	127.9	.1739	.0179	.3427	.00140
#3	.0012	127.8	.1704	.0172	.3497	.00036

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**8.981**	**-.0058**	**.0513**	**.1467**	**.1929**	**241.1**
Stddev	.042	.0002	.0001	.0004	.0003	1.2
%RSD	.4713	3.311	.1229	.3021	.1638	.5120
#1	9.030	-.0056	.0513	.1471	.1932	242.3
#2	8.960	-.0058	.0514	.1466	.1925	241.0
#3	8.954	-.0060	.0513	.1462	.1929	239.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**6.453**	**15.44**	**1.791**	**.0280**	**1.518**	**.0765**
Stddev	.077	.03	.004	.0001	.064	.0004
%RSD	1.198	.1984	.2371	.4498	4.219	.4764
#1	6.489	15.44	1.794	.0281	1.542	.0768
#2	6.364	15.41	1.786	.0279	1.445	.0765
#3	6.506	15.48	1.793	.0281	1.567	.0761

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1437**	**-.0117**	**.0163**	**.0006**	**.7092**	**.3161**
Stddev	.0016	.0007	.0010	.0031	.0014	.0007
%RSD	1.113	5.639	6.022	538.3	.1913	.2312
#1	.1454	-.0121	.0157	-.0027	.7097	.3166
#2	.1435	-.0120	.0157	.0035	.7076	.3165
#3	.1422	-.0109	.0174	.0009	.7102	.3153

Sample Name: 580-28356-A-11-B DU Acquired: 9/13/2011 20:02:46 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2087.7	22278.	293.10	722.15
Stddev	3.5	41.	1.27	8.36
%RSD	.16780	.18592	.43248	1.1579
#1	2086.5	22230.	294.39	714.52
#2	2084.8	22298.	291.86	731.09
#3	2091.6	22305.	293.04	720.83

Sample Name: 580-28356-A-11-C MS Acquired: 9/13/2011 20:09:45 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6150**	**146.5**	**4.052**	**4.863**	**4.418**	**.09976**
Stddev	.0008	1.9	.011	.003	.027	.00119
%RSD	.1323	1.319	.2585	.0623	.6121	1.1955
#1	.6141	144.5	4.063	4.862	4.393	.09856
#2	.6156	146.5	4.050	4.861	4.416	.10094
#3	.6154	148.3	4.042	4.866	4.446	.09978

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**30.13**	**.0850**	**1.0000**	**.5524**	**.6949**	**247.3**
Stddev	.28	.0005	.0035	.0012	.0021	1.5
%RSD	.9292	.6093	.3524	.2085	.3027	.6189
#1	29.81	.0854	1.003	.5514	.6956	245.7
#2	30.30	.0852	1.000	.5536	.6965	247.2
#3	30.28	.0844	.9964	.5521	.6925	248.8

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**26.55**	**33.60**	**2.317**	**4.754**	**22.87**	**1.080**
Stddev	.12	.05	.006	.012	.17	.001
%RSD	.4592	.1362	.2546	.2585	.7426	.1218
#1	26.57	33.64	2.316	4.767	22.69	1.078
#2	26.66	33.62	2.323	4.752	22.91	1.081
#3	26.42	33.55	2.311	4.742	23.02	1.080

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.077**	**1.948**	**3.852**	**3.775**	**1.633**	**1.236**
Stddev	.003	.004	.009	.007	.003	.003
%RSD	.2504	.1998	.2458	.1767	.1844	.2624
#1	1.075	1.952	3.863	3.779	1.634	1.240
#2	1.080	1.948	3.847	3.779	1.636	1.236
#3	1.077	1.944	3.847	3.767	1.630	1.233

Sample Name: 580-28356-A-11-C MS Acquired: 9/13/2011 20:09:45 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1992.4	22008.	297.18	740.43
Stddev	2.6	52.	5.62	2.97
%RSD	.13205	.23640	1.8907	.40063
#1	1994.1	21960.	297.71	740.63
#2	1989.4	22001.	291.31	737.37
#3	1993.7	22063.	302.51	743.29

Sample Name: 580-28356-A-11-D MSD Acquired: 9/13/2011 20:16:26 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6172**	**149.2**	**4.045**	**4.856**	**4.455**	**.10189**
Stddev	.0015	.7	.010	.015	.020	.00062
%RSD	.2429	.4608	.2429	.3145	.4425	.61085
#1	.6156	149.2	4.045	4.864	4.448	.10201
#2	.6185	148.5	4.035	4.839	4.440	.10244
#3	.6176	149.9	4.055	4.866	4.477	.10121

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**31.36**	**.0866**	**1.011**	**.5491**	**.7314**	**268.6**
Stddev	.09	.0000	.002	.0034	.0012	.5
%RSD	.2855	.0519	.1649	.6182	.1667	.1974
#1	31.29	.0866	1.011	.5471	.7303	268.4
#2	31.33	.0866	1.010	.5472	.7327	268.2
#3	31.46	.0867	1.013	.5530	.7313	269.2

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**26.71**	**34.99**	**2.541**	**4.792**	**23.56**	**1.065**
Stddev	.32	.10	.006	.005	.15	.002
%RSD	1.187	.2964	.2404	.1100	.6247	.1802
#1	26.71	34.87	2.534	4.789	23.67	1.063
#2	26.39	35.07	2.544	4.788	23.40	1.065
#3	27.03	35.02	2.545	4.798	23.63	1.067

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.121**	**1.974**	**3.862**	**3.762**	**1.708**	**1.641**
Stddev	.002	.003	.019	.017	.005	.002
%RSD	.2046	.1397	.4812	.4590	.2954	.1440
#1	1.119	1.971	3.864	3.758	1.703	1.639
#2	1.120	1.977	3.842	3.747	1.712	1.641
#3	1.124	1.973	3.879	3.781	1.710	1.644

Sample Name: 580-28356-A-11-D MSD Acquired: 9/13/2011 20:16:26 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1995.4	21567.	288.81	726.12
Stddev	3.9	22.	1.70	2.56
%RSD	.19545	.10142	.58825	.35200
#1	1999.6	21592.	287.61	726.00
#2	1991.8	21550.	290.75	728.73
#3	1994.8	21558.	288.06	723.62

Sample Name: 580-28356-A-11-A pds Acquired: 9/13/2011 20:23:05 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5607**	**126.3**	**3.824**	**4.629**	**4.037**	**.09539**
Stddev	.0005	.6	.002	.017	.073	.00028
%RSD	.0898	.4542	.0598	.3715	1.808	.29500
#1	.5612	125.7	3.825	4.614	3.954	.09509
#2	.5602	126.2	3.822	4.625	4.094	.09544
#3	.5608	126.9	3.826	4.648	4.062	.09564

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**25.34**	**.0844**	**.9549**	**.5127**	**.6361**	**240.9**
Stddev	.68	.0002	.0024	.0027	.0038	1.5
%RSD	2.697	.2247	.2485	.5173	.6009	.6253
#1	24.56	.0846	.9573	.5155	.6402	241.5
#2	25.85	.0845	.9548	.5124	.6353	242.1
#3	25.61	.0842	.9525	.5103	.6327	239.2

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**23.54**	**35.23**	**2.883**	**4.381**	**19.07**	**.9930**
Stddev	.45	.14	.013	.009	.32	.0016
%RSD	1.932	.3929	.4351	.1954	1.653	.1637
#1	23.01	35.39	2.896	4.391	18.71	.9934
#2	23.78	35.18	2.879	4.377	19.26	.9944
#3	23.82	35.13	2.872	4.375	19.26	.9912

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.023**	**2.693**	**3.681**	**3.559**	**1.546**	**1.139**
Stddev	.003	.003	.008	.007	.007	.001
%RSD	.2976	.0938	.2152	.1918	.4626	.0853
#1	1.023	2.691	3.685	3.560	1.553	1.140
#2	1.026	2.696	3.671	3.566	1.544	1.139
#3	1.020	2.692	3.685	3.552	1.540	1.139

Sample Name: 580-28356-A-11-A pds Acquired: 9/13/2011 20:23:05 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2053.8	21843.	286.69	742.57
Stddev	6.5	90.	3.32	11.69
%RSD	.31551	.41305	1.1576	1.5738
#1	2047.7	21751.	290.41	756.06
#2	2053.0	21846.	285.63	735.44
#3	2060.6	21932.	284.04	736.21

Sample Name: CCV Acquired: 9/13/2011 20:29:44 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.017**	**10.01**	**4.835**	**2.481**	**2.386**	**.09873**
Stddev	.002	.22	.007	.002	.008	.00126
%RSD	.1576	2.182	.1471	.0781	.3224	1.2748
#1	1.018	9.890	4.840	2.483	2.382	.09766
#2	1.018	10.26	4.837	2.479	2.381	.10012
#3	1.015	9.880	4.827	2.480	2.395	.09840
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.42**	**.4867**	**.4904**	**.4883**	**.4782**	**9.705**
Stddev	.15	.0021	.0012	.0017	.0018	.055
%RSD	.7822	.4356	.2443	.3518	.3688	.5645
#1	19.32	.4888	.4915	.4894	.4801	9.676
#2	19.34	.4867	.4907	.4892	.4777	9.768
#3	19.59	.4846	.4891	.4864	.4767	9.670
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 20:29:44 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.99**	**19.39**	**.4848**	**.4833**	**14.22**	**.4739**
Stddev	.07	.04	.0019	.0009	.12	.0008
%RSD	.3621	.2297	.3953	.1922	.8470	.1782
#1	18.93	19.40	.4865	.4834	14.09	.4743
#2	19.07	19.43	.4853	.4841	14.23	.4745
#3	18.98	19.34	.4827	.4823	14.33	.4730
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.725**	**2.382**	**4.829**	**2.410**	**.4808**	**.4774**
Stddev	.024	.005	.016	.014	.0017	.0013
%RSD	.4980	.2144	.3367	.5689	.3555	.2761
#1	4.751	2.386	4.837	2.423	.4817	.4785
#2	4.718	2.383	4.840	2.409	.4819	.4779
#3	4.706	2.376	4.810	2.396	.4788	.4760
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 20:29:44 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2131.3	21818.	283.43	745.63
Stddev	4.9	54.	3.03	1.87
%RSD	.22953	.24790	1.0685	.25092
#1	2127.4	21768.	285.06	747.57
#2	2129.8	21810.	279.94	743.84
#3	2136.8	21876.	285.30	745.47

Sample Name: CCB Acquired: 9/13/2011 20:36:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0001**	**-.1023**	**.0002**	**.0078**	**.0008**	**-.00094**
Stddev	.0005	.1182	.0016	.0007	.0015	.00091
%RSD	344.8	115.5	847.7	9.169	180.3	97.773
#1	.0004	-.0341	-.0016	.0086	-.0005	-.00155
#2	-.0005	-.0341	.0008	.0077	.0024	-.00137
#3	-.0003	-.2388	.0014	.0071	.0006	.00012
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0986**	**.0001**	**.0001**	**.0001**	**.0011**	**-.0158**
Stddev	.0187	.0001	.0001	.0001	.0002	.0600
%RSD	18.97	171.2	170.4	106.2	17.43	379.8
#1	.0771	.0001	.0001	.0002	.0013	.0506
#2	.1073	-.0001	.0000	.0000	.0009	-.0661
#3	.1114	.0002	.0000	.0003	.0011	-.0319
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 20:36:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.1505**	**.0008**	**.0001**	**.0005**	**-.2430**	**.0001**
Stddev	.2165	.0011	.0001	.0001	.0219	.0007
%RSD	143.8	133.0	74.63	24.01	9.014	855.7
#1	.0682	-.0001	.0000	.0006	-.2491	.0000
#2	.3960	.0020	.0000	.0004	-.2186	.0009
#3	-.0128	.0005	.0001	.0004	-.2611	-.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0008**	**.0027**	**-.0005**	**.0014**	**.0000**	**-.0001**
Stddev	.0007	.0028	.0017	.0008	.000	.0002
%RSD	89.78	106.2	307.6	54.33	474.5	217.9
#1	.0016	.0035	.0009	.0005	.0000	.0000
#2	.0007	.0050	-.0002	.0020	-.0001	-.0003
#3	.0002	-.0005	-.0024	.0016	.0000	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 20:36:13 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2302.7	21833.	280.52	729.19
Stddev	4.5	19.	2.12	1.95
%RSD	.19509	.08872	.75499	.26777
#1	2297.6	21824.	279.53	729.60
#2	2306.2	21856.	282.95	727.07
#3	2304.3	21821.	279.08	730.91

Sample Name: 580-28356-A-13-A Acquired: 9/13/2011 20:45:41 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0810**	**179.5**	**1.967**	**.0167**	**.0969**	**.00076**
Stddev	.0005	.7	.005	.0003	.0034	.00044
%RSD	.6351	.3880	.2423	1.792	3.457	58.094
#1	.0816	180.3	1.971	.0165	.0955	.00029
#2	.0808	179.0	1.962	.0166	.1008	.00084
#3	.0807	179.1	1.969	.0170	.0945	.00116

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**3.925**	**-.0091**	**.0346**	**.0712**	**21.98**	**307.7**
Stddev	.067	.0000	.0005	.0009	.13	2.1
%RSD	1.713	.4338	1.313	1.276	.6015	.6853
#1	3.848	-.0091	.0351	.0720	22.12	309.9
#2	3.974	-.0091	.0343	.0702	21.86	305.7
#3	3.952	-.0091	.0345	.0714	21.97	307.4

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**3.002**	**6.385**	**2.627**	**.0221**	**1.174**	**.0192**
Stddev	.116	.033	.015	.0004	.020	.0003
%RSD	3.861	.5162	.5784	1.951	1.716	1.807
#1	2.955	6.423	2.643	.0217	1.191	.0192
#2	3.133	6.367	2.613	.0225	1.179	.0196
#3	2.916	6.366	2.626	.0220	1.152	.0189

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**6.181**	**-.0067**	**.0286**	**-.0019**	**.5390**	**.2141**
Stddev	.024	.0012	.0044	.0012	.0033	.0003
%RSD	.3813	18.37	15.46	61.01	.6065	.1180
#1	6.201	-.0054	.0337	-.0032	.5423	.2142
#2	6.187	-.0069	.0259	-.0011	.5358	.2143
#3	6.155	-.0078	.0261	-.0014	.5388	.2138

Sample Name: 580-28356-A-13-A Acquired: 9/13/2011 20:45:41 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2150.5**	**22419.**	**292.73**	**788.74**
Stddev	7.1	94.	5.51	7.80
%RSD	.33154	.41916	1.8806	.98949
#1	2143.1	22320.	299.01	793.46
#2	2157.3	22506.	290.47	779.73
#3	2151.0	22433.	288.72	793.03

Sample Name: 580-28356-A-14-A Acquired: 9/13/2011 20:52:33 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0267**	**98.24**	**.4825**	**.0155**	**.0640**	**.00093**
Stddev	.0003	.92	.0021	.0003	.0032	.00073
%RSD	1.164	.9380	.4310	1.966	4.949	77.875
#1	.0269	97.19	.4820	.0154	.0620	.00099
#2	.0269	98.91	.4847	.0152	.0676	.00018
#3	.0264	98.62	.4806	.0158	.0623	.00163

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**3.385**	**-.0027**	**.0200**	**.0540**	**14.69**	**152.9**
Stddev	.067	.0001	.0001	.0002	.01	.5
%RSD	1.976	3.096	.2975	.3402	.0981	.3507
#1	3.310	-.0026	.0201	.0538	14.71	152.5
#2	3.404	-.0028	.0201	.0542	14.69	153.5
#3	3.440	-.0026	.0200	.0540	14.68	152.7

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.838**	**2.722**	**.9564**	**.0095**	**1.667**	**.0173**
Stddev	.015	.009	.0017	.0004	.072	.0004
%RSD	.8241	.3215	.1820	3.842	4.337	2.175
#1	1.820	2.730	.9578	.0094	1.628	.0178
#2	1.844	2.722	.9569	.0091	1.750	.0171
#3	1.849	2.713	.9544	.0099	1.622	.0171

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**2.168**	**-.0014**	**.0101**	**.0019**	**.3877**	**.3210**
Stddev	.005	.0016	.0006	.0023	.0007	.0010
%RSD	.2184	116.7	5.580	124.8	.1733	.2996
#1	2.162	-.0022	.0107	-.0008	.3869	.3221
#2	2.171	-.0025	.0096	.0032	.3879	.3204
#3	2.169	.0005	.0099	.0032	.3881	.3204

Sample Name: 580-28356-A-14-A Acquired: 9/13/2011 20:52:33 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2200.2	22029.	285.93	753.21
Stddev	7.8	3.	5.90	15.60
%RSD	.35619	.01201	2.0634	2.0715
#1	2191.3	22027.	284.89	760.99
#2	2203.7	22028.	280.61	735.25
#3	2205.8	22032.	292.28	763.39

Sample Name: 580-28356-A-15-A Acquired: 9/13/2011 20:59:29 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0152**	**303.1**	**.5768**	**.0100**	**.0613**	**.00346**
Stddev	.0002	2.7	.0018	.0002	.0013	.00067
%RSD	1.405	.8988	.3131	1.502	2.121	19.248
#1	.0154	300.4	.5781	.0100	.0598	.00315
#2	.0154	305.8	.5747	.0099	.0622	.00423
#3	.0150	303.0	.5775	.0102	.0618	.00301

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**13.59**	**-.0077**	**.0319**	**.1053**	**10.92**	**263.2**
Stddev	.17	.0000	.0002	.0003	.03	2.6
%RSD	1.256	.3263	.5115	.2866	.2313	.9757
#1	13.43	-.0077	.0317	.1053	10.89	261.5
#2	13.57	-.0077	.0320	.1049	10.93	266.1
#3	13.77	-.0077	.0319	.1055	10.93	262.0

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.579**	**5.840**	**.8913**	**.0094**	**3.111**	**.0227**
Stddev	.082	.008	.0019	.0004	.033	.0003
%RSD	5.205	.1353	.2167	3.800	1.060	1.305
#1	1.669	5.831	.8895	.0096	3.138	.0226
#2	1.507	5.844	.8912	.0090	3.074	.0225
#3	1.561	5.846	.8933	.0096	3.120	.0230

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9122**	**-.0133**	**.0214**	**.0019**	**.4645**	**.2311**
Stddev	.0013	.0035	.0035	.0041	.0013	.0009
%RSD	.1450	26.52	16.27	222.7	.2764	.3911
#1	.9137	-.0174	.0199	.0026	.4631	.2319
#2	.9111	-.0118	.0254	-.0026	.4656	.2313
#3	.9119	-.0108	.0190	.0055	.4647	.2302

Sample Name: 580-28356-A-15-A Acquired: 9/13/2011 20:59:29 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2097.4**	**22290.**	**291.74**	**783.45**
Stddev	2.6	15.	2.96	9.03
%RSD	.12311	.06511	1.0129	1.1528
#1	2096.3	22306.	291.39	786.60
#2	2095.5	22278.	294.85	790.48
#3	2100.4	22287.	288.98	773.26

Sample Name: 580-28356-A-16-A Acquired: 9/13/2011 21:06:24 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0193**	**487.6**	**.6869**	**.0135**	**.1056**	**.00439**
Stddev	.0002	4.0	.0020	.0008	.0032	.00120
%RSD	1.123	.8281	.2883	5.956	3.036	27.338
#1	.0194	489.5	.6891	.0144	.1026	.00410
#2	.0195	490.3	.6857	.0130	.1053	.00571
#3	.0191	483.0	.6857	.0131	.1090	.00336

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**15.73**	**-.0074**	**.0224**	**.1567**	**11.76**	**256.5**
Stddev	.11	.0002	.0002	.0009	.03	1.6
%RSD	.6985	2.636	.9499	.5532	.2793	.6272
#1	15.68	-.0075	.0224	.1574	11.78	256.7
#2	15.66	-.0074	.0222	.1569	11.77	258.1
#3	15.86	-.0071	.0227	.1558	11.72	254.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.854**	**5.731**	**.6763**	**.0102**	**3.518**	**.0328**
Stddev	.064	.027	.0026	.0002	.022	.0002
%RSD	3.459	.4700	.3872	2.082	.6151	.6801
#1	1.907	5.748	.6782	.0100	3.495	.0330
#2	1.783	5.746	.6774	.0101	3.521	.0326
#3	1.873	5.700	.6733	.0104	3.537	.0328

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9812**	**-.0118**	**.0266**	**-.0036**	**.4795**	**.2967**
Stddev	.0018	.0002	.0059	.0013	.0019	.0001
%RSD	.1875	1.482	22.25	35.78	.4026	.0482
#1	.9816	-.0118	.0209	-.0048	.4805	.2968
#2	.9792	-.0119	.0327	-.0022	.4808	.2968
#3	.9829	-.0116	.0262	-.0037	.4773	.2966

Sample Name: 580-28356-A-16-A Acquired: 9/13/2011 21:06:24 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2038.1	22125.	297.71	781.54
Stddev	3.8	15.	2.25	14.30
%RSD	.18596	.06910	.75504	1.8302
#1	2033.7	22137.	300.17	794.63
#2	2040.4	22108.	297.19	783.72
#3	2040.1	22129.	295.77	766.27

Sample Name: 580-28356-A-17-A Acquired: 9/13/2011 21:13:14 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0095**	**535.3**	**87.84**	**.1029**	**1.296**	**.01063**
Stddev	.0001	2.7	.08	.0006	.015	.00132
%RSD	.9376	.5116	.0932	.5625	1.119	12.451
#1	.0096	532.4	87.93	.1031	1.285	.00934
#2	.0094	537.9	87.78	.1022	1.312	.01198
#3	.0095	535.6	87.81	.1033	1.290	.01056

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**48.97**	**.0254**	**.3845**	**.1550**	**2.209**	**1011.**
Stddev	.55	.0010	.0011	.0002	.006	7.
%RSD	1.124	3.986	.2752	.1546	.2615	.6982
#1	48.67	.0266	.3853	.1549	2.204	1004.
#2	49.60	.0249	.3848	.1549	2.215	1019.
#3	48.63	.0249	.3833	.1553	2.207	1010.

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**21.87**	**74.74**	**65.90**	**.1514**	**.4521**	**.1120**
Stddev	.25	.13	.03	.0004	.0197	.0021
%RSD	1.138	.1713	.0507	.2419	4.365	1.858
#1	21.82	74.60	65.94	.1518	.4297	.1143
#2	22.13	74.84	65.87	.1511	.4667	.1104
#3	21.64	74.80	65.89	.1513	.4599	.1113

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.787**	**.4031**	**.1367**	**.0125**	**1.370**	**8.469**
Stddev	.003	.0014	.0036	.0036	.001	.011
%RSD	.1543	.3375	2.618	29.23	.1040	.1300
#1	1.790	.4042	.1328	.0090	1.369	8.481
#2	1.788	.4016	.1398	.0121	1.370	8.460
#3	1.784	.4034	.1375	.0163	1.372	8.466

Sample Name: 580-28356-A-17-A Acquired: 9/13/2011 21:13:14 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1954.2	21756.	299.76	834.05
Stddev	3.6	16.	3.47	3.52
%RSD	.18444	.07344	1.1562	.42218
#1	1957.4	21755.	301.92	836.12
#2	1954.9	21740.	301.60	829.99
#3	1950.3	21772.	295.76	836.06

Sample Name: 580-28356-A-18-A Acquired: 9/13/2011 21:19:58 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0228**	**414.9**	**44.30**	**.1099**	**1.819**	**.00707**
Stddev	.0004	2.0	.10	.0005	.052	.00068
%RSD	1.738	.4896	.2165	.4525	2.864	9.6608
#1	.0228	413.9	44.40	.1104	1.763	.00749
#2	.0233	413.5	44.30	.1095	1.831	.00629
#3	.0225	417.2	44.20	.1098	1.865	.00745

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**39.02**	**.0325**	**.3346**	**.1528**	**2.008**	**788.1**
Stddev	.91	.0007	.0004	.0006	.008	4.8
%RSD	2.326	2.262	.1137	.3769	.3804	.6135
#1	37.99	.0333	.3349	.1524	2.004	784.2
#2	39.37	.0324	.3342	.1525	2.003	786.5
#3	39.70	.0318	.3347	.1534	2.017	793.5

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**30.32**	**76.96**	**^ *****	**.0818**	**.6567**	**.1167**
Stddev	1.03	.17	-----	.0005	.0598	.0015
%RSD	3.391	.2245	-----	.5946	9.112	1.328
#1	29.31	76.79	^ -----	.0812	.6006	.1182
#2	30.28	76.94	^ -----	.0819	.6499	.1151
#3	31.37	77.14	^ -----	.0822	.7197	.1167

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.062**	**.1555**	**.2183**	**-.0885**	**1.327**	**8.509**
Stddev	.004	.0021	.0071	.0032	.003	.016
%RSD	.3493	1.365	3.254	3.620	.2113	.1833
#1	1.065	.1570	.2136	-.0881	1.325	8.525
#2	1.063	.1565	.2148	-.0919	1.325	8.507
#3	1.058	.1531	.2264	-.0855	1.330	8.495

Sample Name: 580-28356-A-18-A Acquired: 9/13/2011 21:19:58 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1953.5	21872.	298.83	824.77
Stddev	1.1	56.	4.97	20.13
%RSD	.05536	.25756	1.6639	2.4401
#1	1954.7	21911.	303.97	847.03
#2	1952.8	21896.	294.04	819.45
#3	1952.9	21807.	298.47	807.85

Sample Name: CCB Acquired: 9/13/2011 21:33:11 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0003**	**.0391**	**.0043**	**.0038**	**.0007**	**.00080**
Stddev	.0003	.2235	.0013	.0005	.0005	.00128
%RSD	122.2	572.1	29.65	13.29	73.57	158.65
#1	.0004	.1673	.0029	.0035	.0010	-.00065
#2	.0005	-.2190	.0054	.0043	.0001	.00130
#3	-.0001	.1689	.0047	.0035	.0011	.00176
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0945**	**.0001**	**-.0001**	**-.0001**	**.0007**	**-.0134**
Stddev	.0459	.0001	.0001	.0001	.0004	.0320
%RSD	48.57	106.9	101.2	113.0	61.72	238.0
#1	.0868	.0000	-.0001	-.0002	.0007	.0130
#2	.1438	.0001	.0000	-.0002	.0010	-.0043
#3	.0530	.0001	-.0002	.0000	.0002	-.0490
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 21:33:11 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.1816**	**.0004**	**.0017**	**.0002**	**-.2642**	**.0004**
Stddev	.1239	.0021	.0002	.0004	.0231	.0000
%RSD	68.21	499.9	11.84	150.2	8.738	10.39
#1	.3187	.0028	.0015	-.0002	-.2394	.0004
#2	.0775	-.0005	.0018	.0005	-.2681	.0004
#3	.1488	-.0011	.0018	.0004	-.2851	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0001**	**.0015**	**.0008**	**.0017**	**.0002**	**.0006**
Stddev	.0016	.0018	.0018	.0020	.0002	.0004
%RSD	1984.	123.0	218.0	119.3	80.53	70.03
#1	.0011	.0000	.0000	.0019	.0003	.0002
#2	.0010	.0009	-.0004	.0035	.0003	.0010
#3	-.0018	.0035	.0029	-.0004	.0000	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 21:33:11 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2310.3	21763.	273.30	757.12
Stddev	5.8	60.	3.40	1.70
%RSD	.25281	.27416	1.2428	.22416
#1	2316.1	21736.	274.98	759.08
#2	2304.4	21722.	275.52	756.19
#3	2310.4	21831.	269.39	756.10

Sample Name: 580-28356-A-19-A Acquired: 9/13/2011 21:42:37 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0315**	**146.9**	**91.88**	**.2335**	**.8380**	**.00377**
Stddev	.0003	1.1	.37	.0017	.0068	.00040
%RSD	.9650	.7478	.3977	.7448	.8091	10.710
#1	.0312	146.1	91.54	.2323	.8304	.00399
#2	.0318	146.4	91.84	.2328	.8400	.00402
#3	.0314	148.1	92.26	.2355	.8435	.00330

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**12.80**	**.0007**	**.3434**	**.0997**	**2.602**	**936.5**
Stddev	.14	.0002	.0010	.0003	.003	6.2
%RSD	1.110	31.43	.2841	.2818	.1266	.6642
#1	12.64	.0008	.3428	.0997	2.599	929.7
#2	12.85	.0010	.3429	.0994	2.606	937.9
#3	12.91	.0005	.3445	.1000	2.601	942.0

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**36.89**	**27.84**	**58.11**	**.0402**	**-.7933**	**.0433**
Stddev	.23	.02	.09	.0007	.0304	.0009
%RSD	.6337	.0875	.1549	1.686	3.837	2.188
#1	36.62	27.86	58.22	.0408	-.8267	.0435
#2	37.04	27.86	58.06	.0394	-.7671	.0422
#3	37.02	27.82	58.07	.0403	-.7860	.0441

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**3.034**	**.8688**	**.1101**	**.0061**	**1.027**	**3.628**
Stddev	.005	.0047	.0017	.0036	.001	.012
%RSD	.1784	.5438	1.499	58.54	.1158	.3267
#1	3.038	.8676	.1121	.0103	1.029	3.618
#2	3.028	.8649	.1092	.0043	1.027	3.624
#3	3.036	.8741	.1092	.0038	1.026	3.641

Sample Name: 580-28356-A-19-A Acquired: 9/13/2011 21:42:37 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2048.3	21998.	296.13	816.78
Stddev	1.3	14.	2.30	2.36
%RSD	.06226	.06440	.77804	.28901
#1	2048.9	22014.	293.53	816.52
#2	2049.2	21988.	296.92	814.57
#3	2046.8	21992.	297.92	819.27

Sample Name: 580-28356-A-20-A Acquired: 9/13/2011 21:49:21 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0460**	**195.6**	**138.6**	**.2432**	**.9027**	**.00489**
Stddev	.0006	2.0	.2	.0011	.0073	.00123
%RSD	1.335	1.007	.1198	.4319	.8065	25.207
#1	.0463	193.4	138.7	.2442	.9097	.00515
#2	.0464	197.2	138.5	.2421	.8952	.00355
#3	.0453	196.2	138.4	.2434	.9032	.00597

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**12.88**	**.0030**	**.4300**	**.1049**	**3.251**	**968.0**
Stddev	.28	.0010	.0019	.0008	.013	5.2
%RSD	2.212	34.79	.4388	.7768	.4045	.5419
#1	13.18	.0042	.4321	.1057	3.263	965.4
#2	12.84	.0025	.4295	.1047	3.253	974.1
#3	12.62	.0023	.4284	.1041	3.237	964.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**35.11**	**34.19**	**70.44**	**.0421**	**-.7708**	**.0576**
Stddev	.08	.15	.24	.0003	.0269	.0013
%RSD	.2239	.4467	.3419	.7039	3.483	2.247
#1	35.20	34.35	70.63	.0424	-.8014	.0590
#2	35.09	34.19	70.52	.0418	-.7512	.0572
#3	35.04	34.04	70.17	.0420	-.7599	.0565

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**3.457**	**.9277**	**.1361**	**.0057**	**1.135**	**4.036**
Stddev	.017	.0046	.0022	.0075	.005	.009
%RSD	.4972	.4927	1.583	130.6	.4230	.2295
#1	3.473	.9328	.1366	.0125	1.140	4.046
#2	3.460	.9264	.1338	-.0023	1.135	4.030
#3	3.439	.9240	.1380	.0071	1.131	4.030

Sample Name: 580-28356-A-20-A Acquired: 9/13/2011 21:49:21 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2047.1	22936.	309.24	841.81
Stddev	4.6	73.	1.33	9.37
%RSD	.22420	.31941	.42999	1.1129
#1	2050.7	22861.	308.54	831.97
#2	2041.9	22940.	310.77	850.62
#3	2048.6	23007.	308.40	842.86

Sample Name: 580-28356-A-21-A Acquired: 9/13/2011 21:56:04 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0087**	**343.6**	**2.102**	**.0660**	**.9509**	**.00542**
Stddev	.0003	1.9	.006	.0004	.0096	.00115
%RSD	3.242	.5528	.2800	.5312	1.009	21.220
#1	-.0087	345.4	2.104	.0664	.9506	.00588
#2	-.0089	341.6	2.107	.0660	.9414	.00627
#3	-.0084	343.8	2.096	.0657	.9606	.00411

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**30.93**	**-.0193**	**.2645**	**1.127**	**1.755**	**713.7**
Stddev	.28	.0004	.0002	.001	.006	3.3
%RSD	.9107	2.230	.0885	.1143	.3534	.4633
#1	30.85	-.0198	.2644	1.128	1.760	717.0
#2	30.70	-.0193	.2648	1.126	1.756	710.4
#3	31.24	-.0190	.2644	1.126	1.748	713.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**24.14**	**331.2**	**7.659**	**.0315**	**4.203**	**2.226**
Stddev	.17	2.3	.030	.0004	.027	.006
%RSD	.7247	.6921	.3945	1.143	.6337	.2938
#1	24.33	330.8	7.674	.0316	4.231	2.229
#2	24.11	329.2	7.624	.0311	4.178	2.230
#3	23.99	333.7	7.678	.0317	4.199	2.218

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2570**	**-.0518**	**.0421**	**.0019**	**1.133**	**1.025**
Stddev	.0048	.0035	.0050	.0004	.003	.003
%RSD	1.857	6.785	11.87	23.36	.2207	.2797
#1	.2558	-.0497	.0368	.0023	1.135	1.027
#2	.2529	-.0559	.0467	.0015	1.134	1.027
#3	.2622	-.0500	.0429	.0019	1.130	1.022

Sample Name: 580-28356-A-21-A Acquired: 9/13/2011 21:56:04 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1925.7	20871.	289.87	755.69
Stddev	3.2	17.	4.79	4.77
%RSD	.16473	.08281	1.6513	.63155
#1	1924.7	20851.	288.98	756.55
#2	1923.1	20879.	285.58	759.98
#3	1929.2	20883.	295.03	750.55

Sample Name: 580-28356-A-22-A Acquired: 9/13/2011 22:03:08 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0005**	**565.5**	**.1358**	**.0196**	**.3236**	**.00378**
Stddev	.0001	.5	.0043	.0007	.0011	.00107
%RSD	10.32	.0831	3.141	3.415	.3528	28.285
#1	.0006	565.7	.1316	.0201	.3244	.00276
#2	.0005	564.9	.1355	.0188	.3240	.00368
#3	.0005	565.8	.1401	.0199	.3223	.00489

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**4.403**	**-.0144**	**.0497**	**.5442**	**.5742**	**461.3**
Stddev	.064	.0002	.0001	.0013	.0013	1.5
%RSD	1.460	1.289	.2598	.2394	.2288	.3226
#1	4.418	-.0143	.0497	.5443	.5742	459.9
#2	4.459	-.0146	.0497	.5429	.5729	462.9
#3	4.333	-.0142	.0499	.5455	.5755	461.0

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**3.569**	**17.61**	**1.006**	**.0139**	**.9478**	**.2722**
Stddev	.158	.02	.002	.0004	.0297	.0003
%RSD	4.436	.0892	.1635	3.214	3.133	.1143
#1	3.624	17.62	1.006	.0140	.9512	.2724
#2	3.693	17.60	1.004	.0134	.9165	.2718
#3	3.391	17.63	1.007	.0142	.9756	.2723

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1621**	**-.0339**	**.0337**	**-.0011**	**.9992**	**.2976**
Stddev	.0014	.0031	.0027	.0008	.0014	.0007
%RSD	.8366	9.041	7.900	72.76	.1396	.2324
#1	.1613	-.0304	.0356	-.0002	.9998	.2984
#2	.1614	-.0358	.0347	-.0017	.9976	.2971
#3	.1637	-.0356	.0306	-.0014	1.000	.2972

Sample Name: 580-28356-A-22-A Acquired: 9/13/2011 22:03:08 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2008.6	21936.	294.48	751.68
Stddev	1.0	33.	1.90	1.88
%RSD	.04883	.15067	.64584	.24996
#1	2009.7	21973.	292.73	749.79
#2	2008.3	21910.	296.50	751.71
#3	2007.9	21924.	294.21	753.54

Sample Name: 580-28356-A-23-A Acquired: 9/13/2011 22:09:55 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0012**	**35.37**	**.0475**	**.0261**	**.0579**	**.00024**
Stddev	.0003	.08	.0008	.0006	.0005	.00109
%RSD	25.76	.2351	1.650	2.119	.8997	457.62
#1	.0015	35.29	.0472	.0255	.0584	.00013
#2	.0012	35.36	.0484	.0261	.0574	.00137
#3	.0009	35.46	.0470	.0266	.0579	-.00079

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**6.425**	**-.0037**	**.0239**	**.0745**	**.0454**	**126.1**
Stddev	.123	.0002	.0003	.0006	.0002	.5
%RSD	1.914	4.102	1.167	.7985	.3659	.3721
#1	6.354	-.0038	.0242	.0749	.0454	126.0
#2	6.567	-.0038	.0237	.0738	.0456	125.6
#3	6.353	-.0035	.0239	.0747	.0453	126.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**2.370**	**3.592**	**.5838**	**.0019**	**1.750**	**.0273**
Stddev	.101	.013	.0012	.0001	.057	.0005
%RSD	4.250	.3643	.2084	5.831	3.281	1.782
#1	2.467	3.607	.5844	.0018	1.787	.0269
#2	2.376	3.583	.5824	.0020	1.778	.0278
#3	2.266	3.586	.5846	.0020	1.684	.0272

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0841**	**-.0051**	**.0038**	**-.0006**	**.5326**	**.1627**
Stddev	.0035	.0004	.0026	.0013	.0001	.0008
%RSD	4.140	7.796	69.96	203.9	.0245	.4656
#1	.0846	-.0049	.0068	.0006	.5327	.1635
#2	.0873	-.0055	.0022	-.0005	.5325	.1620
#3	.0804	-.0048	.0022	-.0020	.5327	.1627

Sample Name: 580-28356-A-23-A Acquired: 9/13/2011 22:09:55 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2176.0**	**22506.**	**299.33**	**734.78**
Stddev	5.4	54.	2.75	15.75
%RSD	.24922	.24025	.91719	2.1441
#1	2169.8	22540.	296.90	731.48
#2	2178.3	22534.	298.78	720.94
#3	2180.0	22444.	302.30	751.93

Sample Name: CCV Acquired: 9/13/2011 22:16:50 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.006**	**10.06**	**4.737**	**2.438**	**2.471**	**.09353**
Stddev	.003	.20	.009	.002	.009	.00102
%RSD	.2536	2.002	.1964	.0899	.3689	1.0908
#1	1.004	9.836	4.737	2.441	2.479	.09375
#2	1.005	10.13	4.728	2.437	2.472	.09242
#3	1.009	10.22	4.747	2.437	2.461	.09443
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.03**	**.4649**	**.4780**	**.4872**	**.4718**	**9.450**
Stddev	.24	.0021	.0015	.0019	.0025	.079
%RSD	1.261	.4413	.3104	.3988	.5342	.8344
#1	19.26	.4657	.4792	.4866	.4710	9.504
#2	19.06	.4626	.4764	.4856	.4697	9.485
#3	18.78	.4664	.4785	.4893	.4746	9.359
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 22:16:50 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.22**	**18.63**	**.4725**	**.4719**	**14.83**	**.4710**
Stddev	.12	.09	.0024	.0019	.12	.0015
%RSD	.6210	.4752	.5135	.4061	.7790	.3089
#1	19.33	18.61	.4715	.4739	14.96	.4726
#2	19.23	18.56	.4707	.4701	14.79	.4700
#3	19.10	18.73	.4753	.4716	14.74	.4703
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.573**	**2.341**	**4.661**	**2.349**	**.4694**	**.4706**
Stddev	.016	.012	.018	.003	.0030	.0013
%RSD	.3528	.5034	.3890	.1460	.6329	.2732
#1	4.583	2.352	4.678	2.352	.4682	.4719
#2	4.554	2.329	4.642	2.345	.4673	.4693
#3	4.580	2.341	4.664	2.350	.4728	.4706
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 22:16:50 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2104.9**	**22007.**	**291.09**	**720.54**
Stddev	4.8	44.	1.31	6.05
%RSD	.22570	.20142	.45053	.83945
#1	2099.6	21997.	289.75	713.61
#2	2108.8	22056.	291.15	724.78
#3	2106.3	21969.	292.37	723.23

Sample Name: CCB Acquired: 9/13/2011 22:25:49 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0001**	**-.0765**	**.0050**	**.0028**	**.0018**	**.00018**
Stddev	.0001	.1608	.0021	.0005	.0011	.00129
%RSD	136.6	210.3	41.46	17.66	59.52	722.96
#1	-.0002	-.1084	.0071	.0033	.0015	-.00098
#2	-.0001	-.2190	.0050	.0028	.0009	.00157
#3	.0000	.0979	.0030	.0023	.0031	-.00005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0086**	**-.0001**	**.0001**	**.0000**	**.0014**	**.0438**
Stddev	.1160	.0000	.0001	.000	.0005	.0288
%RSD	1351.	4.650	132.2	5960.	32.73	65.82
#1	.0618	-.0001	.0000	.0001	.0009	.0183
#2	.0884	-.0001	.0001	.0002	.0019	.0380
#3	-.1245	-.0001	.0002	-.0002	.0015	.0751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 22:25:49 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.3852**	**.0019**	**.0002**	**.0001**	**-.2260**	**.0006**
Stddev	.0229	.0019	.0000	.0002	.0358	.0001
%RSD	5.943	100.9	6.501	169.4	15.85	8.645
#1	.4091	.0001	.0002	.0000	-.2497	.0006
#2	.3635	.0016	.0002	.0003	-.2435	.0007
#3	.3831	.0039	.0001	.0000	-.1848	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0015**	**.0010**	**.0001**	**.0029**	**.0001**	**.0004**
Stddev	.0010	.0020	.0027	.0028	.0001	.0001
%RSD	65.10	210.7	2103.	94.24	168.0	24.39
#1	.0013	.0008	-.0015	.0024	.0002	.0003
#2	.0007	.0030	-.0013	.0059	.0000	.0003
#3	.0026	-.0010	.0032	.0004	.0000	.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/13/2011 22:25:49 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2289.5	22531.	286.01	707.28
Stddev	6.4	66.	9.48	18.82
%RSD	.27760	.29091	3.3147	2.6604
#1	2282.4	22519.	275.53	685.57
#2	2291.3	22601.	288.50	718.81
#3	2294.8	22471.	293.99	717.46

Sample Name: MB 580-95094/20-A Acquired: 9/13/2011 22:32:46 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0001**	**-.0809**	**.0043**	**.0015**	**.0022**	**.00006**
Stddev	.0002	.1507	.0009	.0002	.0010	.00062
%RSD	171.1	186.3	21.56	11.79	45.81	1015.4
#1	-.0004	-.2536	.0039	.0016	.0030	.00077
#2	.0000	.0236	.0036	.0016	.0011	-.00021
#3	.0000	-.0127	.0054	.0013	.0024	-.00038

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0518**	**.0001**	**.0000**	**-.0003**	**.0037**	**.0123**
Stddev	.0919	.0001	.0001	.0001	.0006	.0391
%RSD	177.5	118.9	912.6	24.02	16.57	318.1
#1	.0910	.0001	-.0001	-.0004	.0042	.0496
#2	-.0532	.0001	.0002	-.0003	.0030	.0156
#3	.1176	.0000	-.0001	-.0002	.0039	-.0284

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2714**	**.0012**	**.0010**	**-.0001**	**-.2068**	**.0013**
Stddev	.2153	.0017	.0000	.0001	.0264	.0002
%RSD	79.32	141.9	1.812	128.0	12.76	11.99
#1	.2176	.0027	.0010	.0000	-.2324	.0015
#2	.5085	-.0007	.0010	.0000	-.2083	.0013
#3	.0882	.0016	.0010	-.0001	-.1797	.0012

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0013**	**.0038**	**-.0001**	**.0023**	**.0000**	**.0057**
Stddev	.0010	.0007	.0010	.0007	.0000	.0001
%RSD	72.79	18.36	865.7	30.40	16.59	1.620
#1	.0012	.0047	-.0012	.0017	.0000	.0058
#2	.0023	.0035	.0007	.0022	.0000	.0056
#3	.0004	.0034	.0001	.0031	.0000	.0057

Sample Name: MB 580-95094/20-A Acquired: 9/13/2011 22:32:46 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2281.3	22135.	287.01	726.22
Stddev	7.0	20.	3.01	11.56
%RSD	.30690	.09000	1.0488	1.5918
#1	2275.2	22113.	284.93	718.34
#2	2279.8	22152.	290.46	739.49
#3	2289.0	22141.	285.64	720.83

Sample Name: LCS 580-95094/21-A Acquired: 9/13/2011 22:39:44 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5968**	**3.953**	**3.863**	**5.019**	**4.092**	**.10235**
Stddev	.0015	.326	.010	.009	.231	.00397
%RSD	.2436	8.249	.2594	.1901	5.645	3.8741
#1	.5951	4.163	3.854	5.009	4.357	.10693
#2	.5973	4.119	3.874	5.019	3.981	.10000
#3	.5979	3.577	3.861	5.028	3.938	.10012

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**20.24**	**.0954**	**.9791**	**.3993**	**.4852**	**21.61**
Stddev	1.30	.0002	.0017	.0016	.0015	.20
%RSD	6.402	.1993	.1759	.4132	.3161	.9414
#1	21.72	.0952	.9775	.3974	.4849	21.38
#2	19.67	.0955	.9788	.3997	.4839	21.75
#3	19.32	.0954	.9809	.4007	.4869	21.71

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**20.19**	**18.97**	**.9868**	**4.859**	**20.22**	**.9625**
Stddev	1.26	.03	.0016	.006	1.13	.0017
%RSD	6.223	.1515	.1606	.1197	5.602	.1790
#1	21.63	18.94	.9852	4.853	21.53	.9645
#2	19.35	18.97	.9868	4.860	19.65	.9613
#3	19.58	18.99	.9883	4.865	19.49	.9617

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9364**	**2.862**	**3.739**	**3.771**	**.9778**	**.9504**
Stddev	.0033	.006	.008	.006	.0021	.0016
%RSD	.3561	.1985	.2103	.1684	.2139	.1634
#1	.9372	2.858	3.730	3.773	.9754	.9489
#2	.9327	2.858	3.741	3.764	.9788	.9503
#3	.9393	2.868	3.746	3.777	.9792	.9520

Sample Name: LCS 580-95094/21-A Acquired: 9/13/2011 22:39:44 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2078.4	21497.	275.68	706.94
Stddev	3.0	10.	14.22	37.48
%RSD	.14408	.04425	5.1580	5.3011
#1	2075.0	21505.	259.26	663.87
#2	2079.6	21499.	284.05	724.86
#3	2080.7	21486.	283.72	732.10

Sample Name: LCSD 580-95094/22-A Acquired: 9/13/2011 22:46:14 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6017**	**3.882**	**3.866**	**5.003**	**4.019**	**.10207**
Stddev	.0011	.135	.003	.019	.085	.00326
%RSD	.1748	3.477	.0638	.3749	2.104	3.1937
#1	.6028	4.024	3.869	5.024	3.965	.10071
#2	.6007	3.755	3.865	4.987	4.117	.10579
#3	.6016	3.869	3.865	4.999	3.976	.09970

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.86**	**.0957**	**.9826**	**.4054**	**.4900**	**21.90**
Stddev	.46	.0001	.0011	.0008	.0006	.30
%RSD	2.329	.0526	.1112	.1927	.1293	1.390
#1	19.45	.0957	.9822	.4045	.4897	21.56
#2	20.36	.0958	.9817	.4059	.4897	22.16
#3	19.76	.0958	.9838	.4058	.4908	21.96

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.60**	**19.18**	**1.000**	**4.866**	**19.83**	**.9619**
Stddev	.27	.02	.002	.006	.39	.0013
%RSD	1.364	.0964	.1562	.1159	1.966	.1321
#1	19.51	19.16	.9985	4.863	19.54	.9632
#2	19.90	19.18	1.001	4.862	20.27	.9620
#3	19.39	19.19	1.001	4.872	19.67	.9606

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9352**	**2.866**	**3.730**	**3.790**	**.9894**	**.9552**
Stddev	.0016	.009	.004	.009	.0022	.0001
%RSD	.1706	.3239	.1185	.2233	.2222	.0093
#1	.9359	2.859	3.733	3.782	.9876	.9553
#2	.9364	2.863	3.725	3.788	.9888	.9551
#3	.9334	2.877	3.733	3.799	.9918	.9552

Sample Name: LCSD 580-95094/22-A Acquired: 9/13/2011 22:46:14 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2079.6	21387.	282.44	725.17
Stddev	6.1	90.	4.93	8.41
%RSD	.29523	.41971	1.7444	1.1601
#1	2086.6	21490.	286.24	728.62
#2	2075.2	21344.	276.88	715.58
#3	2077.0	21328.	284.22	731.31

Sample Name: 580-28333-A-1-K SD Acquired: 9/13/2011 22:52:44 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0011**	**33.93**	**.7618**	**.0113**	**1.988**	**.00216**
Stddev	.0005	.43	.0022	.0004	.027	.00166
%RSD	48.55	1.281	.2845	3.378	1.377	76.885
#1	-.0017	33.75	.7642	.0118	1.982	.00352
#2	-.0007	34.43	.7600	.0111	2.018	.00031
#3	-.0009	33.62	.7613	.0112	1.964	.00264

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**25.52**	**-.0035**	**.0491**	**.0035**	**.2509**	**114.7**
Stddev	.54	.0001	.0003	.0001	.0026	1.0
%RSD	2.110	3.211	.6612	2.193	1.051	.8372
#1	25.64	-.0036	.0490	.0036	.2536	115.1
#2	25.99	-.0036	.0495	.0034	.2508	115.4
#3	24.93	-.0034	.0488	.0035	.2483	113.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**11.97**	**5.998**	**1.402**	**.0080**	**1.264**	**.0139**
Stddev	.14	.045	.012	.0003	.078	.0002
%RSD	1.153	.7561	.8381	3.144	6.200	1.301
#1	11.89	6.041	1.414	.0083	1.175	.0137
#2	12.13	6.003	1.403	.0078	1.322	.0140
#3	11.89	5.950	1.390	.0079	1.295	.0139

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0364**	**.0046**	**.0065**	**.0080**	**.2154**	**.1557**
Stddev	.0014	.0006	.0015	.0011	.0019	.0006
%RSD	3.888	13.57	23.52	13.61	.8881	.3912
#1	.0371	.0039	.0082	.0077	.2174	.1562
#2	.0348	.0051	.0059	.0092	.2150	.1559
#3	.0374	.0047	.0053	.0071	.2137	.1550

Sample Name: 580-28333-A-1-K SD Acquired: 9/13/2011 22:52:44 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2150.9**	**21905.**	**281.38**	**745.42**
Stddev	1.0	44.	1.18	5.73
%RSD	.04710	.19914	.42040	.76922
#1	2150.3	21859.	282.74	750.20
#2	2152.1	21946.	280.84	739.06
#3	2150.4	21909.	280.57	746.99

Sample Name: 580-28333-A-1-K Acquired: 9/13/2011 22:59:32 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0069**	**167.8**	**3.895**	**.0165**	**9.667**	**.00799**
Stddev	.0002	1.1	.014	.0004	.199	.00007
%RSD	2.458	.6666	.3622	2.554	2.055	.82344
#1	-.0067	167.2	3.910	.0165	9.662	.00795
#2	-.0070	169.1	3.883	.0160	9.471	.00795
#3	-.0069	167.2	3.893	.0168	9.868	.00806

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**123.4**	**-.0171**	**.2411**	**.0177**	**1.270**	**548.6**
Stddev	2.8	.0004	.0009	.0002	.005	1.7
%RSD	2.288	2.166	.3867	1.099	.3864	.3029
#1	123.5	-.0172	.2419	.0176	1.273	549.8
#2	120.5	-.0175	.2413	.0180	1.264	549.3
#3	126.1	-.0167	.2401	.0177	1.272	546.7

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**58.78**	**28.79**	**6.660**	**.0285**	**7.278**	**.0690**
Stddev	1.31	.08	.086	.0002	.189	.0007
%RSD	2.234	.2883	1.292	.7282	2.596	1.048
#1	58.96	28.83	6.738	.0286	7.251	.0695
#2	57.38	28.70	6.568	.0286	7.104	.0682
#3	59.99	28.85	6.674	.0282	7.479	.0693

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1767**	**.0183**	**.0291**	**.0246**	**1.076**	**.7909**
Stddev	.0042	.0021	.0011	.0015	.004	.0030
%RSD	2.362	11.76	3.777	5.928	.3760	.3795
#1	.1763	.0160	.0280	.0256	1.079	.7935
#2	.1810	.0203	.0291	.0252	1.071	.7917
#3	.1727	.0185	.0302	.0229	1.077	.7876

Sample Name: 580-28333-A-1-K Acquired: 9/13/2011 22:59:32 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1969.4	21174.	289.25	754.26
Stddev	5.7	58.	3.63	17.64
%RSD	.29139	.27211	1.2558	2.3381
#1	1962.7	21129.	288.44	754.42
#2	1972.8	21238.	293.22	771.81
#3	1972.5	21154.	286.09	736.54

Sample Name: 580-28333-A-1-L DU Acquired: 9/13/2011 23:06:19 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0071**	**201.7**	**3.724**	**.0200**	**10.84**	**.00768**
Stddev	.0005	1.0	.007	.0013	.07	.00048
%RSD	7.578	.5015	.1838	6.634	.6008	6.3039
#1	-.0075	202.7	3.730	.0200	10.91	.00761
#2	-.0073	201.5	3.724	.0213	10.78	.00724
#3	-.0065	200.7	3.717	.0187	10.84	.00820

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**115.2**	**-.0169**	**.2306**	**.0175**	**1.257**	**550.2**
Stddev	.6	.0001	.0007	.0002	.007	2.1
%RSD	.5212	.5202	.3033	.8989	.5227	.3773
#1	115.8	-.0168	.2305	.0176	1.251	547.8
#2	114.6	-.0169	.2313	.0176	1.264	551.2
#3	115.2	-.0170	.2299	.0173	1.257	551.5

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**62.09**	**30.35**	**6.253**	**.0163**	**8.111**	**.0706**
Stddev	.40	.15	.063	.0002	.085	.0002
%RSD	.6497	.5073	1.004	1.244	1.046	.2974
#1	62.52	30.17	6.184	.0165	8.112	.0706
#2	61.72	30.46	6.307	.0161	8.026	.0708
#3	62.02	30.41	6.268	.0163	8.195	.0704

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1841**	**.0201**	**.0347**	**.0228**	**1.077**	**.8042**
Stddev	.0015	.0025	.0039	.0027	.004	.0018
%RSD	.8026	12.67	11.23	11.94	.3821	.2269
#1	.1824	.0227	.0308	.0197	1.072	.8057
#2	.1854	.0176	.0347	.0248	1.080	.8046
#3	.1844	.0200	.0386	.0240	1.079	.8021

Sample Name: 580-28333-A-1-L DU Acquired: 9/13/2011 23:06:19 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1964.9**	**21085.**	**286.88**	**751.43**
Stddev	8.0	122.	4.32	4.00
%RSD	.40698	.57846	1.5053	.53240
#1	1973.7	21225.	282.08	747.62
#2	1958.1	21001.	290.46	755.59
#3	1963.0	21029.	288.09	751.08

Sample Name: 580-28333-A-1-M MS Acquired: 9/13/2011 23:13:07 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5815**	**290.6**	**8.716**	**3.986**	**15.14**	**.10667**
Stddev	.0017	.4	.007	.004	.04	.00357
%RSD	.2876	.1509	.0800	.1012	.2727	3.3467
#1	.5829	290.2	8.710	3.982	15.10	.10814
#2	.5796	290.6	8.723	3.990	15.17	.10928
#3	.5818	291.1	8.713	3.985	15.17	.10261

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**134.1**	**.0733**	**1.143**	**.4013**	**1.824**	**607.5**
Stddev	.7	.0003	.002	.0012	.002	1.5
%RSD	.5406	.4552	.1380	.2931	.1110	.2539
#1	133.3	.0737	1.141	.4025	1.824	605.7
#2	134.8	.0733	1.143	.4001	1.821	608.3
#3	134.1	.0730	1.144	.4012	1.825	608.4

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**93.47**	**53.33**	**7.667**	**4.479**	**29.49**	**1.037**
Stddev	.57	.11	.021	.004	.09	.002
%RSD	.6080	.2071	.2677	.0959	.3091	.1983
#1	92.89	53.33	7.652	4.475	29.42	1.035
#2	94.03	53.22	7.659	4.479	29.46	1.039
#3	93.49	53.44	7.690	4.483	29.59	1.038

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.121**	**1.135**	**3.769**	**3.662**	**2.239**	**1.817**
Stddev	.003	.004	.006	.010	.006	.001
%RSD	.2277	.3529	.1652	.2847	.2621	.0480
#1	1.124	1.131	3.762	3.656	2.242	1.816
#2	1.120	1.134	3.772	3.674	2.232	1.818
#3	1.119	1.139	3.774	3.656	2.242	1.817

Sample Name: 580-28333-A-1-M MS Acquired: 9/13/2011 23:13:07 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1883.7	20748.	284.33	743.81
Stddev	2.2	28.	.90	.52
%RSD	.11888	.13518	.31537	.06969
#1	1886.2	20739.	285.26	743.94
#2	1881.9	20780.	284.25	743.24
#3	1883.0	20726.	283.47	744.26

Sample Name: 580-28333-A-1-N MSD Acquired: 9/13/2011 23:19:44 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5845**	**322.9**	**8.515**	**4.024**	**15.19**	**.10525**
Stddev	.0016	1.6	.003	.014	.32	.00293
%RSD	.2766	.4813	.0391	.3533	2.139	2.7883
#1	.5828	321.3	8.512	4.008	15.38	.10808
#2	.5848	323.1	8.519	4.032	14.82	.10222
#3	.5860	324.3	8.515	4.033	15.38	.10546

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**136.1**	**.0698**	**1.131**	**.4065**	**1.810**	**657.1**
Stddev	3.0	.0009	.001	.0010	.005	2.5
%RSD	2.198	1.325	.0612	.2574	.2958	.3867
#1	137.9	.0707	1.131	.4076	1.815	657.1
#2	132.7	.0698	1.132	.4055	1.805	654.6
#3	137.8	.0688	1.130	.4065	1.810	659.7

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**115.1**	**51.23**	**7.200**	**4.443**	**29.18**	**1.030**
Stddev	2.4	.09	.040	.001	.68	.001
%RSD	2.091	.1735	.5605	.0143	2.333	.1036
#1	116.5	51.30	7.245	4.443	29.61	1.029
#2	112.3	51.13	7.166	4.442	28.40	1.030
#3	116.5	51.26	7.190	4.443	29.54	1.031

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.232**	**1.161**	**3.766**	**3.642**	**2.277**	**1.719**
Stddev	.001	.009	.006	.004	.005	.003
%RSD	.1025	.7404	.1522	.1169	.2098	.1688
#1	1.231	1.171	3.771	3.646	2.282	1.721
#2	1.233	1.157	3.760	3.644	2.272	1.721
#3	1.234	1.156	3.768	3.638	2.278	1.716

Sample Name: 580-28333-A-1-N MSD Acquired: 9/13/2011 23:19:44 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1888.3	20937.	287.48	765.44
Stddev	5.8	87.	5.63	15.24
%RSD	.30597	.41415	1.9568	1.9914
#1	1881.7	20836.	282.31	753.09
#2	1890.9	20984.	293.47	782.47
#3	1892.4	20989.	286.67	760.75

Sample Name: 580-28333-A-1-K PDS Acquired: 9/13/2011 23:26:21 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6046**	**160.8**	**7.534**	**4.933**	**12.72**	**.10285**
Stddev	.0011	1.2	.006	.011	.06	.00146
%RSD	.1852	.7173	.0840	.2152	.4392	1.4178
#1	.6038	160.9	7.540	4.945	12.68	.10218
#2	.6059	161.8	7.527	4.924	12.69	.10185
#3	.6040	159.5	7.534	4.930	12.78	.10452

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**131.0**	**.0778**	**1.159**	**.4056**	**1.658**	**526.7**
Stddev	.9	.0002	.002	.0019	.007	1.5
%RSD	.7117	.3069	.1416	.4756	.4302	.2933
#1	129.9	.0779	1.158	.4034	1.652	525.8
#2	131.6	.0775	1.161	.4069	1.666	528.5
#3	131.5	.0780	1.158	.4064	1.656	525.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**72.78**	**44.76**	**6.991**	**4.744**	**26.45**	**1.045**
Stddev	.53	.21	.064	.007	.08	.002
%RSD	.7246	.4666	.9079	.1419	.2918	.1990
#1	72.35	44.54	6.938	4.739	26.44	1.046
#2	72.63	44.95	7.062	4.752	26.39	1.042
#3	73.37	44.80	6.974	4.741	26.54	1.046

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**1.118**	**2.916**	**3.884**	**3.770**	**1.955**	**1.680**
Stddev	.003	.003	.013	.004	.009	.002
%RSD	.2620	.1059	.3285	.0961	.4478	.1240
#1	1.116	2.914	3.875	3.774	1.947	1.682
#2	1.117	2.920	3.898	3.768	1.964	1.678
#3	1.122	2.916	3.879	3.767	1.953	1.679

Sample Name: 580-28333-A-1-K PDS Acquired: 9/13/2011 23:26:21 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1947.3	21383.	296.95	765.16
Stddev	4.1	70.	3.93	7.24
%RSD	.21132	.32686	1.3249	.94576
#1	1951.8	21458.	301.11	770.42
#2	1943.7	21321.	296.46	768.16
#3	1946.4	21369.	293.29	756.91

Sample Name: CCV Acquired: 9/13/2011 23:32:58 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.007**	**10.09**	**4.802**	**2.454**	**2.419**	**.10141**
Stddev	.002	.15	.021	.008	.096	.00263
%RSD	.2245	1.531	.4486	.3292	3.957	2.5930
#1	1.009	9.924	4.824	2.463	2.373	.10047
#2	1.005	10.23	4.800	2.451	2.356	.09939
#3	1.006	10.11	4.781	2.447	2.529	.10439
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.37**	**.4929**	**.4921**	**.4916**	**.4761**	**9.765**
Stddev	.70	.0021	.0019	.0003	.0005	.037
%RSD	3.608	.4307	.3800	.0610	.1131	.3810
#1	19.09	.4953	.4942	.4913	.4767	9.722
#2	18.85	.4918	.4911	.4919	.4756	9.790
#3	20.17	.4915	.4908	.4916	.4761	9.782
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 23:32:58 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.31**	**19.35**	**.4817**	**.4839**	**14.54**	**.4669**
Stddev	.70	.05	.0011	.0017	.56	.0020
%RSD	3.649	.2816	.2223	.3526	3.843	.4220
#1	18.90	19.41	.4829	.4858	14.30	.4691
#2	18.90	19.31	.4808	.4828	14.14	.4663
#3	20.12	19.33	.4814	.4829	15.17	.4653
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.679**	**2.383**	**4.799**	**2.396**	**.4854**	**.4780**
Stddev	.026	.007	.023	.013	.0020	.0018
%RSD	.5470	.2901	.4815	.5340	.4176	.3736
#1	4.707	2.390	4.826	2.411	.4875	.4800
#2	4.672	2.382	4.791	2.393	.4835	.4772
#3	4.657	2.377	4.782	2.386	.4852	.4767
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/13/2011 23:32:58 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2121.0	21383.	276.89	735.51
Stddev	4.9	25.	8.84	24.28
%RSD	.23276	.11786	3.1943	3.3014
#1	2115.5	21359.	281.52	738.62
#2	2122.6	21409.	282.45	758.09
#3	2125.0	21381.	266.69	709.83

Sample Name: 580-28333-A-2-E Acquired: 9/13/2011 23:48:54 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0017**	**593.3**	**.1420**	**.0271**	**4.428**	**.01188**
Stddev	.0005	3.0	.0023	.0003	.226	.00046
%RSD	31.20	.5084	1.644	1.256	5.093	3.8722
#1	-.0013	589.8	.1447	.0267	4.168	.01159
#2	-.0023	595.3	.1403	.0274	4.548	.01241
#3	-.0015	594.7	.1411	.0272	4.569	.01164

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**117.5**	**-.0192**	**.3102**	**.0438**	**1.500**	**572.2**
Stddev	5.6	.0001	.0007	.0001	.003	3.5
%RSD	4.741	.4570	.2360	.2764	.1833	.6124
#1	111.1	-.0191	.3109	.0437	1.497	569.0
#2	120.3	-.0192	.3094	.0438	1.500	571.6
#3	121.1	-.0193	.3104	.0439	1.503	575.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**40.11**	**59.61**	**19.69**	**.0076**	**8.270**	**.0674**
Stddev	1.97	.10	.14	.0006	.473	.0007
%RSD	4.923	.1659	.7004	8.152	5.715	1.063
#1	37.83	59.57	19.53	.0082	7.726	.0682
#2	41.15	59.53	19.77	.0075	8.505	.0672
#3	41.34	59.72	19.76	.0070	8.579	.0668

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2625**	**-.0435**	**.0684**	**-.0183**	**1.698**	**.9615**
Stddev	.0045	.0026	.0006	.0069	.004	.0012
%RSD	1.705	5.959	.8196	37.44	.2145	.1214
#1	.2629	-.0423	.0677	-.0260	1.695	.9624
#2	.2668	-.0417	.0685	-.0158	1.698	.9602
#3	.2579	-.0465	.0688	-.0130	1.702	.9620

Sample Name: 580-28333-A-2-E Acquired: 9/13/2011 23:48:54 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1869.5	22658.	314.58	838.81
Stddev	4.7	73.	12.97	36.81
%RSD	.24985	.32048	4.1218	4.3881
#1	1864.4	22686.	329.47	881.23
#2	1870.5	22711.	305.78	819.80
#3	1873.5	22575.	308.49	815.38

Sample Name: 580-28333-A-3-G Acquired: 9/13/2011 23:55:49 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0064**	**249.5**	**3.431**	**.0259**	**4.530**	**.00863**
Stddev	.0002	.9	.003	.0003	.052	.00083
%RSD	2.860	.3598	.0827	1.259	1.149	9.6006
#1	-.0063	249.6	3.430	.0260	4.497	.00780
#2	-.0066	248.5	3.430	.0261	4.590	.00945
#3	-.0063	250.2	3.435	.0255	4.503	.00865

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**262.4**	**-.0150**	**.2199**	**.0346**	**1.076**	**518.4**
Stddev	3.4	.0002	.0003	.0002	.003	3.4
%RSD	1.308	1.399	.1222	.5687	.2568	.6530
#1	261.3	-.0149	.2201	.0348	1.077	515.5
#2	266.2	-.0152	.2195	.0346	1.073	517.7
#3	259.6	-.0149	.2200	.0344	1.079	522.1

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**29.07**	**52.06**	**17.45**	**.0107**	**9.834**	**.0677**
Stddev	.25	.23	.03	.0003	.135	.0005
%RSD	.8720	.4363	.1767	2.490	1.376	.8059
#1	28.88	52.00	17.48	.0109	9.791	.0679
#2	29.36	51.87	17.45	.0107	9.986	.0671
#3	28.97	52.31	17.42	.0104	9.726	.0681

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1834**	**-.0150**	**.0418**	**-.0007**	**1.195**	**.8103**
Stddev	.0012	.0040	.0017	.0011	.005	.0015
%RSD	.6738	26.83	4.069	155.1	.4130	.1845
#1	.1847	-.0145	.0412	-.0019	1.194	.8098
#2	.1822	-.0193	.0406	.0003	1.190	.8092
#3	.1832	-.0113	.0438	-.0005	1.200	.8120

Sample Name: 580-28333-A-3-G Acquired: 9/13/2011 23:55:49 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1918.6**	**20826.**	**280.75**	**751.33**
Stddev	3.4	59.	1.08	8.09
%RSD	.17763	.28185	.38311	1.0770
#1	1920.4	20821.	280.08	752.43
#2	1920.7	20887.	280.19	742.74
#3	1914.6	20770.	281.99	758.81

Sample Name: 580-28333-B-4-B Acquired: 9/14/2011 0:02:36 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0052**	**230.1**	**4.159**	**.0102**	**5.354**	**.00732**
Stddev	.0008	3.0	.067	.0051	.048	.00090
%RSD	15.69	1.316	1.611	49.73	.9014	12.354
#1	-.0060	226.6	4.089	.0157	5.315	.00635
#2	-.0053	231.4	4.164	.0094	5.408	.00745
#3	-.0044	232.3	4.223	.0056	5.340	.00815

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**209.0**	**-.0181**	**.2198**	**.0488**	**1.730**	**576.9**
Stddev	1.6	.0007	.0014	.0004	.049	8.2
%RSD	.7848	3.659	.6377	.9091	2.824	1.427
#1	207.8	-.0189	.2210	.0492	1.783	567.9
#2	210.8	-.0178	.2201	.0483	1.722	578.9
#3	208.3	-.0177	.2183	.0488	1.686	584.0

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**38.10**	**49.54**	**10.56**	**.0309**	**9.745**	**.1179**
Stddev	.38	1.14	.36	.0052	.083	.0029
%RSD	.9999	2.302	3.404	16.79	.8499	2.431
#1	37.67	50.75	10.96	.0254	9.709	.1149
#2	38.38	49.38	10.45	.0317	9.840	.1180
#3	38.26	48.48	10.26	.0357	9.686	.1206

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2345**	**-.0107**	**.1579**	**-.1824**	**1.405**	**.8072**
Stddev	.0221	.0029	.0434	.0642	.031	.0045
%RSD	9.435	26.83	27.51	35.22	2.209	.5520
#1	.2163	-.0103	.1100	-.1168	1.438	.8121
#2	.2280	-.0137	.1687	-.1853	1.401	.8063
#3	.2591	-.0080	.1948	-.2451	1.376	.8033

Sample Name: 580-28333-B-4-B Acquired: 9/14/2011 0:02:36 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1598.3	18848.	286.42	760.76
Stddev	45.2	165.	5.31	4.64
%RSD	2.8251	.87689	1.8546	.61056
#1	1637.7	19009.	286.27	761.13
#2	1608.2	18857.	281.19	755.94
#3	1549.0	18679.	291.81	765.21

Sample Name: 580-28372-B-1-A Acquired: 9/14/2011 0:09:13 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0027**	**191.5**	**.7518**	**.0183**	**2.344**	**.00331**
Stddev	.0005	.3	.0041	.0004	.017	.00099
%RSD	19.68	.1654	.5458	2.149	.7383	30.037
#1	-.0033	191.1	.7560	.0187	2.324	.00248
#2	-.0027	191.8	.7515	.0180	2.354	.00304
#3	-.0022	191.5	.7479	.0184	2.354	.00441

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**97.41**	**-.0098**	**.1466**	**.0304**	**.7578**	**307.0**
Stddev	.86	.0002	.0004	.0002	.0018	1.3
%RSD	.8792	1.912	.2573	.7278	.2342	.4191
#1	96.42	-.0100	.1468	.0306	.7587	305.6
#2	97.92	-.0098	.1468	.0303	.7558	307.6
#3	97.88	-.0096	.1462	.0302	.7590	308.0

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**21.83**	**32.44**	**5.033**	**.0098**	**8.696**	**.0501**
Stddev	.33	.09	.007	.0004	.090	.0005
%RSD	1.524	.2884	.1462	3.687	1.031	1.048
#1	21.50	32.54	5.024	.0096	8.598	.0507
#2	21.82	32.44	5.037	.0102	8.774	.0497
#3	22.17	32.35	5.037	.0096	8.718	.0500

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0936**	**-.0077**	**.0201**	**.0034**	**.7935**	**.4804**
Stddev	.0021	.0026	.0024	.0015	.0013	.0012
%RSD	2.244	33.88	11.94	43.88	.1590	.2552
#1	.0920	-.0060	.0197	.0018	.7946	.4817
#2	.0960	-.0108	.0179	.0047	.7921	.4802
#3	.0927	-.0064	.0227	.0038	.7937	.4792

Sample Name: 580-28372-B-1-A Acquired: 9/14/2011 0:09:13 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1986.9	21375.	292.67	766.33
Stddev	6.1	9.	.84	4.79
%RSD	.30821	.04117	.28815	.62550
#1	1979.9	21385.	293.48	771.82
#2	1990.2	21367.	292.73	762.93
#3	1990.7	21373.	291.80	764.26

Sample Name: 580-28372-C-2-C Acquired: 9/14/2011 0:16:17 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0060**	**212.3**	**3.950**	**.0201**	**4.050**	**.00856**
Stddev	.0004	.9	.008	.0008	.066	.00181
%RSD	7.364	.4291	.1931	3.912	1.618	21.156
#1	-.0056	211.7	3.951	.0205	4.018	.01037
#2	-.0059	213.3	3.957	.0206	4.126	.00675
#3	-.0065	211.9	3.942	.0192	4.007	.00855

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**260.8**	**-.0178**	**.2174**	**.0493**	**1.288**	**571.7**
Stddev	4.6	.0005	.0008	.0002	.001	2.7
%RSD	1.766	2.603	.3541	.4768	.0458	.4780
#1	258.1	-.0172	.2181	.0490	1.289	571.3
#2	266.2	-.0180	.2175	.0495	1.288	574.6
#3	258.3	-.0181	.2166	.0492	1.287	569.2

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**46.38**	**56.71**	**12.44**	**.0066**	**10.21**	**.0909**
Stddev	1.05	.15	.07	.0002	.18	.0006
%RSD	2.256	.2567	.5360	2.581	1.768	.6668
#1	46.13	56.88	12.41	.0064	10.19	.0910
#2	47.53	56.64	12.40	.0067	10.40	.0914
#3	45.48	56.61	12.52	.0067	10.05	.0902

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1807**	**-.0182**	**.0362**	**.0135**	**1.064**	**1.002**
Stddev	.0015	.0033	.0032	.0021	.002	.002
%RSD	.8564	18.20	8.885	15.46	.1444	.1562
#1	.1815	-.0208	.0334	.0111	1.066	1.004
#2	.1789	-.0145	.0355	.0145	1.063	1.001
#3	.1818	-.0194	.0397	.0149	1.063	1.001

Sample Name: 580-28372-C-2-C Acquired: 9/14/2011 0:16:17 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1927.2	21069.	279.59	754.97
Stddev	3.5	20.	.74	10.36
%RSD	.17981	.09501	.26484	1.3725
#1	1931.0	21046.	280.17	761.01
#2	1924.2	21080.	278.75	743.01
#3	1926.3	21081.	279.85	760.90

Sample Name: 580-28372-B-3-A Acquired: 9/14/2011 0:23:04 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0063**	**231.2**	**3.981**	**.0271**	**3.724**	**.00818**
Stddev	.0002	1.2	.007	.0011	.032	.00018
%RSD	3.832	.5401	.1794	4.104	.8642	2.1407
#1	-.0065	229.8	3.985	.0272	3.687	.00804
#2	-.0064	231.6	3.985	.0282	3.747	.00812
#3	-.0060	232.2	3.972	.0260	3.739	.00838

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**261.2**	**-.0169**	**.2116**	**.0649**	**1.216**	**532.6**
Stddev	1.9	.0005	.0001	.0003	.001	2.6
%RSD	.7452	3.156	.0241	.4672	.1124	.4817
#1	259.9	-.0163	.2116	.0646	1.215	529.7
#2	263.4	-.0174	.2116	.0648	1.216	534.4
#3	260.2	-.0169	.2117	.0652	1.218	533.7

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**46.15**	**58.31**	**10.31**	**.0094**	**11.55**	**.0957**
Stddev	.47	.05	.08	.0003	.12	.0007
%RSD	1.008	.0813	.7385	3.283	1.078	.6966
#1	45.63	58.25	10.22	.0091	11.41	.0952
#2	46.53	58.34	10.32	.0097	11.58	.0964
#3	46.29	58.33	10.37	.0095	11.65	.0953

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1922**	**-.0156**	**.0361**	**.0047**	**1.086**	**1.174**
Stddev	.0014	.0044	.0057	.0044	.001	.001
%RSD	.7161	28.44	15.70	93.74	.0987	.0476
#1	.1925	-.0128	.0338	.0043	1.085	1.173
#2	.1934	-.0133	.0425	.0005	1.086	1.174
#3	.1907	-.0207	.0319	.0093	1.086	1.174

Sample Name: 580-28372-B-3-A Acquired: 9/14/2011 0:23:04 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1901.7	21054.	289.71	760.16
Stddev	4.3	1.	1.55	3.58
%RSD	.22673	.00377	.53356	.47128
#1	1906.5	21053.	290.87	764.29
#2	1898.1	21055.	287.95	758.19
#3	1900.5	21054.	290.31	757.99

Sample Name: 580-28372-C-4-A Acquired: 9/14/2011 0:29:51 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0011**	**644.4**	**.2462**	**.0298**	**5.290**	**.00974**
Stddev	.0004	7.2	.0050	.0008	.315	.00139
%RSD	37.56	1.119	2.018	2.634	5.954	14.245
#1	-.0015	641.9	.2520	.0290	5.285	.01068
#2	-.0007	652.6	.2434	.0306	5.608	.01040
#3	-.0011	638.8	.2433	.0297	4.978	.00815

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**127.2**	**-.0202**	**.3054**	**.0530**	**5.503**	**645.5**
Stddev	7.3	.0004	.0012	.0004	.014	5.1
%RSD	5.737	1.807	.4028	.7950	.2509	.7902
#1	127.7	-.0204	.3046	.0528	5.495	645.2
#2	134.3	-.0203	.3049	.0526	5.495	650.7
#3	119.7	-.0197	.3068	.0534	5.519	640.6

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**31.63**	**62.29**	**26.22**	**.0040**	**7.440**	**.0813**
Stddev	1.72	.22	.07	.0004	.533	.0009
%RSD	5.453	.3459	.2807	11.04	7.166	1.062
#1	31.77	62.09	26.23	.0035	7.471	.0822
#2	33.27	62.25	26.15	.0042	7.957	.0812
#3	29.83	62.52	26.30	.0043	6.892	.0805

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2128**	**-.0452**	**.0658**	**-.0202**	**1.533**	**2.225**
Stddev	.0032	.0019	.0029	.0020	.006	.005
%RSD	1.501	4.171	4.458	10.09	.3993	.2052
#1	.2091	-.0469	.0691	-.0224	1.529	2.222
#2	.2151	-.0455	.0648	-.0198	1.530	2.223
#3	.2141	-.0432	.0634	-.0183	1.540	2.230

Sample Name: 580-28372-C-4-A Acquired: 9/14/2011 0:29:51 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1835.6	21709.	313.75	812.20
Stddev	1.1	49.	12.46	42.26
%RSD	.06262	.22567	3.9716	5.2028
#1	1834.2	21732.	309.95	813.23
#2	1836.3	21742.	303.63	769.44
#3	1836.1	21653.	327.67	853.93

Sample Name: CCV Acquired: 9/14/2011 0:36:44 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.011**	**10.18**	**4.794**	**2.459**	**2.393**	**.09719**
Stddev	.001	.04	.005	.004	.032	.00013
%RSD	.1296	.3814	.1078	.1760	1.325	.13512
#1	1.011	10.20	4.798	2.454	2.358	.09724
#2	1.009	10.13	4.789	2.459	2.400	.09704
#3	1.012	10.20	4.797	2.463	2.420	.09729
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.95**	**.4878**	**.4885**	**.4883**	**.4739**	**9.782**
Stddev	.62	.0009	.0012	.0020	.0018	.048
%RSD	3.246	.1771	.2448	.4040	.3873	.4952
#1	18.33	.4884	.4891	.4901	.4755	9.790
#2	18.96	.4868	.4871	.4862	.4719	9.729
#3	19.56	.4881	.4892	.4885	.4742	9.825
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 0:36:44 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.08**	**19.19**	**.4806**	**.4792**	**14.35**	**.4680**
Stddev	.15	.04	.0017	.0002	.29	.0013
%RSD	.7752	.2154	.3631	.0455	2.018	.2740
#1	18.94	19.21	.4821	.4794	14.07	.4689
#2	19.05	19.14	.4787	.4790	14.33	.4686
#3	19.24	19.21	.4809	.4793	14.65	.4666
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.677**	**2.371**	**4.789**	**2.397**	**.4806**	**.4761**
Stddev	.002	.002	.016	.003	.0010	.0012
%RSD	.0370	.0921	.3249	.1136	.2038	.2563
#1	4.678	2.372	4.796	2.400	.4814	.4765
#2	4.675	2.368	4.771	2.395	.4795	.4748
#3	4.678	2.372	4.800	2.396	.4809	.4771
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 0:36:44 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2127.1	21665.	286.37	750.78
Stddev	5.8	45.	2.53	9.38
%RSD	.27218	.20748	.88515	1.2492
#1	2121.9	21616.	285.11	760.26
#2	2126.1	21704.	289.29	750.60
#3	2133.3	21675.	284.72	741.50

Sample Name: 580-28370-C-1-E Acquired: 9/14/2011 0:50:11 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0060**	**188.0**	**3.782**	**.0179**	**9.937**	**.00678**
Stddev	.0003	1.8	.006	.0002	.014	.00029
%RSD	4.866	.9798	.1726	1.128	.1381	4.3039
#1	-.0060	186.0	3.790	.0179	9.928	.00690
#2	-.0057	188.4	3.778	.0181	9.930	.00645
#3	-.0063	189.7	3.780	.0177	9.953	.00699

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**137.2**	**-.0154**	**.2319**	**.0411**	**1.232**	**543.2**
Stddev	.9	.0001	.0004	.0003	.004	3.3
%RSD	.6521	.5949	.1667	.7834	.3408	.6018
#1	136.3	-.0153	.2314	.0415	1.235	539.5
#2	137.4	-.0154	.2321	.0408	1.235	545.4
#3	138.0	-.0155	.2320	.0411	1.227	544.9

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**57.04**	**29.45**	**6.094**	**.0185**	**7.382**	**.0775**
Stddev	.44	.06	.050	.0001	.064	.0004
%RSD	.7722	.1866	.8245	.7232	.8618	.5170
#1	57.03	29.39	6.148	.0185	7.346	.0778
#2	56.61	29.48	6.049	.0186	7.345	.0777
#3	57.49	29.48	6.085	.0183	7.456	.0771

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2206**	**.0152**	**.0285**	**.0213**	**1.096**	**.8365**
Stddev	.0044	.0031	.0043	.0034	.001	.0022
%RSD	1.979	20.49	15.05	15.96	.0694	.2631
#1	.2246	.0144	.0325	.0223	1.096	.8390
#2	.2213	.0186	.0290	.0175	1.097	.8353
#3	.2159	.0126	.0240	.0240	1.096	.8351

Sample Name: 580-28370-C-1-E Acquired: 9/14/2011 0:50:11 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1984.6**	**21049.**	**290.38**	**761.04**
Stddev	.9	16.	3.04	4.77
%RSD	.04744	.07426	1.0472	.62661
#1	1984.4	21055.	287.33	757.23
#2	1985.6	21031.	293.41	766.38
#3	1983.8	21061.	290.41	759.49

Sample Name: 580-28370-C-2-E Acquired: 9/14/2011 0:56:58 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0018**	**608.9**	**.0539**	**.0331**	**4.678**	**.01327**
Stddev	.0003	2.0	.0004	.0009	.058	.00152
%RSD	16.13	.3219	.8285	2.820	1.245	11.470
#1	-.0016	606.7	.0533	.0321	4.619	.01156
#2	-.0022	610.2	.0540	.0330	4.679	.01374
#3	-.0018	609.9	.0542	.0340	4.736	.01449

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**183.5**	**-.0185**	**.3347**	**.0508**	**1.551**	**549.4**
Stddev	2.0	.0001	.0007	.0002	.006	5.6
%RSD	1.110	.7732	.2219	.4909	.3833	1.019
#1	182.0	-.0186	.3342	.0511	1.545	542.9
#2	182.6	-.0184	.3356	.0509	1.549	553.1
#3	185.8	-.0184	.3345	.0506	1.557	552.1

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**33.38**	**72.97**	**15.65**	**.0036**	**6.324**	**.0633**
Stddev	.19	.19	.04	.0002	.100	.0006
%RSD	.5752	.2641	.2607	6.593	1.588	1.017
#1	33.18	72.75	15.68	.0033	6.221	.0639
#2	33.39	73.06	15.60	.0038	6.329	.0632
#3	33.57	73.11	15.66	.0037	6.421	.0626

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2445**	**-.0434**	**.0536**	**-.0136**	**1.410**	**1.165**
Stddev	.0044	.0023	.0017	.0067	.003	.004
%RSD	1.804	5.208	3.157	48.84	.2002	.3766
#1	.2421	-.0431	.0544	-.0061	1.407	1.161
#2	.2496	-.0458	.0547	-.0161	1.411	1.170
#3	.2418	-.0413	.0517	-.0187	1.412	1.165

Sample Name: 580-28370-C-2-E Acquired: 9/14/2011 0:56:58 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1852.1	22503.	309.75	817.19
Stddev	1.2	78.	3.25	4.28
%RSD	.06457	.34534	1.0478	.52319
#1	1851.0	22592.	311.58	820.09
#2	1853.4	22468.	311.67	819.20
#3	1851.9	22450.	306.00	812.28

Sample Name: 580-28370-B-3-A Acquired: 9/14/2011 1:03:52 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0048**	**408.2**	**2.583**	**.0250**	**6.534**	**.00944**
Stddev	.0005	1.7	.012	.0003	.023	.00039
%RSD	11.26	.4193	.4478	1.102	.3468	4.1754
#1	-.0042	406.7	2.596	.0248	6.542	.00934
#2	-.0053	410.1	2.573	.0248	6.508	.00911
#3	-.0050	407.9	2.579	.0253	6.551	.00988

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**234.2**	**-.0184**	**.2653**	**.0581**	**1.715**	**577.7**
Stddev	.9	.0001	.0012	.0004	.007	2.8
%RSD	.3924	.5401	.4591	.7293	.3839	.4847
#1	234.3	-.0184	.2667	.0585	1.723	576.1
#2	233.3	-.0185	.2643	.0577	1.710	581.0
#3	235.1	-.0184	.2650	.0580	1.714	576.1

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**39.75**	**48.92**	**11.95**	**.0106**	**10.87**	**.0851**
Stddev	.38	.17	.10	.0002	.13	.0011
%RSD	.9625	.3425	.8035	1.918	1.220	1.289
#1	39.64	49.11	11.88	.0108	10.98	.0861
#2	39.43	48.80	11.92	.0106	10.72	.0852
#3	40.17	48.84	12.06	.0104	10.90	.0839

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2246**	**-.0171**	**.0449**	**.0063**	**1.316**	**.9682**
Stddev	.0016	.0039	.0011	.0025	.005	.0033
%RSD	.7290	23.06	2.445	39.43	.3784	.3429
#1	.2264	-.0149	.0450	.0036	1.321	.9720
#2	.2233	-.0217	.0459	.0085	1.311	.9668
#3	.2240	-.0148	.0437	.0069	1.315	.9659

Sample Name: 580-28370-B-3-A Acquired: 9/14/2011 1:03:52 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1910.3	21661.	294.98	793.69
Stddev	3.0	52.	1.87	6.99
%RSD	.15537	.23812	.63455	.88052
#1	1907.2	21604.	293.98	788.05
#2	1913.1	21672.	293.83	801.51
#3	1910.5	21706.	297.14	791.52

Sample Name: 580-28370-C-4-E Acquired: 9/14/2011 1:10:45 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0028**	**789.5**	**.1195**	**.0196**	**5.473**	**.01234**
Stddev	.0004	6.1	.0027	.0012	.253	.00055
%RSD	13.46	.7732	2.295	6.152	4.624	4.4872
#1	-.0029	794.3	.1214	.0191	5.758	.01297
#2	-.0024	782.6	.1208	.0209	5.275	.01210
#3	-.0031	791.6	.1164	.0187	5.387	.01194

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**120.0**	**-.0240**	**.3365**	**.0785**	**1.625**	**741.1**
Stddev	5.7	.0003	.0014	.0004	.000	3.9
%RSD	4.749	1.268	.4236	.4972	.0130	.5303
#1	126.3	-.0239	.3357	.0784	1.625	742.5
#2	115.1	-.0244	.3357	.0782	1.625	736.7
#3	118.7	-.0238	.3382	.0789	1.625	744.1

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**27.92**	**76.13**	**25.53**	**.0004**	**7.096**	**.0943**
Stddev	1.06	.25	.14	.0001	.405	.0002
%RSD	3.797	.3241	.5325	30.26	5.709	.1845
#1	29.09	75.94	25.39	.0003	7.535	.0941
#2	27.02	76.03	25.55	.0005	6.738	.0943
#3	27.66	76.41	25.65	.0005	7.014	.0944

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2168**	**-.0548**	**.0750**	**-.0257**	**1.773**	**1.046**
Stddev	.0046	.0032	.0010	.0033	.003	.002
%RSD	2.113	5.782	1.284	12.89	.1691	.1459
#1	.2177	-.0531	.0761	-.0287	1.771	1.045
#2	.2209	-.0585	.0746	-.0264	1.773	1.047
#3	.2118	-.0529	.0743	-.0221	1.776	1.047

Sample Name: 580-28370-C-4-E Acquired: 9/14/2011 1:10:45 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1836.4	21894.	308.45	806.59
Stddev	3.7	65.	10.87	32.05
%RSD	.20000	.29664	3.5239	3.9733
#1	1840.4	21945.	297.65	770.55
#2	1833.1	21916.	319.39	831.90
#3	1835.7	21821.	308.30	817.31

Sample Name: 580-28370-C-5-E Acquired: 9/14/2011 1:17:43 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0024**	**824.6**	**.0816**	**.0250**	**3.840**	**.01169**
Stddev	.0003	5.2	.0027	.0007	.025	.00082
%RSD	11.91	.6291	3.250	2.815	.6591	7.0239
#1	-.0024	819.2	.0815	.0246	3.867	.01202
#2	-.0026	824.9	.0843	.0259	3.817	.01075
#3	-.0021	829.6	.0790	.0246	3.836	.01229

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**138.2**	**-.0247**	**.2487**	**.0545**	**1.678**	**709.9**
Stddev	.5	.0002	.0015	.0006	.011	1.0
%RSD	.3404	.8551	.6158	1.128	.6406	.1453
#1	138.4	-.0246	.2502	.0548	1.690	708.9
#2	137.7	-.0245	.2487	.0549	1.674	710.9
#3	138.6	-.0249	.2471	.0538	1.669	710.0

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**29.94**	**76.37**	**6.925**	**-.0003**	**8.190**	**.1012**
Stddev	.37	.32	.056	.0004	.033	.0004
%RSD	1.239	.4124	.8027	131.6	.4015	.4348
#1	30.37	76.73	6.987	.0001	8.191	.1008
#2	29.69	76.25	6.910	-.0004	8.157	.1011
#3	29.77	76.13	6.879	-.0006	8.223	.1017

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.2125**	**-.0520**	**.0611**	**-.0076**	**2.066**	**1.040**
Stddev	.0056	.0009	.0028	.0020	.012	.004
%RSD	2.649	1.775	4.651	25.77	.6006	.3974
#1	.2098	-.0516	.0602	-.0098	2.080	1.044
#2	.2087	-.0515	.0643	-.0065	2.060	1.039
#3	.2190	-.0531	.0589	-.0064	2.058	1.036

Sample Name: 580-28370-C-5-E Acquired: 9/14/2011 1:17:43 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1802.0	22073.	309.63	808.00
Stddev	6.8	109.	1.74	9.96
%RSD	.37746	.49569	.56173	1.2326
#1	1795.2	21949.	308.83	797.18
#2	1802.1	22115.	311.63	816.78
#3	1808.8	22155.	308.44	810.06

Sample Name: 580-28370-C-6-D Acquired: 9/14/2011 1:24:43 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0034**	**309.6**	**1.642**	**.0194**	**5.491**	**.00686**
Stddev	.0009	1.9	.020	.0010	.002	.00014
%RSD	25.62	.6089	1.193	5.051	.0388	2.0149
#1	-.0044	311.0	1.664	.0186	5.493	.00702
#2	-.0029	307.5	1.629	.0192	5.490	.00681
#3	-.0029	310.4	1.632	.0205	5.489	.00676

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**154.5**	**-.0157**	**.2459**	**.1585**	**1.544**	**518.5**
Stddev	.6	.0017	.0057	.0090	.107	13.2
%RSD	.4013	10.53	2.331	5.664	6.939	2.554
#1	155.2	-.0175	.2398	.1683	1.661	533.4
#2	154.2	-.0155	.2470	.1562	1.521	513.8
#3	154.1	-.0142	.2511	.1508	1.451	508.2

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**31.72**	**42.56**	**9.331**	**.0285**	**8.228**	**.0767**
Stddev	.20	2.78	.687	.0025	.026	.0002
%RSD	.6399	6.534	7.365	8.916	.3150	.2287
#1	31.86	45.59	10.09	.0315	8.205	.0766
#2	31.49	41.96	9.162	.0271	8.223	.0767
#3	31.82	40.13	8.744	.0270	8.256	.0769

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1804**	**-.0133**	**.0504**	**-.0014**	**1.747**	**1.100**
Stddev	.0031	.0045	.0149	.0214	.110	.017
%RSD	1.716	34.13	29.48	1568.	6.311	1.537
#1	.1839	-.0182	.0671	-.0261	1.868	1.082
#2	.1779	-.0093	.0456	.0107	1.723	1.103
#3	.1794	-.0124	.0385	.0113	1.652	1.115

Sample Name: 580-28370-C-6-D Acquired: 9/14/2011 1:24:43 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1854.7**	**20798.**	**298.16**	**776.45**
Stddev	79.9	527.	1.44	1.65
%RSD	4.3098	2.5321	.48294	.21221
#1	1766.8	20212.	296.74	774.78
#2	1874.3	20952.	298.13	776.48
#3	1923.0	21231.	299.62	778.08

Sample Name: 580-28370-C-7-D Acquired: 9/14/2011 1:31:35 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0012**	**342.5**	**.1899**	**.0332**	**1.643**	**.00590**
Stddev	.0005	2.0	.0007	.0011	.010	.00172
%RSD	39.08	.5942	.3474	3.273	.5851	29.077
#1	-.0016	341.6	.1904	.0322	1.637	.00599
#2	-.0012	344.8	.1891	.0344	1.637	.00414
#3	-.0007	341.0	.1902	.0331	1.654	.00757

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**81.93**	**-.0126**	**.2004**	**.0468**	**.8938**	**401.2**
Stddev	.41	.0002	.0013	.0004	.0079	3.1
%RSD	.4981	1.882	.6366	.8530	.8891	.7775
#1	81.95	-.0123	.2016	.0472	.9018	402.0
#2	81.50	-.0128	.2006	.0468	.8936	403.9
#3	82.32	-.0126	.1990	.0464	.8859	397.8

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**23.91**	**53.46**	**6.041**	**.0370**	**7.428**	**.0674**
Stddev	.35	.30	.023	.0004	.042	.0007
%RSD	1.449	.5569	.3850	1.050	.5619	.9839
#1	24.19	53.74	6.067	.0370	7.446	.0682
#2	23.52	53.48	6.030	.0366	7.380	.0669
#3	24.02	53.15	6.024	.0373	7.458	.0672

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1241**	**-.0306**	**.0550**	**-.0011**	**3.646**	**.6253**
Stddev	.0015	.0008	.0036	.0020	.024	.0021
%RSD	1.188	2.686	6.514	187.0	.6630	.3347
#1	.1244	-.0315	.0553	-.0020	3.670	.6277
#2	.1255	-.0298	.0583	.0012	3.648	.6242
#3	.1226	-.0304	.0512	-.0025	3.621	.6240

Sample Name: 580-28370-C-7-D Acquired: 9/14/2011 1:31:35 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1936.7**	**21624.**	**295.52**	**776.47**
Stddev	1.0	102.	2.43	6.46
%RSD	.05379	.47039	.82190	.83152
#1	1936.1	21521.	292.78	775.58
#2	1937.9	21626.	296.39	783.33
#3	1936.1	21724.	297.40	770.51

Sample Name: 580-28370-B-8-A Acquired: 9/14/2011 1:38:36 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0005**	**269.2**	**.5228**	**.1031**	**2.117**	**.00336**
Stddev	.0004	3.5	.0059	.0011	.041	.00045
%RSD	80.39	1.308	1.122	1.107	1.934	13.512
#1	-.0007	265.2	.5168	.1034	2.136	.00377
#2	.0000	271.0	.5232	.1018	2.144	.00345
#3	-.0007	271.5	.5285	.1040	2.070	.00287

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1782.**	**-.0094**	**.1039**	**.0472**	**.7072**	**289.7**
Stddev	37.	.0002	.0005	.0004	.0008	2.8
%RSD	2.099	1.848	.4609	.8141	.1124	.9814
#1	1800.	-.0093	.1042	.0475	.7078	286.5
#2	1807.	-.0094	.1041	.0473	.7076	291.6
#3	1739.	-.0096	.1033	.0468	.7063	291.1

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**16.51**	**460.9**	**7.448**	**.0037**	**10.78**	**.1250**
Stddev	.28	1.6	.014	.0004	.24	.0011
%RSD	1.714	.3486	.1807	9.717	2.245	.8519
#1	16.74	461.0	7.435	.0036	10.91	.1258
#2	16.60	459.2	7.462	.0041	10.93	.1238
#3	16.19	462.4	7.449	.0034	10.50	.1253

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1526**	**-.0175**	**.0205**	**-.0029**	**1.624**	**.5368**
Stddev	.0020	.0018	.0034	.0012	.005	.0004
%RSD	1.341	10.11	16.64	40.91	.3022	.0799
#1	.1549	-.0159	.0214	-.0025	1.627	.5364
#2	.1520	-.0194	.0168	-.0020	1.628	.5369
#3	.1510	-.0173	.0234	-.0042	1.619	.5372

Sample Name: 580-28370-B-8-A Acquired: 9/14/2011 1:38:36 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1567.8	18803.	273.97	710.01
Stddev	.9	20.	5.51	19.69
%RSD	.05500	.10614	2.0112	2.7730
#1	1568.6	18793.	271.08	694.84
#2	1566.9	18790.	270.50	702.94
#3	1568.0	18826.	280.32	732.26

Sample Name: CCV Acquired: 9/14/2011 1:45:43 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.001**	**10.27**	**4.824**	**2.440**	**2.426**	**.09921**
Stddev	.001	.04	.010	.004	.031	.00163
%RSD	.1379	.4198	.2158	.1714	1.291	1.6455
#1	1.001	10.28	4.831	2.436	2.462	.09931
#2	1.002	10.22	4.812	2.444	2.404	.09754
#3	.9995	10.30	4.828	2.442	2.412	.10080
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.42**	**.4929**	**.4940**	**.4912**	**.4787**	**9.911**
Stddev	.24	.0006	.0006	.0030	.0014	.112
%RSD	1.253	.1239	.1124	.6176	.2997	1.125
#1	19.70	.4935	.4946	.4940	.4801	9.910
#2	19.29	.4923	.4937	.4915	.4789	10.02
#3	19.27	.4930	.4936	.4880	.4772	9.800
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 1:45:43 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.12**	**19.35**	**.4848**	**.4858**	**14.52**	**.4693**
Stddev	.37	.01	.0009	.0010	.13	.0015
%RSD	1.953	.0423	.1837	.2070	.8962	.3234
#1	19.53	19.35	.4857	.4868	14.67	.4697
#2	19.05	19.34	.4849	.4857	14.45	.4705
#3	18.79	19.36	.4839	.4848	14.44	.4676
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.703**	**2.398**	**4.813**	**2.403**	**.4847**	**.4810**
Stddev	.015	.005	.005	.003	.0003	.0003
%RSD	.3259	.1926	.1144	.1240	.0568	.0649
#1	4.710	2.401	4.812	2.402	.4848	.4812
#2	4.714	2.401	4.819	2.406	.4849	.4807
#3	4.686	2.393	4.808	2.400	.4843	.4811
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 1:45:43 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2101.5	21213.	278.97	733.88
Stddev	3.8	38.	3.52	8.74
%RSD	.17895	.18059	1.2621	1.1905
#1	2098.4	21172.	282.93	723.84
#2	2100.4	21248.	277.78	738.07
#3	2105.7	21220.	276.19	739.73

Sample Name: MB 580-95245/18-A Acquired: 9/14/2011 1:59:11 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0001**	**-.0451**	**.0014**	**.0015**	**-.0001**	**.00048**
Stddev	.0007	.0307	.0014	.0001	.0009	.00038
%RSD	666.1	67.98	97.14	6.742	1010.	78.018
#1	-.0006	-.0242	.0006	.0015	-.0005	.00035
#2	.0002	-.0308	.0030	.0014	-.0008	.00019
#3	.0008	-.0803	.0006	.0016	.0010	.00091

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0844**	**-.0001**	**.0000**	**-.0002**	**.0007**	**.0255**
Stddev	.1154	.0000	.000	.0002	.0006	.0267
%RSD	136.7	40.60	206.4	100.2	80.54	104.8
#1	-.0222	-.0002	.0000	-.0002	.0013	.0054
#2	.0686	-.0001	-.0001	.0000	.0001	.0558
#3	.2070	-.0001	.0000	-.0004	.0007	.0153

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2500**	**.0007**	**.0001**	**.0002**	**-.3112**	**.0004**
Stddev	.0767	.0011	.0001	.0001	.0292	.0005
%RSD	30.70	143.6	91.70	49.36	9.396	134.1
#1	.2296	.0020	.0000	.0001	-.3433	.0010
#2	.3348	.0004	.0001	.0002	-.3042	-.0001
#3	.1855	-.0001	.0001	.0003	-.2861	.0003

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0015**	**.0005**	**-.0026**	**.0015**	**.0000**	**.0001**
Stddev	.0024	.0021	.0014	.0005	.0001	.0001
%RSD	153.8	389.6	54.10	36.79	281.0	123.9
#1	-.0012	-.0016	-.0012	.0018	.0000	.0000
#2	.0032	.0007	-.0040	.0018	-.0001	.0002
#3	.0025	.0025	-.0027	.0009	.0002	.0002

Sample Name: MB 580-95245/18-A Acquired: 9/14/2011 1:59:11 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2294.9	22283.	293.23	741.56
Stddev	2.0	37.	1.45	13.04
%RSD	.08593	.16692	.49364	1.7587
#1	2292.8	22246.	291.83	731.98
#2	2295.0	22282.	294.72	756.42
#3	2296.7	22320.	293.15	736.30

Sample Name: LCS 580-95245/19-A Acquired: 9/14/2011 2:06:09 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6272**	**4.148**	**3.954**	**5.388**	**3.909**	**.10017**
Stddev	.0008	.109	.002	.008	.028	.00168
%RSD	.1323	2.625	.0476	.1407	.7128	1.6786
#1	.6264	4.062	3.952	5.397	3.911	.10134
#2	.6272	4.270	3.956	5.383	3.880	.10092
#3	.6280	4.112	3.954	5.384	3.935	.09824

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.08**	**.0982**	**.9851**	**.3991**	**.4823**	**22.07**
Stddev	.39	.0002	.0003	.0010	.0020	.23
%RSD	2.051	.2021	.0271	.2537	.4199	1.033
#1	18.99	.0979	.9849	.3984	.4806	22.33
#2	18.75	.0982	.9850	.4002	.4846	21.89
#3	19.52	.0983	.9854	.3986	.4817	21.99

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.01**	**19.31**	**.9832**	**4.758**	**19.42**	**.9695**
Stddev	.24	.08	.0021	.005	.20	.0004
%RSD	1.256	.3971	.2120	.0977	1.017	.0368
#1	19.25	19.23	.9810	4.752	19.44	.9697
#2	18.78	19.37	.9851	4.761	19.21	.9698
#3	19.02	19.34	.9836	4.759	19.61	.9691

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9583**	**2.912**	**3.925**	**3.888**	**.9720**	**.9768**
Stddev	.0059	.001	.009	.009	.0032	.0012
%RSD	.6178	.0496	.2335	.2400	.3338	.1225
#1	.9537	2.913	3.914	3.877	.9682	.9760
#2	.9650	2.910	3.929	3.894	.9737	.9761
#3	.9561	2.912	3.931	3.892	.9740	.9781

Sample Name: LCS 580-95245/19-A Acquired: 9/14/2011 2:06:09 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2133.8	21983.	297.23	757.12
Stddev	5.9	62.	5.86	10.79
%RSD	.27478	.28070	1.9706	1.4246
#1	2140.1	22054.	301.75	767.40
#2	2128.5	21942.	299.32	758.06
#3	2132.7	21953.	290.61	745.89

Sample Name: LCSD 580-95245/20-A Acquired: 9/14/2011 2:12:40 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6334**	**4.152**	**3.939**	**5.426**	**3.890**	**.09967**
Stddev	.0012	.179	.004	.011	.039	.00329
%RSD	.1927	4.317	.1127	.1941	.9913	3.3013
#1	.6336	4.359	3.934	5.436	3.934	.09865
#2	.6322	4.042	3.941	5.415	3.872	.10334
#3	.6346	4.055	3.943	5.428	3.863	.09700

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.20**	**.0981**	**.9806**	**.3920**	**.4765**	**21.72**
Stddev	.29	.0000	.0007	.0004	.0008	.10
%RSD	1.515	.0388	.0743	.1114	.1729	.4523
#1	19.53	.0981	.9805	.3917	.4756	21.76
#2	19.11	.0981	.9800	.3919	.4770	21.78
#3	18.97	.0981	.9814	.3925	.4771	21.60

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.99**	**19.37**	**.9737**	**4.704**	**19.43**	**.9663**
Stddev	.08	.02	.0017	.004	.27	.0017
%RSD	.4184	.1132	.1713	.0862	1.378	.1746
#1	19.06	19.37	.9722	4.701	19.72	.9673
#2	18.90	19.36	.9733	4.701	19.38	.9673
#3	19.00	19.40	.9755	4.708	19.20	.9644

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9605**	**2.897**	**3.939**	**3.883**	**.9634**	**.9706**
Stddev	.0015	.004	.010	.002	.0014	.0013
%RSD	.1571	.1564	.2564	.0416	.1430	.1315
#1	.9590	2.901	3.951	3.882	.9632	.9692
#2	.9620	2.892	3.935	3.885	.9621	.9708
#3	.9603	2.899	3.932	3.884	.9648	.9718

Sample Name: LCSD 580-95245/20-A Acquired: 9/14/2011 2:12:40 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2169.3	22382.	293.98	768.93
Stddev	5.7	44.	6.25	13.84
%RSD	.26321	.19618	2.1255	1.7999
#1	2173.8	22429.	291.55	755.05
#2	2162.9	22341.	289.32	769.00
#3	2171.2	22378.	301.08	782.73

Sample Name: LCSSRM 580-95245/21- Acquired: 9/14/2011 2:19:11 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6239**	**4.014**	**3.901**	**5.372**	**3.739**	**.09267**
Stddev	.0004	.185	.008	.001	.099	.00262
%RSD	.0682	4.609	.2083	.0140	2.650	2.8273
#1	.6244	3.876	3.894	5.372	3.784	.09229
#2	.6235	4.224	3.898	5.372	3.625	.09027
#3	.6239	3.942	3.910	5.373	3.808	.09546

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.66**	**.0969**	**.9679**	**.3892**	**.4722**	**21.19**
Stddev	.48	.0007	.0029	.0000	.0006	.03
%RSD	2.557	.7435	.3038	.0060	.1254	.1336
#1	18.88	.0963	.9646	.3892	.4719	21.16
#2	18.11	.0968	.9687	.3892	.4718	21.21
#3	18.98	.0977	.9702	.3892	.4729	21.19

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.52**	**19.11**	**.9642**	**4.659**	**18.59**	**.9586**
Stddev	.39	.06	.0017	.013	.51	.0019
%RSD	2.106	.3227	.1790	.2813	2.722	.2019
#1	18.47	19.05	.9630	4.646	18.76	.9564
#2	18.16	19.10	.9635	4.659	18.02	.9596
#3	18.93	19.17	.9662	4.672	18.99	.9599

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9462**	**2.867**	**3.893**	**3.831**	**.9481**	**.9578**
Stddev	.0043	.014	.018	.010	.0019	.0012
%RSD	.4584	.4763	.4673	.2532	.1974	.1206
#1	.9430	2.851	3.878	3.823	.9461	.9566
#2	.9445	2.872	3.888	3.829	.9483	.9578
#3	.9511	2.877	3.913	3.842	.9498	.9589

Sample Name: LCSSRM 580-95245/21- Acquired: 9/14/2011 2:19:11 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2169.5**	**22452.**	**303.59**	**785.76**
Stddev	2.4	69.	5.09	21.64
%RSD	.11151	.30672	1.6782	2.7539
#1	2172.1	22523.	302.57	775.19
#2	2169.3	22449.	309.13	810.65
#3	2167.2	22385.	299.09	771.43

Sample Name: 580-28299-D-1-B SD Acquired: 9/14/2011 2:25:43 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0003	-.0686	-.0004	.0127	.0100	.00000
Stddev	.0007	.1059	.0013	.0005	.0014	.00080
%RSD	261.0	154.4	365.6	4.220	14.12	23920.
#1	-.0002	-.1762	-.0018	.0131	.0091	-.00077
#2	-.0001	-.0653	.0001	.0130	.0116	-.00005
#3	.0011	.0356	.0007	.0121	.0093	.00083

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	11.51	-.0001	.0004	.0001	.0011	.0220
Stddev	.08	.0000	.0001	.0002	.0002	.0462
%RSD	.6934	19.83	23.67	132.6	16.40	210.4
#1	11.42	-.0001	.0004	.0000	.0013	.0748
#2	11.51	-.0001	.0004	.0004	.0010	.0024
#3	11.58	-.0001	.0003	.0000	.0010	-.0113

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	.5265	3.720	.0002	.0027	.8614	.0007
Stddev	.0964	.084	.0001	.0002	.0379	.0003
%RSD	18.30	2.264	52.90	7.788	4.404	41.73
#1	.6236	3.633	.0001	.0029	.8456	.0006
#2	.5250	3.726	.0002	.0026	.9046	.0010
#3	.4308	3.801	.0002	.0026	.8338	.0005

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0023	.0022	.0007	.0026	.0004	.0005
Stddev	.0001	.0009	.0013	.0017	.0002	.0002
%RSD	5.848	43.38	173.1	66.13	46.94	31.67
#1	.0022	.0011	.0004	.0022	.0002	.0007
#2	.0022	.0024	.0022	.0011	.0004	.0005
#3	.0024	.0030	-.0003	.0045	.0005	.0004

Sample Name: 580-28299-D-1-B SD Acquired: 9/14/2011 2:25:43 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2242.7	21855.	291.93	737.59
Stddev	11.2	60.	.86	5.13
%RSD	.49747	.27329	.29551	.69539
#1	2232.2	21790.	291.48	737.52
#2	2241.6	21868.	291.38	732.50
#3	2254.4	21908.	292.92	742.75

Sample Name: 580-28299-D-1-B Acquired: 9/14/2011 2:32:57 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0002	-.0740	.0029	.0219	.0467	.00046
Stddev	.0001	.0887	.0022	.0008	.0010	.00038
%RSD	80.38	119.8	74.68	3.707	2.193	82.785
#1	.0003	.0108	.0014	.0214	.0477	.00075
#2	.0002	-.0668	.0054	.0228	.0466	.00059
#3	.0001	-.1660	.0020	.0214	.0457	.00003

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	60.26	.0000	.0000	.0002	.0015	.0108
Stddev	.89	.0001	.000	.0003	.0004	.0806
%RSD	1.469	1491.	544.0	122.3	24.55	743.0
#1	60.56	-.0001	.0000	.0005	.0019	.0992
#2	60.95	.0001	.0002	.0004	.0011	-.0082
#3	59.26	.0000	-.0003	-.0001	.0015	-.0585

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	.9627	18.95	.0003	.0010	5.552	.0004
Stddev	.0741	.04	.0000	.0002	.033	.0003
%RSD	7.702	.2233	15.21	23.45	.5976	87.74
#1	.9935	18.98	.0003	.0012	5.563	.0001
#2	1.016	18.97	.0002	.0011	5.578	.0003
#3	.8781	18.90	.0003	.0008	5.514	.0008

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0034	.0028	-.0003	.0006	.0003	.0017
Stddev	.0010	.0010	.0008	.0003	.0002	.0001
%RSD	28.59	34.84	222.0	42.16	52.82	8.131
#1	.0023	.0019	-.0001	.0003	.0005	.0016
#2	.0037	.0027	.0003	.0009	.0004	.0018
#3	.0042	.0038	-.0012	.0006	.0001	.0017

Sample Name: 580-28299-D-1-B Acquired: 9/14/2011 2:32:57 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2190.7	22319.	293.79	760.60
Stddev	3.7	36.	3.52	11.86
%RSD	.16821	.16014	1.1968	1.5588
#1	2194.4	22334.	290.15	750.33
#2	2187.0	22278.	294.05	757.89
#3	2190.7	22344.	297.16	773.58

Sample Name: 580-28299-D-1-C DU Acquired: 9/14/2011 2:39:54 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0004	-.0929	.0012	.0200	.0472	.00013
Stddev	.0003	.1595	.0028	.0004	.0005	.00117
%RSD	66.31	171.6	229.3	1.795	1.042	909.41
#1	.0006	.0909	.0042	.0198	.0469	.00134
#2	.0001	-.1947	-.0015	.0204	.0469	-.00099
#3	.0005	-.1750	.0010	.0199	.0477	.00003

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	60.16	.0000	.0001	.0004	.0014	-.0351
Stddev	.13	.000	.0002	.0001	.0000	.0913
%RSD	.2121	247.0	174.4	26.84	1.070	260.4
#1	60.30	.0000	.0001	.0003	.0014	-.1396
#2	60.05	.0000	-.0001	.0005	.0014	.0054
#3	60.13	-.0001	.0003	.0004	.0014	.0290

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	.9546	19.22	.0003	.0008	5.576	.0001
Stddev	.1421	.03	.0000	.0000	.092	.0006
%RSD	14.89	.1740	8.650	5.753	1.659	652.3
#1	1.041	19.25	.0003	.0008	5.560	.0008
#2	.7906	19.24	.0004	.0008	5.493	-.0004
#3	1.033	19.19	.0003	.0008	5.676	-.0001

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0024	.0007	-.0013	.0008	.0004	.0014
Stddev	.0017	.0012	.0028	.0022	.0003	.0002
%RSD	69.23	171.4	204.4	260.1	72.39	15.94
#1	.0040	.0009	-.0010	.0000	.0007	.0011
#2	.0007	-.0006	.0012	-.0008	.0002	.0016
#3	.0026	.0017	-.0042	.0033	.0003	.0015

Sample Name: 580-28299-D-1-C DU Acquired: 9/14/2011 2:39:54 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2195.3	22225.	298.15	764.10
Stddev	2.1	22.	2.83	5.39
%RSD	.09618	.09783	.94762	.70592
#1	2197.3	22247.	301.40	761.79
#2	2195.5	22203.	296.30	770.27
#3	2193.1	22225.	296.74	760.25

Sample Name: 580-28299-D-1-D MS Acquired: 9/14/2011 2:46:52 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.6285**	**4.114**	**4.033**	**5.394**	**3.943**	**.10170**
Stddev	.0008	.098	.004	.014	.005	.00053
%RSD	.1304	2.374	.1092	.2642	.1385	.51720
#1	.6278	4.218	4.038	5.388	3.947	.10112
#2	.6283	4.098	4.031	5.410	3.945	.10215
#3	.6294	4.025	4.030	5.383	3.937	.10182

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**78.78**	**.0958**	**.9651**	**.3966**	**.4860**	**21.83**
Stddev	.26	.0001	.0006	.0016	.0011	.06
%RSD	.3307	.0806	.0593	.3937	.2332	.2968
#1	78.80	.0959	.9658	.3957	.4859	21.89
#2	79.02	.0958	.9650	.3957	.4848	21.76
#3	78.50	.0958	.9646	.3984	.4871	21.83

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**20.02**	**37.88**	**.9744**	**4.737**	**25.08**	**.9871**
Stddev	.09	.14	.0022	.003	.07	.0016
%RSD	.4633	.3785	.2242	.0565	.2622	.1589
#1	20.12	38.02	.9751	4.739	25.15	.9857
#2	20.00	37.73	.9719	4.738	25.07	.9888
#3	19.94	37.90	.9761	4.734	25.02	.9869

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.9719**	**2.937**	**3.951**	**3.926**	**.9729**	**.9848**
Stddev	.0035	.007	.003	.008	.0029	.0007
%RSD	.3644	.2296	.0872	.2054	.2972	.0680
#1	.9742	2.931	3.954	3.934	.9743	.9847
#2	.9738	2.944	3.951	3.925	.9696	.9842
#3	.9678	2.935	3.947	3.918	.9749	.9855

Sample Name: 580-28299-D-1-D MS Acquired: 9/14/2011 2:46:52 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2052.9	21988.	296.47	768.40
Stddev	.8	47.	1.08	3.69
%RSD	.04125	.21211	.36336	.48073
#1	2052.3	21975.	297.33	768.35
#2	2053.8	22040.	296.83	772.11
#3	2052.4	21949.	295.26	764.72

Sample Name: 580-28299-D-1-B PDS Acquired: 9/14/2011 2:59:54 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.5598**	**3.970**	**3.652**	**5.004**	**3.673**	**.09245**
Stddev	.0011	.210	.006	.002	.054	.00094
%RSD	.2032	5.302	.1562	.0469	1.476	1.0157
#1	.5592	4.178	3.658	5.004	3.731	.09147
#2	.5592	3.976	3.651	5.007	3.663	.09334
#3	.5611	3.757	3.647	5.002	3.624	.09255

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**71.81**	**.0878**	**.8828**	**.3615**	**.4386**	**19.45**
Stddev	.78	.0001	.0031	.0014	.0012	.17
%RSD	1.091	.1366	.3475	.3773	.2699	.8483
#1	72.61	.0879	.8862	.3610	.4389	19.49
#2	71.79	.0878	.8817	.3605	.4374	19.59
#3	71.04	.0877	.8804	.3631	.4397	19.27

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.11**	**34.18**	**.8841**	**4.263**	**23.03**	**.9027**
Stddev	.08	.06	.0019	.008	.41	.0027
%RSD	.4414	.1768	.2114	.1952	1.781	.2963
#1	18.15	34.21	.8849	4.273	23.50	.9033
#2	18.01	34.11	.8820	4.257	22.83	.9051
#3	18.15	34.21	.8855	4.260	22.75	.8998

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.8867**	**2.649**	**3.643**	**3.609**	**.8789**	**.9014**
Stddev	.0045	.005	.004	.008	.0014	.0024
%RSD	.5105	.1797	.1211	.2134	.1594	.2620
#1	.8908	2.654	3.648	3.600	.8804	.9040
#2	.8819	2.648	3.639	3.615	.8776	.8994
#3	.8873	2.644	3.643	3.612	.8788	.9009

Sample Name: 580-28299-D-1-B PDS Acquired: 9/14/2011 2:59:54 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2108.5	22574.	302.44	768.65
Stddev	4.2	46.	2.49	9.88
%RSD	.20033	.20477	.82223	1.2847
#1	2107.9	22521.	299.59	757.30
#2	2104.7	22606.	303.58	775.24
#3	2113.0	22595.	304.16	773.42

Sample Name: CCV Acquired: 9/14/2011 3:05:32 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.9991**	**10.25**	**4.710**	**2.431**	**2.426**	**.09610**
Stddev	.0020	.09	.017	.003	.023	.00231
%RSD	.1979	.9030	.3678	.1230	.9483	2.4050
#1	1.001	10.34	4.726	2.434	2.400	.09384
#2	.9983	10.27	4.692	2.428	2.440	.09846
#3	.9977	10.15	4.712	2.430	2.439	.09601
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.05**	**.4669**	**.4773**	**.4883**	**.4698**	**9.833**
Stddev	.09	.0018	.0014	.0009	.0014	.109
%RSD	.4974	.3882	.2894	.1849	.2941	1.104
#1	18.95	.4656	.4764	.4890	.4713	9.709
#2	19.13	.4662	.4766	.4873	.4687	9.908
#3	19.06	.4690	.4789	.4885	.4692	9.884
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 3:05:32 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.90**	**18.67**	**.4722**	**.4722**	**14.52**	**.4659**
Stddev	.33	.03	.0007	.0014	.19	.0013
%RSD	1.746	.1649	.1585	.2859	1.290	.2735
#1	18.54	18.71	.4730	.4734	14.33	.4674
#2	18.97	18.65	.4716	.4708	14.53	.4653
#3	19.19	18.66	.4719	.4725	14.70	.4651
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.559**	**2.321**	**4.655**	**2.346**	**.4703**	**.4687**
Stddev	.008	.002	.011	.004	.0005	.0005
%RSD	.1827	.0640	.2257	.1676	.0975	.0998
#1	4.563	2.321	4.657	2.348	.4699	.4691
#2	4.550	2.320	4.644	2.341	.4708	.4682
#3	4.565	2.323	4.665	2.348	.4703	.4687
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 3:05:32 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2108.5	21794.	293.74	740.09
Stddev	4.2	37.	2.42	6.22
%RSD	.19789	.16958	.82334	.84040
#1	2103.7	21819.	292.22	746.46
#2	2110.4	21812.	292.47	734.04
#3	2111.3	21752.	296.53	739.78

Sample Name: CCB Acquired: 9/14/2011 3:13:40 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0000**	**-.0369**	**.0012**	**.0068**	**.0016**	**-.00102**
Stddev	.000	.1459	.0004	.0006	.0016	.00128
%RSD	5412.	395.7	32.25	8.237	100.2	125.45
#1	-.0002	.1161	.0015	.0068	.0031	-.00161
#2	-.0002	-.1744	.0008	.0063	.0000	.00045
#3	.0004	-.0523	.0015	.0074	.0016	-.00191
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0446**	**.0000**	**-.0001**	**.0001**	**.0013**	**.0199**
Stddev	.0565	.000	.0001	.0001	.0003	.0187
%RSD	126.8	1245.	188.7	150.2	23.31	93.56
#1	.1096	.0001	.0000	.0002	.0012	.0392
#2	.0082	-.0001	.0000	-.0001	.0010	.0187
#3	.0158	-.0001	-.0002	.0001	.0016	.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 3:13:40 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.3329**	**.0019**	**.0000**	**.0006**	**-.2828**	**.0005**
Stddev	.0478	.0019	.0001	.0001	.0199	.0004
%RSD	14.35	99.90	505.4	15.40	7.048	77.90
#1	.3498	.0023	-.0001	.0006	-.2656	.0008
#2	.3699	.0037	.0001	.0007	-.2781	.0001
#3	.2789	-.0001	.0000	.0006	-.3046	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0016**	**.0034**	**-.0015**	**.0024**	**.0001**	**.0000**
Stddev	.0009	.0012	.0003	.0026	.0001	.0002
%RSD	57.05	33.88	22.13	107.2	93.62	751.7
#1	.0012	.0021	-.0011	.0010	.0002	-.0002
#2	.0010	.0037	-.0015	.0054	.0000	.0002
#3	.0027	.0044	-.0018	.0008	.0002	.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 3:13:40 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2299.1	22266.	288.36	735.36
Stddev	3.3	56.	10.00	25.81
%RSD	.14379	.25332	3.4685	3.5102
#1	2298.2	22202.	298.73	761.39
#2	2296.4	22308.	278.77	709.77
#3	2302.8	22288.	287.59	734.92

Sample Name: 580-28299-D-2-B Acquired: 9/14/2011 3:22:14 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0003	.0131	.0035	.0552	.1660	-.00025
Stddev	.0001	.1753	.0020	.0002	.0014	.00112
%RSD	31.05	1343.	57.13	.3381	.8545	444.95
#1	.0004	-.0238	.0058	.0553	.1645	-.00089
#2	.0004	.2039	.0022	.0553	.1660	.00104
#3	.0002	-.1409	.0025	.0550	.1674	-.00090

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	73.14	.0000	.0001	.0002	.0024	-.0050
Stddev	.49	.0001	.0002	.0001	.0005	.0438
%RSD	.6735	262.8	197.8	70.30	21.55	884.4
#1	72.80	-.0001	.0000	.0003	.0024	.0352
#2	72.91	.0001	-.0001	.0000	.0029	.0017
#3	73.70	.0001	.0003	.0003	.0018	-.0518

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	3.681	12.16	.0048	.0009	23.52	.0000
Stddev	.117	.03	.0000	.0002	.22	.0004
%RSD	3.177	.2121	.6245	24.21	.9215	985.9
#1	3.816	12.16	.0048	.0009	23.40	-.0004
#2	3.620	12.13	.0048	.0007	23.39	.0003
#3	3.608	12.18	.0048	.0012	23.77	.0003

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0034	.0019	-.0017	.0010	.0039	-.0001
Stddev	.0021	.0017	.0035	.0014	.0002	.0001
%RSD	61.72	88.21	199.1	141.4	3.825	112.5
#1	.0017	.0013	.0021	-.0001	.0041	.0000
#2	.0027	.0006	-.0028	.0026	.0038	-.0001
#3	.0057	.0037	-.0046	.0005	.0039	-.0003

Sample Name: 580-28299-D-2-B Acquired: 9/14/2011 3:22:14 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2165.4	22432.	301.11	764.50
Stddev	3.1	29.	2.28	8.58
%RSD	.14438	.12824	.75741	1.1218
#1	2165.3	22440.	303.64	772.19
#2	2168.5	22457.	300.49	766.06
#3	2162.3	22401.	299.20	755.25

Sample Name: 580-28299-E-3-B Acquired: 9/14/2011 3:28:15 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0004**	**-.1359**	**.0007**	**.0457**	**.0718**	**.00013**
Stddev	.0005	.1305	.0013	.0002	.0005	.00049
%RSD	113.5	96.02	172.7	.3452	.6601	372.06
#1	-.0007	-.0501	.0019	.0456	.0717	.00033
#2	-.0006	-.2862	-.0006	.0459	.0723	.00049
#3	.0001	-.0715	.0008	.0455	.0714	-.00043

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**29.06**	**-.0006**	**-.0002**	**.0000**	**.0008**	**16.26**
Stddev	.28	.0001	.0000	.0002	.0003	.12
%RSD	.9538	20.29	18.52	716.9	39.17	.7587
#1	28.78	-.0004	-.0002	.0003	.0011	16.13
#2	29.33	-.0007	-.0002	.0001	.0006	16.37
#3	29.05	-.0006	-.0002	-.0002	.0006	16.27

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**1.386**	**6.444**	**.2105**	**.0000**	**10.33**	**.0007**
Stddev	.092	.011	.0003	.0002	.05	.0006
%RSD	6.656	.1711	.1208	449.7	.4511	78.44
#1	1.318	6.441	.2104	-.0001	10.30	.0013
#2	1.350	6.434	.2108	.0002	10.30	.0008
#3	1.491	6.456	.2103	.0000	10.38	.0001

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0024**	**-.0011**	**-.0023**	**-.0004**	**.0007**	**.0029**
Stddev	.0009	.0009	.0006	.0012	.0001	.0002
%RSD	37.92	79.40	25.59	288.5	18.40	6.098
#1	.0014	-.0006	-.0025	.0006	.0007	.0028
#2	.0031	-.0006	-.0027	-.0001	.0006	.0031
#3	.0027	-.0022	-.0016	-.0018	.0009	.0028

Sample Name: 580-28299-E-3-B Acquired: 9/14/2011 3:28:15 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2273.3	22750.	306.11	785.02
Stddev	10.8	19.	.87	1.52
%RSD	.47476	.08357	.28340	.19343
#1	2279.8	22768.	306.15	783.33
#2	2279.2	22753.	306.95	786.25
#3	2260.8	22730.	305.22	785.50

Sample Name: 580-28299-E-4-B Acquired: 9/14/2011 3:34:16 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0002	.2446	.0065	.0556	.1308	.00001
Stddev	.0001	.1074	.0014	.0002	.0024	.00032
%RSD	67.90	43.89	20.99	.4376	1.818	6282.9
#1	.0003	.1265	.0060	.0554	.1287	.00019
#2	.0002	.2712	.0080	.0556	.1334	-.00036
#3	.0000	.3362	.0054	.0559	.1305	.00019

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	102.6	-.0001	.0003	.0004	.0033	.2939
Stddev	1.0	.0001	.0001	.0002	.0003	.0386
%RSD	.9441	60.02	23.15	41.17	9.686	13.14
#1	101.5	-.0002	.0002	.0002	.0037	.3006
#2	103.4	-.0001	.0003	.0006	.0032	.2524
#3	103.0	.0000	.0003	.0004	.0031	.3288

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	4.722	22.81	.1439	.0003	17.01	.0013
Stddev	.152	.20	.0013	.0001	.11	.0005
%RSD	3.209	.8910	.8892	48.02	.6716	39.94
#1	4.563	22.68	.1429	.0003	16.89	.0008
#2	4.738	23.04	.1453	.0001	17.01	.0013
#3	4.864	22.71	.1435	.0004	17.12	.0018

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0032	.0025	-.0044	.0019	.0023	.0041
Stddev	.0006	.0022	.0025	.0026	.0003	.0002
%RSD	18.14	87.02	56.98	133.8	12.51	5.072
#1	.0026	.0029	-.0016	.0018	.0019	.0040
#2	.0034	.0044	-.0053	.0045	.0025	.0039
#3	.0037	.0001	-.0064	-.0006	.0024	.0043

Sample Name: 580-28299-E-4-B Acquired: 9/14/2011 3:34:16 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2132.2	22159.	299.50	775.69
Stddev	19.8	234.	2.09	1.73
%RSD	.92852	1.0564	.69800	.22342
#1	2143.6	22333.	301.82	777.52
#2	2109.4	21893.	298.92	774.08
#3	2143.7	22251.	297.76	775.47

Sample Name: 580-28378-A-1-A Acquired: 9/14/2011 3:40:17 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0002**	**.0274**	**-.0004**	**.0378**	**.0121**	**.00074**
Stddev	.0002	.1870	.0018	.0002	.0015	.00049
%RSD	143.6	681.8	431.4	.5031	12.20	65.977
#1	-.0004	-.1013	-.0007	.0376	.0104	.00110
#2	-.0001	-.0584	-.0020	.0379	.0132	.00018
#3	.0000	.2419	.0015	.0378	.0128	.00095

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**28.27**	**.0000**	**-.0001**	**.0001**	**.0018**	**-.0029**
Stddev	.29	.0001	.0001	.0002	.0002	.0077
%RSD	1.033	725.6	134.9	140.7	11.59	262.4
#1	28.07	-.0001	-.0002	.0000	.0020	.0015
#2	28.13	.0000	.0000	.0004	.0017	.0015
#3	28.60	.0001	-.0001	.0001	.0017	-.0118

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**3.070**	**9.565**	**.0003**	**.0008**	**13.16**	**.0007**
Stddev	.174	.018	.0000	.0001	.18	.0002
%RSD	5.658	.1887	14.77	10.33	1.356	36.17
#1	2.879	9.581	.0002	.0008	12.95	.0009
#2	3.114	9.568	.0003	.0009	13.27	.0005
#3	3.218	9.545	.0003	.0009	13.25	.0005

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0016**	**.0011**	**-.0026**	**-.0002**	**.0030**	**.0013**
Stddev	.0006	.0017	.0022	.0014	.0002	.0000
%RSD	37.67	155.1	83.43	886.6	7.233	2.895
#1	.0011	.0023	-.0016	-.0010	.0028	.0013
#2	.0016	.0018	-.0011	-.0008	.0032	.0013
#3	.0023	-.0008	-.0051	.0014	.0030	.0012

Sample Name: 580-28378-A-1-A Acquired: 9/14/2011 3:40:17 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2243.8	22665.	306.04	772.35
Stddev	5.9	40.	1.33	8.51
%RSD	.26413	.17735	.43563	1.1018
#1	2238.5	22623.	306.28	782.14
#2	2242.8	22669.	307.24	768.17
#3	2250.2	22703.	304.60	766.75

Sample Name: 580-28378-A-2-A Acquired: 9/14/2011 3:46:20 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0003**	**-.1139**	**.0037**	**.0920**	**.0603**	**.00006**
Stddev	.0003	.0883	.0011	.0003	.0005	.00094
%RSD	101.9	77.48	29.88	.3427	.8908	1647.4
#1	-.0002	-.0161	.0047	.0920	.0597	.00064
#2	-.0006	-.1382	.0025	.0916	.0603	.00056
#3	.0000	-.1875	.0038	.0923	.0608	-.00103

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**42.88**	**-.0001**	**.0005**	**.0006**	**.0023**	**5.404**
Stddev	.73	.0000	.0002	.0001	.0003	.068
%RSD	1.694	37.72	37.98	16.45	12.12	1.251
#1	43.67	-.0002	.0005	.0005	.0026	5.480
#2	42.71	-.0001	.0006	.0007	.0021	5.351
#3	42.25	-.0001	.0003	.0006	.0021	5.380

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**26.75**	**10.45**	**1.029**	**.0013**	**15.88**	**.0037**
Stddev	.31	.03	.001	.0001	.14	.0002
%RSD	1.145	.2882	.1381	6.731	.8575	5.303
#1	27.10	10.43	1.027	.0014	16.03	.0037
#2	26.51	10.44	1.029	.0013	15.86	.0039
#3	26.65	10.48	1.030	.0012	15.76	.0035

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0032**	**-.0003**	**-.0022**	**.0013**	**.0036**	**.0072**
Stddev	.0018	.0011	.0043	.0012	.0001	.0001
%RSD	56.41	363.4	198.6	88.68	2.567	1.193
#1	.0032	.0002	-.0049	.0003	.0036	.0073
#2	.0050	-.0016	.0028	.0026	.0037	.0071
#3	.0014	.0005	-.0043	.0011	.0036	.0071

Sample Name: 580-28378-A-2-A Acquired: 9/14/2011 3:46:20 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2161.7	22261.	306.78	759.69
Stddev	8.6	77.	1.01	12.17
%RSD	.39873	.34508	.32831	1.6019
#1	2153.6	22280.	305.64	746.69
#2	2170.8	22326.	307.53	770.81
#3	2160.6	22176.	307.18	761.59

Sample Name: 580-28378-A-3-A Acquired: 9/14/2011 3:52:22 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**-.0001**	**.1211**	**.0065**	**.0697**	**.0427**	**.00074**
Stddev	.0006	.0933	.0022	.0005	.0032	.00050
%RSD	1052.	77.03	34.53	.6589	7.384	68.248
#1	-.0006	.2163	.0082	.0701	.0391	.00049
#2	-.0002	.1173	.0040	.0697	.0447	.00132
#3	.0006	.0298	.0074	.0692	.0443	.00041

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**29.48**	**-.0003**	**.0022**	**.0017**	**.0025**	**7.553**
Stddev	.45	.0000	.0002	.0003	.0003	.133
%RSD	1.517	12.71	6.768	17.88	10.63	1.761
#1	28.97	-.0003	.0021	.0015	.0023	7.473
#2	29.62	-.0003	.0024	.0020	.0028	7.480
#3	29.83	-.0002	.0023	.0016	.0025	7.707

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**12.40**	**10.74**	**.9763**	**.0023**	**18.22**	**.0081**
Stddev	.11	.01	.0005	.0001	.24	.0000
%RSD	.8630	.0588	.0540	2.804	1.305	.3053
#1	12.30	10.74	.9769	.0024	17.95	.0080
#2	12.51	10.73	.9758	.0024	18.35	.0081
#3	12.39	10.74	.9762	.0022	18.37	.0081

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0045**	**.0013**	**-.0019**	**.0002**	**.0198**	**.0042**
Stddev	.0019	.0007	.0015	.0004	.0002	.0000
%RSD	41.79	52.08	78.93	249.9	1.016	.8656
#1	.0027	.0007	-.0018	-.0002	.0198	.0042
#2	.0065	.0011	-.0035	.0000	.0200	.0042
#3	.0045	.0020	-.0005	.0007	.0196	.0041

Sample Name: 580-28378-A-3-A Acquired: 9/14/2011 3:52:22 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2194.6**	**22641.**	**308.57**	**770.43**
Stddev	7.8	36.	.70	9.25
%RSD	.35580	.15785	.22741	1.2012
#1	2197.3	22677.	309.35	780.60
#2	2185.7	22606.	307.98	762.51
#3	2200.6	22641.	308.40	768.20

Sample Name: 580-28378-A-5-A Acquired: 9/14/2011 4:04:24 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0001	-.0083	.0051	.0947	.0215	.00057
Stddev	.0004	.0294	.0023	.0005	.0016	.00108
%RSD	454.0	355.9	46.02	.5714	7.638	190.06
#1	.0003	.0027	.0038	.0941	.0234	.00140
#2	.0004	.0141	.0078	.0951	.0207	.00095
#3	-.0004	-.0416	.0037	.0948	.0204	-.00065

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	52.78	-.0002	.0012	.0007	.0019	6.074
Stddev	.34	.0000	.0002	.0002	.0002	.120
%RSD	.6487	3.896	13.75	35.25	10.58	1.981
#1	53.11	-.0002	.0013	.0007	.0020	5.992
#2	52.43	-.0002	.0010	.0004	.0017	6.212
#3	52.79	-.0002	.0014	.0009	.0021	6.018

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	9.923	18.50	4.469	.0011	25.89	.0029
Stddev	.233	.07	.017	.0004	.18	.0003
%RSD	2.352	.3703	.3682	32.06	.7114	8.895
#1	10.02	18.48	4.459	.0015	25.99	.0029
#2	9.657	18.45	4.460	.0010	25.68	.0031
#3	10.09	18.58	4.488	.0008	26.01	.0026

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0038	-.0028	-.0015	-.0009	.0015	.0078
Stddev	.0004	.0010	.0024	.0017	.0002	.0001
%RSD	9.456	36.62	159.5	192.5	11.37	1.782
#1	.0035	-.0021	.0011	.0007	.0014	.0077
#2	.0037	-.0023	-.0020	-.0027	.0017	.0079
#3	.0042	-.0040	-.0035	-.0006	.0015	.0079

Sample Name: 580-28378-A-5-A Acquired: 9/14/2011 4:04:24 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2159.9	22468.	305.11	769.03
Stddev	2.8	67.	1.73	8.28
%RSD	.12752	.29612	.56799	1.0763
#1	2160.1	22513.	305.25	763.18
#2	2157.0	22500.	303.32	778.50
#3	2162.5	22392.	306.78	765.42

Sample Name: CCV Acquired: 9/14/2011 4:10:25 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.003**	**10.34**	**4.758**	**2.438**	**2.389**	**.09689**
Stddev	.001	.03	.002	.006	.018	.00241
%RSD	.1357	.3120	.0515	.2352	.7700	2.4887
#1	1.003	10.31	4.756	2.443	2.384	.09624
#2	1.004	10.37	4.760	2.432	2.410	.09486
#3	1.001	10.35	4.757	2.440	2.374	.09955
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.80**	**.4796**	**.4841**	**.4886**	**.4720**	**9.927**
Stddev	.15	.0006	.0003	.0017	.0013	.124
%RSD	.8075	.1298	.0720	.3468	.2705	1.251
#1	18.65	.4795	.4837	.4889	.4717	9.824
#2	18.95	.4803	.4844	.4901	.4734	10.07
#3	18.81	.4791	.4842	.4868	.4709	9.892
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 4:10:25 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.81**	**18.91**	**.4760**	**.4759**	**14.31**	**.4664**
Stddev	.11	.07	.0019	.0015	.12	.0011
%RSD	.5939	.3698	.3926	.3061	.8421	.2272
#1	18.86	18.86	.4755	.4743	14.23	.4675
#2	18.89	18.99	.4781	.4771	14.45	.4653
#3	18.68	18.88	.4745	.4764	14.26	.4665
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.614**	**2.351**	**4.731**	**2.368**	**.4764**	**.4736**
Stddev	.007	.003	.005	.007	.0022	.0010
%RSD	.1534	.1425	.1150	.3169	.4703	.2141
#1	4.622	2.350	4.725	2.367	.4754	.4729
#2	4.610	2.348	4.736	2.361	.4790	.4748
#3	4.610	2.354	4.733	2.376	.4749	.4732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 4:10:25 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2116.6	21612.	295.32	753.60
Stddev	1.9	65.	2.51	2.75
%RSD	.09044	.29988	.84878	.36448
#1	2117.8	21663.	297.76	752.27
#2	2114.4	21539.	295.45	751.78
#3	2117.5	21635.	292.75	756.76

Sample Name: CCB Acquired: 9/14/2011 4:16:01 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0016**	**.0668**	**.0083**	**.0148**	**.0085**	**.00127**
Stddev	.0001	.1469	.0008	.0004	.0005	.00072
%RSD	9.216	219.8	9.944	2.859	6.424	56.975
#1	.0015	.2038	.0091	.0152	.0079	.00202
#2	.0015	.0850	.0075	.0148	.0086	.00058
#3	.0017	-.0883	.0084	.0143	.0090	.00120
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2260**	**.0001**	**.0020**	**.0007**	**.0021**	**.0867**
Stddev	.1013	.0000	.0002	.0003	.0005	.0357
%RSD	44.83	19.01	9.681	44.38	26.25	41.26
#1	.1449	.0001	.0023	.0010	.0027	.0833
#2	.3395	.0001	.0019	.0008	.0019	.1240
#3	.1935	.0002	.0020	.0004	.0016	.0527
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 4:16:01 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.2169**	**.0781**	**.0021**	**.0101**	**-.2013**	**.0023**
Stddev	.0611	.0012	.0000	.0000	.0162	.0004
%RSD	28.17	1.585	1.514	.1881	8.045	15.99
#1	.2745	.0777	.0021	.0101	-.2173	.0020
#2	.1528	.0795	.0021	.0101	-.1849	.0027
#3	.2235	.0771	.0021	.0101	-.2019	.0022
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0036**	**.0073**	**.0059**	**.0091**	**.0020**	**.0018**
Stddev	.0007	.0016	.0019	.0020	.0001	.0002
%RSD	19.29	22.17	31.52	22.38	5.818	11.86
#1	.0030	.0091	.0043	.0114	.0019	.0016
#2	.0035	.0059	.0055	.0076	.0021	.0018
#3	.0044	.0068	.0080	.0082	.0021	.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 4:16:01 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2274.8	22167.	296.39	740.13
Stddev	3.3	27.	3.09	4.85
%RSD	.14315	.12246	1.0438	.65515
#1	2271.2	22156.	293.00	738.86
#2	2275.6	22147.	297.11	745.48
#3	2277.6	22198.	299.05	736.04

Sample Name: 580-28378-A-7-A Acquired: 9/14/2011 4:22:06 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0037**	**-.0233**	**.0215**	**.1311**	**.0618**	**.00047**
Stddev	.0006	.0431	.0014	.0007	.0012	.00047
%RSD	16.20	185.0	6.392	.5138	2.005	99.948
#1	.0043	-.0090	.0228	.1319	.0630	.00041
#2	.0033	.0108	.0217	.1310	.0605	.00097
#3	.0034	-.0718	.0201	.1306	.0618	.00003

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**28.05**	**.0001**	**.0053**	**.0023**	**.0049**	**9.753**
Stddev	.29	.0001	.0001	.0001	.0002	.086
%RSD	1.046	48.30	2.229	3.332	3.349	.8857
#1	28.14	.0001	.0052	.0023	.0051	9.706
#2	28.30	.0002	.0054	.0023	.0047	9.852
#3	27.73	.0001	.0053	.0024	.0049	9.700

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**9.354**	**9.499**	**1.329**	**.0244**	**15.83**	**.0063**
Stddev	.063	.020	.002	.0002	.17	.0007
%RSD	.6717	.2142	.1568	.7238	1.068	10.58
#1	9.288	9.505	1.330	.0245	15.78	.0064
#2	9.361	9.516	1.330	.0244	16.02	.0056
#3	9.414	9.476	1.326	.0242	15.69	.0069

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0095**	**.0134**	**.0205**	**.0181**	**.0067**	**.0085**
Stddev	.0005	.0011	.0025	.0009	.0003	.0001
%RSD	5.453	8.486	12.47	5.191	4.014	1.221
#1	.0096	.0130	.0202	.0191	.0065	.0086
#2	.0099	.0147	.0181	.0172	.0066	.0085
#3	.0089	.0125	.0231	.0181	.0070	.0085

Sample Name: 580-28378-A-7-A Acquired: 9/14/2011 4:22:06 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2214.9	22815.	304.53	762.01
Stddev	7.3	17.	5.22	6.89
%RSD	.32960	.07517	1.7151	.90459
#1	2223.1	22812.	309.73	762.50
#2	2212.5	22800.	299.28	754.89
#3	2209.1	22834.	304.59	768.65

Sample Name: 580-28387-A-4-A Acquired: 9/14/2011 4:28:08 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	.0000	-.1181	.0025	.0972	.0239	.00032
Stddev	.0001	.0810	.0016	.0002	.0005	.00060
%RSD	448.7	68.62	63.11	.1985	1.992	187.58
#1	-.0001	-.1873	.0007	.0973	.0235	.00084
#2	.0001	-.0290	.0032	.0970	.0239	.00047
#3	.0000	-.1379	.0037	.0974	.0244	-.00034

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	30.00	.0001	.0018	.0045	.0239	.4933
Stddev	.25	.0001	.0001	.0001	.0005	.0306
%RSD	.8419	51.68	6.236	3.270	2.232	6.203
#1	29.79	.0001	.0016	.0044	.0236	.5272
#2	30.28	.0001	.0018	.0047	.0236	.4851
#3	29.92	.0002	.0018	.0044	.0245	.4677

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	43.06	11.07	.0799	.0004	72.16	.0032
Stddev	.33	.02	.0001	.0001	.44	.0004
%RSD	.7581	.2168	.1525	24.00	.6127	12.53
#1	43.14	11.10	.0800	.0004	72.32	.0034
#2	43.34	11.06	.0798	.0003	72.50	.0034
#3	42.70	11.05	.0798	.0004	71.66	.0027

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0303	.0009	-.0023	.0024	.0015	.1331
Stddev	.0036	.0012	.0006	.0008	.0001	.0002
%RSD	11.82	128.8	27.42	32.23	8.145	.1128
#1	.0310	.0020	-.0030	.0016	.0016	.1332
#2	.0265	-.0004	-.0019	.0025	.0016	.1329
#3	.0336	.0011	-.0020	.0031	.0014	.1331

Sample Name: 580-28387-A-4-A Acquired: 9/14/2011 4:28:08 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2165.0	23240.	317.17	788.16
Stddev	3.9	36.	4.07	3.65
%RSD	.17930	.15441	1.2821	.46316
#1	2168.9	23216.	317.97	789.87
#2	2164.9	23223.	320.77	783.97
#3	2161.2	23282.	312.76	790.64

Sample Name: 580-28392-B-1-A Acquired: 9/14/2011 4:34:05 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	-.0002	-.2000	.0031	.0462	.0102	.00088
Stddev	.0005	.1311	.0006	.0006	.0023	.00123
%RSD	299.4	65.53	19.90	1.238	22.62	139.99
#1	-.0005	-.2765	.0036	.0457	.0089	-.00004
#2	.0004	-.0487	.0033	.0461	.0128	.00040
#3	-.0003	-.2749	.0024	.0468	.0088	.00227

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	25.95	.0000	-.0001	.0001	.0034	-.0019
Stddev	.25	.000	.0002	.0002	.0002	.0380
%RSD	.9610	741.9	212.2	144.6	5.334	1984.
#1	25.67	.0001	-.0001	.0002	.0033	.0343
#2	26.16	.0001	.0001	.0001	.0036	.0014
#3	26.02	-.0002	-.0004	-.0001	.0032	-.0414

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	3.891	8.444	.0009	.0004	14.00	.0018
Stddev	.095	.017	.0000	.0001	.14	.0002
%RSD	2.436	.2039	1.235	14.04	.9757	11.28
#1	3.886	8.449	.0009	.0005	13.91	.0020
#2	3.799	8.458	.0009	.0004	13.94	.0019
#3	3.988	8.425	.0009	.0004	14.16	.0016

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0046	.0006	-.0032	.0016	.0038	.0045
Stddev	.0011	.0017	.0012	.0018	.0001	.0002
%RSD	23.75	269.0	39.33	110.0	2.949	3.553
#1	.0047	-.0012	-.0044	.0034	.0038	.0044
#2	.0034	.0021	-.0019	.0016	.0039	.0047
#3	.0056	.0010	-.0032	-.0002	.0037	.0043

Sample Name: 580-28392-B-1-A Acquired: 9/14/2011 4:34:05 Type: Unk
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2186.0**	**22775.**	**314.04**	**740.01**
Stddev	9.7	21.	1.78	4.92
%RSD	.44375	.09398	.56608	.66438
#1	2179.2	22758.	315.64	743.36
#2	2181.8	22769.	314.36	742.29
#3	2197.2	22799.	312.13	734.36

Sample Name: CCV 00033 Acquired: 9/14/2011 4:40:07 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**1.012**	**10.29**	**4.725**	**2.455**	**2.469**	**.09305**
Stddev	.002	.36	.009	.007	.014	.00133
%RSD	.2013	3.499	.1892	.2820	.5480	1.4339
#1	1.011	10.69	4.730	2.449	2.459	.09151
#2	1.015	10.17	4.714	2.462	2.465	.09373
#3	1.012	10.00	4.730	2.453	2.485	.09391
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**19.06**	**.4512**	**.4716**	**.4898**	**.4680**	**9.620**
Stddev	.12	.0006	.0011	.0017	.0015	.099
%RSD	.6155	.1387	.2314	.3515	.3279	1.033
#1	18.93	.4513	.4726	.4912	.4682	9.735
#2	19.07	.4505	.4704	.4879	.4664	9.556
#3	19.17	.4517	.4719	.4903	.4695	9.570
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 00033 Acquired: 9/14/2011 4:40:07 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**18.91**	**18.32**	**.4682**	**.4672**	**14.90**	**.4766**
Stddev	.11	.07	.0017	.0009	.12	.0014
%RSD	.5773	.3841	.3620	.1935	.7916	.2905
#1	19.03	18.35	.4692	.4670	14.93	.4778
#2	18.83	18.24	.4662	.4664	14.77	.4769
#3	18.87	18.37	.4691	.4682	14.99	.4751
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.520**	**2.318**	**4.610**	**2.338**	**.4631**	**.4675**
Stddev	.005	.002	.009	.006	.0016	.0009
%RSD	.1054	.1052	.1985	.2419	.3392	.1948
#1	4.525	2.321	4.607	2.344	.4644	.4684
#2	4.516	2.316	4.603	2.336	.4614	.4674
#3	4.519	2.319	4.621	2.334	.4636	.4666
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV 00033 Acquired: 9/14/2011 4:40:07 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2101.9	22406.	306.14	737.82
Stddev	7.3	91.	.58	3.56
%RSD	.34864	.40711	.19072	.48213
#1	2093.6	22322.	306.78	738.06
#2	2107.3	22503.	306.00	741.25
#3	2104.9	22394.	305.64	734.15

Sample Name: ICB_CCB Acquired: 9/14/2011 4:48:11 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	B_2089	Ba4554	Be3130
Line	328.068 {103}	309.271 {109}	189.042 {478}	208.959 {461}	455.403 { 74}	313.042 {108}
Units	mg/l	ppm	mg/l	ppm	ppm	mg/l
Avg	**.0001**	**-.0820**	**.0029**	**.0037**	**.0019**	**.00038**
Stddev	.0002	.2051	.0031	.0005	.0006	.00075
%RSD	179.2	250.3	105.5	13.62	33.44	198.98
#1	.0002	-.2289	.0048	.0039	.0025	-.00047
#2	-.0001	-.1694	-.0006	.0040	.0021	.00064
#3	.0001	.1524	.0046	.0031	.0012	.00096
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Ca3158	Cd2265	Co2286	Cr2677	Cu3273	Fe2599
Line	315.887 {107}	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.0861**	**.0000**	**.0001**	**-.0001**	**.0015**	**-.0019**
Stddev	.1018	.0000	.0001	.0002	.0002	.0507
%RSD	118.2	183.7	134.6	177.5	10.10	2709.
#1	.1294	.0001	.0000	-.0002	.0016	.0541
#2	-.0302	.0000	.0001	.0001	.0013	-.0446
#3	.1592	.0000	.0002	-.0003	.0016	-.0151
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 9/14/2011 4:48:11 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	K_7664	Mg2790	Mn2576	Mo2020	Na5895	Ni2316
Line	766.490 { 44}	279.079 {121}	257.610 {131}	202.030 {467}	589.592 { 57}	231.604 {446}
Units	mg/l	mg/l	mg/l	ppm	ppm	mg/l
Avg	**.3120**	**.0070**	**.0000**	**.0002**	**-.2255**	**.0005**
Stddev	.1058	.0013	.0001	.0002	.0334	.0004
%RSD	33.90	18.78	176.8	76.39	14.81	69.48
#1	.3073	.0055	.0000	.0002	-.1920	.0002
#2	.2086	.0077	.0000	.0004	-.2588	.0004
#3	.4200	.0077	.0001	.0001	-.2256	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Pb2203	Sb2068	Se1960	Tl1908	V_2924	Zn2138
Line	220.353 {453}	206.833 {463}	196.090 {472}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0032**	**.0010**	**-.0032**	**.0038**	**.0001**	**-.0001**
Stddev	.0031	.0026	.0009	.0005	.0002	.0002
%RSD	96.50	266.8	27.01	13.93	175.2	124.5
#1	.0054	.0031	-.0022	.0033	-.0001	-.0002
#2	.0045	-.0019	-.0039	.0043	.0004	.0001
#3	-.0003	.0017	-.0034	.0039	.0001	-.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 9/14/2011 4:48:11 Type: QC
Method: 6010-2007Sept2011A Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2286.4	22780.	296.16	719.91
Stddev	9.8	95.	14.38	28.14
%RSD	.42983	.41730	4.8542	3.9088
#1	2280.6	22754.	279.73	688.07
#2	2297.7	22886.	306.40	741.45
#3	2280.8	22701.	302.36	730.21

Sample Name: Blank Acquired: 9/14/2011 7:17:44 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0711**	**.8833**	**.0000**	**.0041**	**.00040**	**.0000**	**.0002**	**.0001**
Stddev	.0065	1.292	.000	.0030	.00849	.001	.0000	.0001
%RSD	9.175	146.3	74.53	72.45	2139.9	4378.	27.16	108.4
#1	-.0738	-.0875	.0000	.0011	-.00368	-.0011	.0002	.0001
#2	-.0636	2.350	.0000	.0041	.01016	.0011	.0001	.0000
#3	-.0758	.3875	-.0001	.0070	-.00529	.0000	.0001	.0002

Elem	Cr2677	Cu3273	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**-.0023**	**.0001**	**.0000**	**.0002**	**.0000**	**.0020**	**.0009**
Stddev	.000	.0002	.0000	.000	.0000	.0000	.0007	.0003
%RSD	1411.	8.301	46.63	215.9	7.473	82.05	34.56	30.77
#1	.0001	-.0026	.0000	.0000	.0002	.0000	.0026	.0010
#2	.0000	-.0022	.0000	.0000	.0002	.0000	.0012	.0012
#3	-.0001	-.0023	.0001	-.0001	.0002	.0001	.0023	.0006

Elem	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**.0000**	**.0001**	**-.0004**	**-.0002**	**.0006**
Stddev	.0000	.0000	.0000	.0002	.0001	.0000
%RSD	1178.	87.12	55.79	42.60	71.59	5.175
#1	.0000	.0001	.0001	-.0006	-.0002	.0007
#2	.0000	.0000	.0000	-.0003	-.0003	.0007
#3	.0000	.0000	.0000	-.0004	.0000	.0006

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2295.8**	**22250.**	**299.01**	**761.20**
Stddev	4.9	37.	3.61	5.35
%RSD	.21267	.16739	1.2075	.70335
#1	2293.7	22207.	299.04	758.22
#2	2301.4	22275.	295.39	758.00
#3	2292.3	22268.	302.61	767.38

Sample Name: CCV Acquired: 9/14/2011 12:09:51 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.9459**	**9.589**	**4.790**	**2.579**	**.09567**	**19.58**
Stddev	.0180	.137	.011	.043	.00013	.08
%RSD	1.898	1.425	.2197	1.681	.13818	.3886
#1	.9560	9.587	4.778	2.628	.09575	19.66
#2	.9252	9.453	4.797	2.561	.09552	19.52
#3	.9566	9.726	4.796	2.547	.09575	19.54
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.4595**	**.4809**	**.4928**	**.4791**	**9.278**	**18.67**
Stddev	.0003	.0001	.0022	.0026	.086	.08
%RSD	.0597	.0289	.4434	.5445	.9235	.4437
#1	.4593	.4809	.4952	.4818	9.208	18.74
#2	.4595	.4808	.4911	.4766	9.253	18.58
#3	.4598	.4810	.4920	.4789	9.373	18.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 12:09:51 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.4796**	**.4764**	**.4817**	**4.605**	**2.361**	**4.667**
Stddev	.0021	.0005	.0010	.005	.002	.006
%RSD	.4430	.0951	.2178	.1063	.0985	.1256
#1	.4818	.4760	.4829	4.604	2.358	4.663
#2	.4776	.4769	.4815	4.610	2.363	4.665
#3	.4795	.4762	.4808	4.600	2.361	4.674
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**2.415**	**2.377**	**.4700**	**.4753**
Stddev	.003	.004	.0030	.0001
%RSD	.1407	.1499	.6299	.0175
#1	2.411	2.377	.4728	.4752
#2	2.417	2.381	.4669	.4754
#3	2.416	2.374	.4704	.4753
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: CCV Acquired: 9/14/2011 12:09:51 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2065.7	22172.	303.41	703.94
Stddev	3.7	51.	5.58	9.84
%RSD	.17798	.22918	1.8394	1.3985
#1	2062.1	22118.	300.19	692.61
#2	2065.5	22219.	309.86	710.47
#3	2069.5	22180.	300.19	708.72

Sample Name: CCV Acquired: 9/14/2011 13:07:15 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.9847**	**9.571**	**4.888**	**2.454**	**.09732**	**19.78**
Stddev	.0056	.390	.004	.031	.00095	.47
%RSD	.5707	4.073	.0719	1.247	.97485	2.379
#1	.9860	9.253	4.884	2.420	.09762	19.35
#2	.9786	9.454	4.889	2.479	.09626	20.29
#3	.9896	10.01	4.891	2.462	.09809	19.72
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.4935**	**.4979**	**.4954**	**.4857**	**9.660**	**19.58**
Stddev	.0009	.0002	.0007	.0006	.084	.02
%RSD	.1806	.0409	.1436	.1154	.8693	.1130
#1	.4935	.4981	.4962	.4862	9.619	19.57
#2	.4926	.4977	.4952	.4859	9.757	19.57
#3	.4944	.4980	.4948	.4851	9.605	19.61
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 13:07:15 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.4927**	**.4901**	**.4820**	**4.793**	**2.419**	**4.880**
Stddev	.0002	.0003	.0009	.003	.004	.007
%RSD	.0322	.0573	.1792	.0648	.1634	.1508
#1	.4929	.4898	.4824	4.792	2.422	4.872
#2	.4928	.4903	.4810	4.791	2.414	4.886
#3	.4926	.4903	.4825	4.797	2.420	4.883
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**2.492**	**2.441**	**.4881**	**.4877**
Stddev	.002	.007	.0003	.0001
%RSD	.0638	.3041	.0571	.0281
#1	2.491	2.450	.4884	.4876
#2	2.491	2.436	.4881	.4878
#3	2.494	2.438	.4879	.4878
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: CCV Acquired: 9/14/2011 13:07:15 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2091.0	21696.	294.21	739.17
Stddev	4.8	42.	1.96	8.64
%RSD	.23140	.19527	.66752	1.1687
#1	2085.5	21650.	293.72	748.90
#2	2094.7	21733.	296.38	732.41
#3	2092.7	21705.	292.54	736.20

Sample Name: CalibStd1 00020 Acquired: 9/14/2011 7:24:31 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.653**	**8.238**	**.0081**	**.3684**	**.03396**	**.0224**	**.0161**	**.0170**
Stddev	.037	.379	.0001	.0023	.00916	.0011	.0002	.0001
%RSD	1.022	4.600	.8242	.6378	26.972	5.021	.9708	.6325
#1	3.688	8.450	.0081	.3697	.03957	.0237	.0163	.0171
#2	3.614	8.463	.0080	.3657	.02339	.0216	.0160	.0171
#3	3.659	7.800	.0080	.3698	.03891	.0220	.0161	.0169

Elem	Cr2677	Cu3273	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0225**	**.0164**	**.0006**	**.0708**	**.1432**	**.0069**	**.0535**	**.1477**
Stddev	.0001	.0002	.0000	.0001	.0005	.0000	.0002	.0007
%RSD	.5768	.9820	2.139	.0922	.3520	.3868	.3975	.4910
#1	.0226	.0162	.0006	.0709	.1437	.0069	.0538	.1485
#2	.0225	.0166	.0005	.0708	.1432	.0069	.0534	.1471
#3	.0223	.0164	.0006	.0709	.1427	.0070	.0534	.1475

Elem	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0050**	**.0064**	**.0138**	**.0314**	**.0372**	**.0223**
Stddev	.0000	.0000	.0001	.0001	.0002	.0001
%RSD	.5054	.5937	.7924	.3994	.4893	.6054
#1	.0050	.0064	.0140	.0313	.0374	.0224
#2	.0050	.0064	.0138	.0315	.0373	.0223
#3	.0050	.0064	.0138	.0313	.0370	.0222

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2256.9**	**22264.**	**295.99**	**763.87**
Stddev	4.7	91.	3.10	6.62
%RSD	.20711	.41013	1.0487	.86671
#1	2251.6	22172.	293.14	762.52
#2	2258.7	22266.	299.30	771.06
#3	2260.4	22355.	295.54	758.02

Sample Name: CalibStd-2 00022 Acquired: 9/14/2011 7:31:20 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**17.88**	**32.88**	**.0407**	**1.900**	**.16894**	**.1099**	**.0788**	**.0840**
Stddev	.25	.77	.0001	.004	.00389	.0027	.0002	.0002
%RSD	1.408	2.353	.1682	.1896	2.3021	2.436	.3151	.2484
#1	17.90	32.04	.0407	1.897	.16585	.1073	.0786	.0837
#2	17.62	33.56	.0408	1.904	.16767	.1126	.0790	.0841
#3	18.12	33.03	.0407	1.901	.17331	.1097	.0789	.0840

Elem	Cr2677	Cu3273	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1109**	**.0876**	**.0027**	**.3454**	**.6955**	**.0344**	**.2599**	**.7457**
Stddev	.0001	.0002	.0000	.0004	.0014	.0000	.0005	.0019
%RSD	.1017	.1820	1.739	.1277	.1989	.0510	.2100	.2486
#1	.1109	.0875	.0027	.3452	.6942	.0344	.2600	.7442
#2	.1110	.0876	.0028	.3459	.6970	.0344	.2603	.7478
#3	.1108	.0878	.0027	.3451	.6952	.0344	.2593	.7452

Elem	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0248**	**.0323**	**.0677**	**.1593**	**.1855**	**.0909**
Stddev	.0000	.0001	.0001	.0011	.0006	.0002
%RSD	.1360	.4194	.2029	.6654	.3321	.1850
#1	.0248	.0322	.0676	.1585	.1848	.0908
#2	.0248	.0325	.0678	.1605	.1859	.0910
#3	.0247	.0322	.0677	.1588	.1858	.0908

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2195.8**	**22347.**	**301.92**	**748.02**
Stddev	4.2	35.	3.85	4.44
%RSD	.19010	.15750	1.2747	.59316
#1	2198.4	22363.	301.47	746.48
#2	2191.0	22306.	305.97	753.03
#3	2198.1	22371.	298.31	744.57

Sample Name: CalibStd-3 00020 Acquired: 9/14/2011 7:37:53 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**85.96**	**160.7**	**.2011**	**9.087**	**.84112**	**.5330**	**.3817**	**.4022**
Stddev	.48	4.9	.0006	.142	.01023	.0051	.0009	.0013
%RSD	.5565	3.051	.3019	1.567	1.2158	.9640	.2229	.3140
#1	86.28	155.7	.2015	9.141	.85291	.5348	.3824	.4031
#2	85.41	165.5	.2015	9.194	.83471	.5370	.3820	.4027
#3	86.18	161.1	.2004	8.925	.83574	.5272	.3808	.4008

Elem	Cr2677	Cu3273	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5382**	**.4401**	**.0136**	**1.697**	**3.398**	**.1686**	**1.282**	**3.709**
Stddev	.0006	.0008	.0003	.003	.002	.0005	.005	.014
%RSD	.1189	.1787	1.917	.1617	.0713	.2853	.4068	.3760
#1	.5374	.4395	.0134	1.697	3.398	.1688	1.286	3.720
#2	.5386	.4410	.0139	1.699	3.401	.1689	1.284	3.713
#3	.5385	.4398	.0136	1.694	3.396	.1680	1.276	3.693

Elem	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1220**	**.1592**	**.3253**	**.7814**	**.9217**	**.4394**
Stddev	.0006	.0008	.0011	.0007	.0022	.0012
%RSD	.4572	.5114	.3456	.0944	.2341	.2813
#1	.1223	.1598	.3261	.7821	.9195	.4400
#2	.1224	.1595	.3258	.7815	.9238	.4402
#3	.1214	.1583	.3240	.7806	.9217	.4380

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2029.7**	**21493.**	**299.01**	**763.40**
Stddev	5.0	47.	1.52	11.71
%RSD	.24464	.21647	.50805	1.5340
#1	2032.9	21537.	298.08	753.40
#2	2024.0	21445.	300.76	760.52
#3	2032.2	21496.	298.18	776.28

Sample Name: CalibStd-4 00020 Acquired: 9/14/2011 7:44:23 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**175.6**	**314.5**	**.4042**	**18.44**	**1.6850**	**1.062**	**.7543**	**.7894**
Stddev	5.7	4.3	.0004	.55	.0483	.035	.0016	.0007
%RSD	3.220	1.365	.0951	2.984	2.8635	3.329	.2079	.0824
#1	181.7	310.6	.4045	19.05	1.7297	1.101	.7525	.7893
#2	170.5	319.1	.4038	17.98	1.6339	1.033	.7553	.7888
#3	174.6	313.7	.4044	18.28	1.6916	1.051	.7551	.7901

Elem	Cr2677	Cu3273	Fe2599	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.056**	**.8725**	**.0268**	**3.323**	**6.606**	**.3334**	**2.589**	**7.591**
Stddev	.004	.0022	.0003	.007	.017	.0005	.004	.010
%RSD	.3349	.2523	1.085	.1976	.2518	.1614	.1445	.1283
#1	1.053	.8716	.0266	3.318	6.593	.3329	2.592	7.598
#2	1.055	.8708	.0267	3.321	6.601	.3334	2.585	7.580
#3	1.060	.8750	.0271	3.331	6.625	.3340	2.590	7.594

Elem	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2452**	**.3191**	**.6390**	**1.563**	**1.818**	**.8764**
Stddev	.0004	.0004	.0010	.002	.002	.0016
%RSD	.1590	.1249	.1643	.1190	.1087	.1860
#1	.2453	.3192	.6386	1.561	1.816	.8774
#2	.2448	.3187	.6382	1.563	1.817	.8745
#3	.2456	.3195	.6402	1.564	1.820	.8772

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1937.1**	**21170.**	**290.11**	**739.23**
Stddev	1.3	46.	9.05	22.62
%RSD	.06605	.21580	3.1212	3.0596
#1	1936.4	21222.	280.30	714.14
#2	1938.6	21148.	298.16	758.05
#3	1936.3	21139.	291.87	745.51

Sample Name: ICV 200.7 00015 Acquired: 9/14/2011 7:50:54 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.5151**	**5.093**	**2.483**	**.2453**	**.24932**	**5.060**
Stddev	.0049	.080	.006	.0028	.00249	.130
%RSD	.9588	1.576	.2368	1.146	1.0006	2.569
#1	.5094	5.063	2.489	.2476	.24681	4.951
#2	.5176	5.032	2.481	.2461	.25180	5.204
#3	.5183	5.184	2.478	.2421	.24935	5.026
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.2527**	**.5143**	**1.010**	**1.009**	**4.880**	**5.043**
Stddev	.0004	.0006	.002	.000	.057	.013
%RSD	.1678	.1227	.2069	.0165	1.161	.2559
#1	.2531	.5146	1.012	1.009	4.935	5.057
#2	.2527	.5147	1.010	1.009	4.822	5.039
#3	.2523	.5135	1.008	1.009	4.882	5.032
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICV 200.7 00015 Acquired: 9/14/2011 7:50:54 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**1.029**	**.5013**	**.9943**	**.9792**	**2.466**	**4.958**
Stddev	.001	.0010	.0039	.0049	.010	.003
%RSD	.1280	.1896	.3909	.5045	.4014	.0531
#1	1.030	.5024	.9958	.9738	2.477	4.961
#2	1.031	.5007	.9973	.9835	2.461	4.956
#3	1.028	.5007	.9899	.9801	2.459	4.957
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**2.500**	**4.953**	**.4979**	**.7474**
Stddev	.003	.011	.0003	.0024
%RSD	.1204	.2215	.0552	.3240
#1	2.502	4.961	.4982	.7495
#2	2.500	4.957	.4978	.7480
#3	2.496	4.940	.4976	.7448
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ICV 200.7 00015 Acquired: 9/14/2011 7:50:54 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2202.4	22521.	304.38	763.83
Stddev	4.2	46.	3.12	6.45
%RSD	.19296	.20604	1.0240	.84404
#1	2204.1	22501.	307.97	769.99
#2	2197.5	22489.	302.34	757.13
#3	2205.5	22574.	302.84	764.37

Sample Name: ICB_CCB Acquired: 9/14/2011 7:59:56 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0001**	**-.0226**	**.0022**	**-.0003**	**.00032**	**-.0323**
Stddev	.0002	.0549	.0008	.0007	.00080	.0746
%RSD	214.0	242.8	37.44	233.9	247.73	230.8
#1	.0001	.0318	.0021	-.0010	-.00001	-.0667
#2	-.0004	-.0216	.0030	.0005	.00123	.0533
#3	.0000	-.0780	.0014	-.0004	-.00025	-.0835
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0001**	**.0000**	**.0001**	**-.0001**	**-.0504**	**.0020**
Stddev	.0001	.0001	.0001	.0001	.0385	.0004
%RSD	74.99	440.5	146.4	50.65	76.43	18.09
#1	.0000	.0001	.0001	-.0001	-.0904	.0016
#2	-.0001	-.0001	.0001	-.0001	-.0471	.0023
#3	.0000	.0001	.0000	-.0002	-.0136	.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 9/14/2011 7:59:56 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0000**	**.0002**	**.0002**	**.0013**	**-.0021**	**.0015**
Stddev	.000	.0001	.0002	.0014	.0009	.0017
%RSD	135.4	55.87	106.9	105.2	45.03	109.3
#1	-.0001	.0003	.0000	-.0002	-.0022	.0035
#2	.0000	.0001	.0003	.0026	-.0029	.0005
#3	.0000	.0001	.0003	.0015	-.0011	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0004**	**.0001**	**-.0002**	**-.0004**
Stddev	.0004	.0017	.0001	.0001
%RSD	84.64	1667.	76.77	32.78
#1	-.0007	-.0012	-.0001	-.0005
#2	-.0005	.0021	-.0001	-.0003
#3	.0000	-.0005	-.0003	-.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Sample Name: ICB_CCB Acquired: 9/14/2011 7:59:56 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2293.6	22357.	301.50	757.42
Stddev	3.1	19.	2.75	2.01
%RSD	.13410	.08572	.91219	.26531
#1	2297.1	22373.	299.85	758.02
#2	2292.5	22363.	304.68	759.05
#3	2291.3	22336.	299.97	755.17

Sample Name: CRI 00020 Acquired: 9/14/2011 8:09:21 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0209**	**1.298**	**.0630**	**.0098**	**.00472**	**1.177**
Stddev	.0003	.097	.0017	.0008	.00090	.032
%RSD	1.370	7.469	2.724	8.302	19.087	2.722
#1	.0206	1.408	.0625	.0092	.00441	1.176
#2	.0209	1.226	.0649	.0096	.00573	1.146
#3	.0212	1.259	.0616	.0108	.00401	1.210
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0103**	**.0107**	**.0261**	**.0216**	**.1115**	**1.173**
Stddev	.0002	.0002	.0001	.0005	.0605	.003
%RSD	2.283	2.267	.4215	2.266	54.22	.2547
#1	.0103	.0105	.0261	.0211	.0419	1.171
#2	.0106	.0105	.0259	.0216	.1419	1.176
#3	.0101	.0110	.0261	.0221	.1509	1.171
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 00020 Acquired: 9/14/2011 8:09:21 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0216**	**.0250**	**.0204**	**.0316**	**.0630**	**.1046**
Stddev	.0001	.0001	.0005	.0014	.0016	.0030
%RSD	.3412	.2438	2.446	4.375	2.481	2.874
#1	.0216	.0251	.0201	.0327	.0648	.1027
#2	.0217	.0249	.0202	.0300	.0624	.1081
#3	.0216	.0250	.0210	.0321	.0618	.1030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.1029**	**.1013**	**.0243**	**.0499**
Stddev	.0003	.0006	.0004	.0004
%RSD	.2908	.5969	1.507	.7436
#1	.1026	.1009	.0247	.0497
#2	.1031	.1020	.0241	.0503
#3	.1030	.1011	.0240	.0497
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: CRI 00020 Acquired: 9/14/2011 8:09:21 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2282.0	22516.	297.72	771.83
Stddev	2.1	45.	2.82	5.42
%RSD	.09005	.19931	.94820	.70186
#1	2284.3	22533.	300.63	777.68
#2	2280.5	22466.	297.55	770.83
#3	2281.2	22551.	295.00	766.98

Sample Name: HIGH STD 00020 Acquired: 9/14/2011 8:18:41 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**3.896**	**39.72**	**19.93**	**9.737**	**.38905**	**77.59**
Stddev	.050	.09	.01	.062	.00703	.66
%RSD	1.280	.2242	.0622	.6347	1.8078	.8522
#1	3.841	39.67	19.94	9.695	.38179	77.26
#2	3.939	39.68	19.91	9.707	.39583	77.15
#3	3.907	39.83	19.93	9.808	.38951	78.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**1.986**	**1.975**	**1.978**	**1.995**	**39.95**	**79.64**
Stddev	.009	.005	.004	.002	.51	.07
%RSD	.4624	.2482	.1810	.1215	1.283	.0836
#1	1.976	1.969	1.977	1.994	39.63	79.65
#2	1.987	1.975	1.975	1.994	39.68	79.56
#3	1.995	1.979	1.982	1.998	40.54	79.70
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: HIGH STD 00020 Acquired: 9/14/2011 8:18:41 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**1.983**	**1.986**	**1.995**	**20.15**	**9.978**	**19.99**
Stddev	.002	.003	.001	.04	.016	.05
%RSD	.0911	.1575	.0589	.1822	.1643	.2715
#1	1.983	1.984	1.995	20.12	9.962	19.92
#2	1.981	1.985	1.994	20.16	9.976	20.01
#3	1.985	1.990	1.996	20.19	9.995	20.02
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**9.863**	**9.937**	**1.993**	**1.984**
Stddev	.015	.037	.004	.004
%RSD	.1494	.3717	.2042	.1932
#1	9.851	9.914	1.992	1.980
#2	9.857	9.917	1.989	1.983
#3	9.879	9.980	1.997	1.988
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: HIGH STD 00020 Acquired: 9/14/2011 8:18:41 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1947.2	21204.	300.08	768.52
Stddev	4.0	77.	4.24	4.51
%RSD	.20783	.36190	1.4139	.58708
#1	1947.7	21264.	304.87	767.85
#2	1951.0	21231.	296.79	773.33
#3	1943.0	21118.	298.58	764.38

Sample Name: ICSA 00036 Acquired: 9/14/2011 8:27:39 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0026**	**488.4**	**-.0009**	**.0019**	**.00051**	**474.9**
Stddev	.0004	1.3	.0037	.0029	.00071	6.6
%RSD	14.29	.2738	403.8	149.5	137.58	1.399
#1	-.0028	486.9	.0000	.0001	.00123	467.9
#2	-.0022	488.9	.0022	.0004	.00049	475.6
#3	-.0029	489.4	-.0049	.0052	-.00018	481.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0069**	**.0002**	**.0021**	**.0112**	**200.3**	**507.5**
Stddev	.0003	.0001	.0004	.0003	.8	2.9
%RSD	4.403	63.87	20.65	2.625	.3899	.5737
#1	-.0066	.0003	.0020	.0109	201.1	507.6
#2	-.0068	.0001	.0026	.0115	199.6	510.4
#3	-.0072	.0003	.0018	.0111	200.1	504.5
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA 00036 Acquired: 9/14/2011 8:27:39 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0135**	**-.0001**	**.0025**	**-.0024**	**-.0155**	**.0188**
Stddev	.0002	.0002	.0004	.0041	.0019	.0057
%RSD	1.176	137.9	17.19	171.7	12.32	30.47
#1	.0137	.0000	.0027	-.0059	-.0168	.0245
#2	.0135	-.0004	.0020	.0021	-.0164	.0190
#3	.0134	-.0001	.0027	-.0033	-.0133	.0131
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0021**	**.0029**	**.0029**	**-.0187**
Stddev	.0007	.0026	.0003	.0002
%RSD	32.99	89.16	10.16	.9184
#1	.0029	.0021	.0029	-.0188
#2	.0015	.0057	.0031	-.0185
#3	.0020	.0008	.0026	-.0188
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Sample Name: ICSA 00036 Acquired: 9/14/2011 8:27:39 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1746.2	19596.	285.19	733.64
Stddev	5.8	95.	2.51	10.30
%RSD	.33089	.48562	.88010	1.4041
#1	1739.8	19491.	286.53	744.87
#2	1747.7	19620.	286.74	731.41
#3	1751.1	19677.	282.29	724.63

Sample Name: ICSAB 00028 Acquired: 9/14/2011 8:37:09 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**3.142**	**489.3**	**10.44**	**3.044**	**1.0170**	**483.6**
Stddev	.044	1.7	.00	.013	.0204	4.5
%RSD	1.386	.3509	.0370	.4378	2.0087	.9294
#1	3.095	489.5	10.44	3.028	1.0005	478.6
#2	3.181	490.9	10.44	3.051	1.0399	487.3
#3	3.151	487.5	10.44	3.052	1.0107	485.0
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**2.859**	**2.820**	**2.890**	**3.138**	**200.9**	**499.4**
Stddev	.009	.003	.010	.008	1.0	1.6
%RSD	.3123	.1112	.3331	.2684	.5091	.3179
#1	2.861	2.820	2.893	3.132	200.5	498.3
#2	2.866	2.824	2.898	3.147	202.0	498.7
#3	2.849	2.817	2.880	3.134	200.1	501.2
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB 00028 Acquired: 9/14/2011 8:37:09 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**1.953**	**2.912**	**2.993**	**10.15**	**10.23**	**5.167**
Stddev	.005	.008	.009	.03	.01	.002
%RSD	.2375	.2647	.2991	.2618	.0754	.0296
#1	1.950	2.915	2.984	10.14	10.22	5.165
#2	1.958	2.917	3.001	10.17	10.23	5.168
#3	1.950	2.903	2.994	10.12	10.24	5.168
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0058**	**9.698**	**2.970**	**3.043**
Stddev	.0007	.028	.008	.003
%RSD	11.78	.2863	.2809	.0832
#1	-.0058	9.690	2.969	3.044
#2	-.0065	9.729	2.980	3.046
#3	-.0051	9.675	2.963	3.041
Check ?	None	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: ICSAB 00028 Acquired: 9/14/2011 8:37:09 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1684.8**	**19457.**	**278.78**	**720.26**
Stddev	6.6	54.	3.75	3.87
%RSD	.39369	.27795	1.3461	.53758
#1	1689.0	19457.	282.84	724.58
#2	1677.2	19403.	275.44	717.10
#3	1688.3	19511.	278.05	719.12

Sample Name: CCV Acquired: 9/14/2011 11:12:26 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.9793**	**10.01**	**4.879**	**2.483**	**.09584**	**19.77**
Stddev	.0079	.31	.014	.033	.00130	.17
%RSD	.8081	3.079	.2839	1.313	1.3566	.8704
#1	.9861	10.26	4.894	2.519	.09733	19.86
#2	.9812	10.11	4.866	2.455	.09500	19.57
#3	.9706	9.666	4.878	2.476	.09518	19.88
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.4872**	**.4942**	**.4946**	**.4861**	**9.582**	**19.42**
Stddev	.0003	.0008	.0004	.0008	.078	.01
%RSD	.0641	.1601	.0831	.1622	.8171	.0588
#1	.4871	.4950	.4950	.4857	9.667	19.42
#2	.4869	.4934	.4946	.4870	9.567	19.44
#3	.4875	.4942	.4942	.4856	9.513	19.42
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/14/2011 11:12:26 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.4892**	**.4862**	**.4831**	**4.791**	**2.413**	**4.882**
Stddev	.0005	.0015	.0005	.008	.004	.006
%RSD	.1013	.3104	.1026	.1698	.1674	.1319
#1	.4888	.4871	.4831	4.784	2.417	4.883
#2	.4897	.4845	.4825	4.790	2.409	4.876
#3	.4890	.4871	.4835	4.800	2.415	4.888
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**2.473**	**2.441**	**.4835**	**.4843**
Stddev	.003	.008	.0006	.0008
%RSD	.1004	.3108	.1246	.1676
#1	2.474	2.436	.4829	.4851
#2	2.471	2.436	.4840	.4835
#3	2.475	2.449	.4838	.4843
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Sample Name: CCV Acquired: 9/14/2011 11:12:26 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2134.3	22382.	303.41	754.95
Stddev	1.0	21.	2.53	6.20
%RSD	.04912	.09201	.83460	.82155
#1	2133.2	22360.	300.92	750.01
#2	2135.1	22384.	303.33	761.91
#3	2134.8	22401.	305.98	752.93

Sample Name: CCB Acquired: 9/14/2011 11:18:56 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0004**	**-.1941**	**.0015**	**.0002**	**-.00066**	**-.0300**
Stddev	.0004	.1138	.0021	.0008	.00075	.1356
%RSD	105.3	58.64	144.7	400.4	113.79	452.3
#1	.0000	-.0655	-.0010	.0008	.00016	-.0928
#2	-.0004	-.2348	.0030	-.0006	-.00131	-.1229
#3	-.0008	-.2819	.0024	.0004	-.00081	.1257
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0001**	**.0001**	**-.0002**	**.0005**	**-.0791**	**.0017**
Stddev	.0002	.0000	.0001	.0002	.0807	.0016
%RSD	204.1	30.04	27.13	44.59	102.0	89.98
#1	-.0001	.0001	-.0002	.0007	-.1445	-.0001
#2	-.0003	.0001	-.0001	.0003	.0111	.0026
#3	.0001	.0001	-.0002	.0007	-.1039	.0027
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 11:18:56 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0000**	**.0003**	**.0000**	**.0027**	**.0003**	**.0013**
Stddev	.0000	.0001	.0002	.0006	.0010	.0021
%RSD	199.3	39.25	1173.	20.90	342.5	164.1
#1	.0001	.0002	.0001	.0033	-.0001	.0034
#2	.0000	.0004	-.0002	.0021	.0014	-.0008
#3	.0000	.0002	.0001	.0027	-.0005	.0013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0004**	**.0010**	**-.0004**	**.0014**
Stddev	.0006	.0007	.0002	.0004
%RSD	156.7	71.67	39.31	30.82
#1	.0002	.0017	-.0006	.0019
#2	-.0003	.0004	-.0003	.0010
#3	-.0011	.0008	-.0003	.0014
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Sample Name: CCB Acquired: 9/14/2011 11:18:56 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2277.9	22047.	291.67	741.00
Stddev	5.3	30.	6.46	10.65
%RSD	.23093	.13695	2.2152	1.4376
#1	2273.9	22017.	285.10	730.86
#2	2275.9	22045.	291.89	740.04
#3	2283.8	22077.	298.02	752.10

Sample Name: MB 580-95113/21-A Acquired: 9/14/2011 11:28:23 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0000**	**.1133**	**.0008**	**-.0004**	**.00024**	**-.0191**
Stddev	.0004	.0539	.0024	.0005	.00087	.0497
%RSD	3640.	47.60	295.1	129.0	354.63	259.7
#1	-.0003	.1744	-.0004	.0002	.00124	.0371
#2	-.0001	.0725	.0036	-.0008	-.00017	-.0373
#3	.0004	.0929	-.0007	-.0005	-.00033	-.0572

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0001**	**.0000**	**-.0002**	**.0002**	**-.0702**	**.0006**
Stddev	.0001	.0002	.0001	.0003	.0489	.0016
%RSD	114.4	368.6	63.16	204.5	69.73	258.9
#1	-.0001	.0002	-.0002	.0005	-.0735	-.0012
#2	.0000	.0000	-.0003	.0001	-.0197	.0011
#3	-.0002	-.0001	-.0001	-.0002	-.1174	.0020

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0000**	**.0002**	**.0004**	**.0008**	**.0004**	**.0001**
Stddev	.000	.0001	.0001	.0007	.0010	.0009
%RSD	48.82	95.90	23.60	92.24	298.8	1579.
#1	.0000	.0000	.0003	.0003	.0001	-.0001
#2	.0000	.0002	.0004	.0016	.0015	-.0008
#3	.0000	.0003	.0005	.0005	-.0005	.0011

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0001**	**.0005**	**-.0001**	**.0004**
Stddev	.0001	.0010	.0001	.0002
%RSD	42.20	203.3	69.21	46.46
#1	.0001	.0015	-.0001	.0002
#2	.0002	.0006	-.0001	.0006
#3	.0001	-.0005	-.0002	.0003

Sample Name: MB 580-95113/21-A Acquired: 9/14/2011 11:28:23 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2279.8	22112.	299.04	754.26
Stddev	5.1	31.	3.40	9.33
%RSD	.22331	.13830	1.1360	1.2375
#1	2274.9	22112.	302.87	761.18
#2	2279.4	22143.	297.88	743.64
#3	2285.1	22082.	296.38	757.96

Sample Name: 580-28356-A-3-B Acquired: 9/14/2011 11:35:21 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0004**	**3.889**	**.0016**	**.0070**	**.00041**	**.0962**
Stddev	.0001	.093	.0024	.0011	.00029	.1129
%RSD	26.48	2.401	147.2	15.09	72.035	117.3
#1	-.0005	3.846	.0044	.0065	.00074	.2224
#2	-.0003	3.825	.0002	.0063	.00033	.0047
#3	-.0005	3.996	.0003	.0082	.00016	.0616

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0004**	**.0009**	**.0045**	**.0031**	**7.001**	**.5061**
Stddev	.0001	.0002	.0002	.0003	.101	.0036
%RSD	27.32	18.66	4.546	9.732	1.443	.7204
#1	-.0006	.0010	.0047	.0029	7.054	.5043
#2	-.0004	.0009	.0043	.0031	6.884	.5037
#3	-.0003	.0007	.0044	.0035	7.065	.5103

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0348**	**.0003**	**.0024**	**.0024**	**.0016**	**.0010**
Stddev	.0001	.0002	.0001	.0007	.0026	.0012
%RSD	.1548	69.52	4.759	30.15	167.8	117.5
#1	.0348	.0001	.0023	.0025	.0045	.0023
#2	.0347	.0003	.0025	.0031	-.0007	-.0001
#3	.0348	.0005	.0025	.0016	.0010	.0009

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0003**	**.0016**	**.0204**	**.0135**
Stddev	.0001	.0012	.0002	.0001
%RSD	55.75	76.41	.8456	.6658
#1	-.0001	.0007	.0204	.0134
#2	-.0003	.0029	.0203	.0134
#3	-.0004	.0011	.0206	.0136

Sample Name: 580-28356-A-3-B Acquired: 9/14/2011 11:35:21 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2268.3**	**22278.**	**300.97**	**775.27**
Stddev	2.1	50.	16.33	33.25
%RSD	.09450	.22646	5.4264	4.2882
#1	2268.2	22245.	319.83	813.36
#2	2270.6	22336.	291.72	760.34
#3	2266.3	22253.	291.36	752.11

Sample Name: 580-28356-A-4-B Acquired: 9/14/2011 11:42:15 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0004**	**10.65**	**.0028**	**.0125**	**.00075**	**.4022**
Stddev	.0004	.27	.0006	.0020	.00162	.0580
%RSD	100.7	2.518	21.57	15.86	216.52	14.41
#1	-.0006	10.78	.0026	.0148	.00161	.4539
#2	-.0005	10.34	.0023	.0111	.00176	.3395
#3	.0001	10.83	.0035	.0116	-.00112	.4131

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0005**	**.0036**	**.0111**	**.0127**	**8.422**	**2.120**
Stddev	.0002	.0002	.0002	.0006	.038	.005
%RSD	33.46	4.582	1.822	4.603	.4487	.2264
#1	-.0004	.0036	.0108	.0133	8.457	2.124
#2	-.0007	.0034	.0111	.0121	8.382	2.115
#3	-.0004	.0037	.0112	.0127	8.427	2.120

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0746**	**.0001**	**.0113**	**.0040**	**.0007**	**-.0018**
Stddev	.0003	.0002	.0002	.0019	.0010	.0019
%RSD	.3516	169.0	1.366	47.06	129.0	101.1
#1	.0748	.0000	.0114	.0021	-.0003	-.0038
#2	.0743	.0003	.0115	.0040	.0016	-.0015
#3	.0747	.0001	.0112	.0059	.0010	-.0002

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**.0000**	**.0008**	**.0138**	**.0183**
Stddev	.0003	.0021	.0002	.0002
%RSD	2291.	272.6	1.341	1.169
#1	-.0002	.0022	.0139	.0183
#2	.0004	.0018	.0136	.0181
#3	-.0002	-.0016	.0137	.0186

Sample Name: 580-28356-A-4-B Acquired: 9/14/2011 11:42:15 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2242.9	22380.	291.37	745.99
Stddev	4.6	62.	9.51	16.11
%RSD	.20612	.27679	3.2635	2.1599
#1	2240.0	22309.	280.53	730.29
#2	2248.2	22410.	295.29	745.21
#3	2240.4	22422.	298.30	762.48

Sample Name: 580-28356-A-5-B Acquired: 9/14/2011 11:49:08 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0001**	**5.964**	**.0044**	**.0132**	**-.00039**	**.1199**
Stddev	.0004	.229	.0014	.0018	.00111	.0455
%RSD	420.6	3.847	31.15	13.67	284.37	37.92
#1	-.0002	6.035	.0053	.0123	.00082	.1005
#2	.0003	5.707	.0050	.0153	-.00136	.1718
#3	-.0004	6.149	.0028	.0120	-.00064	.0873

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0004**	**.0051**	**.0191**	**.0515**	**7.697**	**4.514**
Stddev	.0002	.0002	.0003	.0003	.093	.025
%RSD	42.39	3.945	1.479	.6252	1.213	.5462
#1	-.0005	.0052	.0191	.0517	7.734	4.494
#2	-.0002	.0049	.0194	.0517	7.591	4.542
#3	-.0005	.0052	.0188	.0512	7.766	4.506

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.1035**	**.0001**	**.0527**	**.0032**	**.0001**	**-.0008**
Stddev	.0006	.0002	.0003	.0019	.0015	.0008
%RSD	.5677	178.9	.4956	59.94	1550.	100.2
#1	.1031	.0001	.0528	.0041	.0014	-.0015
#2	.1042	-.0001	.0528	.0010	-.0015	.0000
#3	.1032	.0004	.0524	.0046	.0004	-.0008

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0006**	**-.0015**	**.0115**	**.0147**
Stddev	.0005	.0006	.0003	.0003
%RSD	76.00	42.16	2.557	2.263
#1	-.0002	-.0008	.0112	.0145
#2	-.0006	-.0021	.0115	.0146
#3	-.0011	-.0017	.0118	.0151

Sample Name: 580-28356-A-5-B Acquired: 9/14/2011 11:49:08 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2217.4	22226.	295.32	714.50
Stddev	7.0	103.	8.56	15.65
%RSD	.31600	.46257	2.8993	2.1900
#1	2221.6	22332.	285.51	696.46
#2	2209.3	22127.	299.15	722.79
#3	2221.3	22221.	301.30	724.27

Sample Name: 580-28356-A-7-A Acquired: 9/14/2011 11:56:02 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0002**	**6.743**	**.0201**	**.0091**	**-.00013**	**.2138**
Stddev	.0001	.242	.0025	.0023	.00043	.1335
%RSD	73.70	3.592	12.43	25.79	341.80	62.46
#1	.0000	6.530	.0183	.0074	-.00032	.2942
#2	-.0002	6.693	.0190	.0081	.00037	.0597
#3	-.0003	7.007	.0229	.0117	-.00043	.2877

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0003**	**.0057**	**.0148**	**.0775**	**7.232**	**1.972**
Stddev	.0001	.0002	.0003	.0010	.089	.014
%RSD	39.50	2.889	2.174	1.319	1.234	.7246
#1	-.0002	.0059	.0151	.0777	7.334	1.976
#2	-.0004	.0056	.0148	.0784	7.169	1.984
#3	-.0004	.0056	.0145	.0764	7.192	1.956

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.1087**	**.0012**	**.0144**	**.0077**	**-.0020**	**.0027**
Stddev	.0007	.0001	.0007	.0010	.0005	.0008
%RSD	.6501	12.33	4.723	13.39	25.06	28.67
#1	.1091	.0012	.0146	.0075	-.0015	.0020
#2	.1091	.0011	.0150	.0068	-.0025	.0024
#3	.1079	.0014	.0137	.0088	-.0020	.0035

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0005**	**.0007**	**.0146**	**.0217**
Stddev	.0003	.0015	.0004	.0001
%RSD	51.17	212.4	2.866	.5988
#1	-.0006	-.0003	.0146	.0219
#2	-.0002	.0000	.0151	.0217
#3	-.0008	.0024	.0142	.0216

Sample Name: 580-28356-A-7-A Acquired: 9/14/2011 11:56:02 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2218.9	22495.	298.12	717.98
Stddev	5.8	53.	16.66	40.54
%RSD	.26058	.23428	5.5867	5.6465
#1	2222.2	22490.	301.52	730.43
#2	2212.2	22445.	312.80	750.84
#3	2222.3	22550.	280.02	672.68

Sample Name: 580-28356-A-10-A Acquired: 9/14/2011 12:02:56 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0001**	**1.863**	**.0026**	**.0105**	**-.00049**	**.1673**
Stddev	.0001	.247	.0009	.0010	.00008	.1400
%RSD	152.4	13.25	35.57	9.111	16.314	83.71
#1	-.0002	1.907	.0016	.0109	-.00051	.0491
#2	-.0001	1.597	.0035	.0112	-.00040	.1308
#3	.0001	2.084	.0027	.0094	-.00055	.3219

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0004**	**.0011**	**.0047**	**.0126**	**5.260**	**.4307**
Stddev	.0002	.0001	.0003	.0003	.080	.0008
%RSD	44.36	7.108	5.926	2.120	1.517	.1942
#1	-.0002	.0011	.0050	.0124	5.172	.4299
#2	-.0005	.0010	.0046	.0125	5.279	.4307
#3	-.0003	.0011	.0044	.0129	5.328	.4316

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0298**	**.0005**	**.0028**	**.0029**	**.0007**	**-.0027**
Stddev	.0001	.0001	.0005	.0011	.0008	.0033
%RSD	.2439	22.33	19.89	36.64	110.2	122.8
#1	.0298	.0004	.0025	.0040	.0009	-.0032
#2	.0298	.0005	.0024	.0019	-.0002	.0008
#3	.0299	.0007	.0034	.0028	.0014	-.0057

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0003**	**.0003**	**.0143**	**.0037**
Stddev	.0003	.0017	.0003	.0002
%RSD	89.24	530.5	1.935	4.200
#1	-.0002	.0010	.0140	.0035
#2	-.0001	.0016	.0144	.0037
#3	-.0006	-.0016	.0145	.0038

Sample Name: 580-28356-A-10-A Acquired: 9/14/2011 12:02:56 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2246.8**	**22678.**	**316.67**	**751.78**
Stddev	2.2	29.	19.95	47.12
%RSD	.09701	.12583	6.2996	6.2681
#1	2248.4	22693.	339.69	805.90
#2	2247.7	22697.	304.39	719.88
#3	2244.3	22645.	305.93	729.55

Sample Name: CCB Acquired: 9/14/2011 12:18:50 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0007**	**-.0953**	**.0017**	**-.0007**	**-.00035**	**.0181**
Stddev	.0003	.0527	.0013	.0004	.00061	.1404
%RSD	38.24	55.30	78.55	51.17	175.67	777.3
#1	-.0008	-.0906	.0003	-.0009	.00029	-.1157
#2	-.0008	-.0451	.0020	-.0009	-.00093	.0058
#3	-.0004	-.1501	.0029	-.0003	-.00040	.1642
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0001**	**.0001**	**-.0003**	**.0009**	**-.0480**	**.0006**
Stddev	.0001	.0001	.0001	.0001	.0443	.0013
%RSD	179.8	47.45	35.71	8.411	92.24	220.6
#1	-.0001	.0001	-.0004	.0008	-.0937	-.0004
#2	.0001	.0002	-.0003	.0010	-.0054	.0002
#3	-.0002	.0001	-.0002	.0009	-.0448	.0021
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 12:18:50 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0000**	**.0001**	**.0004**	**.0005**	**.0005**	**-.0016**
Stddev	.000	.0001	.0005	.0027	.0027	.0009
%RSD	150.0	111.8	143.3	595.0	519.6	56.01
#1	.0000	.0002	.0008	.0026	.0036	-.0019
#2	-.0001	.0000	.0005	.0013	-.0009	-.0006
#3	.0000	.0002	-.0002	-.0026	-.0012	-.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0002**	**.0000**	**-.0001**	**.0003**
Stddev	.0007	.0005	.0001	.0003
%RSD	294.6	1348.	75.12	106.8
#1	-.0004	.0002	.0000	.0006
#2	.0005	-.0005	-.0001	.0000
#3	-.0008	.0005	-.0002	.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Sample Name: CCB Acquired: 9/14/2011 12:18:50 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2224.6	22800.	309.13	712.75
Stddev	7.2	51.	3.45	4.08
%RSD	.32256	.22420	1.1165	.57222
#1	2222.7	22760.	309.51	715.74
#2	2218.6	22784.	312.37	708.10
#3	2232.5	22858.	305.50	714.40

Sample Name: MB 580-95118/16-A Acquired: 9/14/2011 12:25:48 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0003**	**-.1496**	**.0024**	**.0010**	**.00006**	**.0453**
Stddev	.0004	.1198	.0005	.0006	.00061	.0051
%RSD	127.7	80.03	21.10	60.19	1053.1	11.28
#1	-.0001	-.2756	.0030	.0016	-.00063	.0408
#2	.0000	-.1360	.0020	.0008	.00029	.0443
#3	-.0008	-.0373	.0022	.0005	.00052	.0509

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0001**	**-.0001**	**-.0003**	**.0007**	**-.0620**	**.0006**
Stddev	.0002	.0001	.0000	.0004	.0711	.0020
%RSD	183.6	120.0	15.98	47.68	114.5	335.5
#1	.0001	-.0001	-.0003	.0012	-.1263	.0029
#2	-.0002	.0000	-.0002	.0005	.0143	-.0009
#3	-.0002	-.0001	-.0003	.0006	-.0741	-.0002

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**-.0001**	**.0000**	**.0007**	**.0010**	**.0003**	**.0004**
Stddev	.0000	.0001	.0003	.0005	.0014	.0013
%RSD	83.09	1134.	40.30	47.45	444.1	318.2
#1	.0000	.0000	.0009	.0005	-.0011	-.0009
#2	-.0001	.0001	.0004	.0015	.0004	.0004
#3	.0000	-.0001	.0009	.0010	.0016	.0017

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0006**	**.0021**	**-.0003**	**.0016**
Stddev	.0006	.0017	.0002	.0003
%RSD	107.5	81.57	63.37	16.13
#1	-.0001	.0002	-.0005	.0019
#2	-.0013	.0034	-.0001	.0015
#3	-.0004	.0026	-.0002	.0014

Sample Name: MB 580-95118/16-A Acquired: 9/14/2011 12:25:48 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2228.1	22821.	309.38	703.37
Stddev	3.2	59.	1.09	5.71
%RSD	.14411	.26004	.35391	.81134
#1	2231.7	22888.	308.20	696.79
#2	2225.5	22776.	310.37	706.50
#3	2227.1	22799.	309.56	706.84

Sample Name: 580-28356-A-17-A Acquired: 9/14/2011 12:32:45 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0000**	**5.350**	**.9832**	**.0153**	**-.00033**	**.6170**
Stddev	.0002	.084	.0004	.0001	.00148	.0321
%RSD	3728.	1.573	.0396	.8032	453.51	5.205
#1	-.0001	5.318	.9832	.0153	.00128	.5965
#2	-.0001	5.288	.9837	.0155	-.00165	.6005
#3	.0003	5.446	.9829	.0152	-.00061	.6540

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0000**	**.0044**	**.0015**	**.0239**	**11.12**	**.8368**
Stddev	.000	.0000	.0001	.0002	.08	.0031
%RSD	230.3	.8642	4.265	.8344	.7597	.3740
#1	.0000	.0043	.0016	.0241	11.03	.8404
#2	.0000	.0044	.0015	.0237	11.19	.8351
#3	-.0002	.0044	.0015	.0238	11.14	.8348

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**1.161**	**.0017**	**.0014**	**.0192**	**.0042**	**-.0001**
Stddev	.003	.0003	.0002	.0020	.0003	.0011
%RSD	.2335	15.00	15.76	10.56	8.234	761.6
#1	1.164	.0018	.0012	.0170	.0043	.0006
#2	1.161	.0019	.0016	.0209	.0038	-.0014
#3	1.158	.0014	.0015	.0199	.0044	.0003

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0005**	**.0031**	**.0144**	**.0924**
Stddev	.0005	.0033	.0000	.0002
%RSD	92.53	108.4	.0863	.2383
#1	-.0011	.0014	.0144	.0926
#2	-.0002	.0069	.0144	.0924
#3	-.0003	.0009	.0144	.0922

Sample Name: 580-28356-A-17-A Acquired: 9/14/2011 12:32:45 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2208.0	23120.	317.53	699.73
Stddev	1.9	17.	3.00	4.64
%RSD	.08491	.07292	.94554	.66251
#1	2208.2	23108.	314.08	696.62
#2	2206.0	23112.	318.96	705.06
#3	2209.7	23139.	319.55	697.52

Sample Name: 580-28356-A-18-A Acquired: 9/14/2011 12:39:38 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0000**	**3.993**	**.4886**	**.0222**	**.00021**	**.4112**
Stddev	.000	.194	.0020	.0008	.00073	.0706
%RSD	287.1	4.845	.4031	3.383	338.06	17.18
#1	.0001	3.809	.4868	.0231	-.00055	.4301
#2	.0000	4.195	.4907	.0216	.00029	.3330
#3	-.0002	3.975	.4884	.0220	.00090	.4705

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0003**	**.0039**	**.0018**	**.0212**	**8.553**	**.8677**
Stddev	.0000	.0002	.0002	.0001	.079	.0054
%RSD	18.13	6.356	11.73	.6720	.9279	.6277
#1	.0002	.0039	.0016	.0212	8.509	.8642
#2	.0002	.0036	.0018	.0213	8.505	.8650
#3	.0003	.0041	.0020	.0210	8.645	.8740

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**2.720**	**.0009**	**.0014**	**.0129**	**.0003**	**.0041**
Stddev	.013	.0002	.0003	.0005	.0018	.0020
%RSD	.4761	27.08	19.92	3.864	561.4	48.54
#1	2.709	.0006	.0017	.0127	.0007	.0020
#2	2.716	.0008	.0011	.0134	-.0016	.0059
#3	2.734	.0011	.0015	.0125	.0018	.0043

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0004**	**.0001**	**.0141**	**.0937**
Stddev	.0002	.0011	.0002	.0003
%RSD	47.17	1559.	1.412	.3502
#1	-.0002	.0007	.0141	.0936
#2	-.0006	-.0012	.0139	.0941
#3	-.0004	.0007	.0143	.0934

Sample Name: 580-28356-A-18-A Acquired: 9/14/2011 12:39:38 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2219.3	22969.	312.27	716.49
Stddev	1.7	85.	3.15	7.18
%RSD	.07623	.37051	1.0098	1.0020
#1	2221.2	23047.	308.71	708.90
#2	2218.5	22981.	313.40	717.40
#3	2218.1	22879.	314.70	723.17

Sample Name: 580-28356-A-19-A Acquired: 9/14/2011 12:46:31 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0001**	**1.444**	**1.062**	**.0084**	**-.00048**	**.1113**
Stddev	.0004	.088	.001	.0016	.00028	.0365
%RSD	748.1	6.088	.1016	19.44	58.514	32.80
#1	-.0002	1.345	1.062	.0085	-.00017	.0691
#2	-.0001	1.471	1.061	.0067	-.00055	.1326
#3	.0006	1.515	1.063	.0099	-.00071	.1321

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0002**	**.0040**	**.0007**	**.0286**	**10.57**	**.3298**
Stddev	.0000	.0002	.0001	.0004	.18	.0005
%RSD	6.933	4.516	17.73	1.287	1.656	.1574
#1	-.0002	.0038	.0007	.0283	10.38	.3292
#2	-.0002	.0042	.0006	.0290	10.71	.3301
#3	-.0002	.0039	.0009	.0284	10.63	.3302

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.9564**	**.0003**	**.0011**	**.0337**	**.0106**	**.0030**
Stddev	.0018	.0000	.0002	.0023	.0001	.0011
%RSD	.1868	6.092	20.59	6.769	1.352	36.08
#1	.9584	.0003	.0013	.0311	.0106	.0026
#2	.9559	.0003	.0009	.0344	.0108	.0022
#3	.9549	.0003	.0010	.0354	.0105	.0042

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0003**	**-.0008**	**.0108**	**.0402**
Stddev	.0002	.0013	.0002	.0002
%RSD	57.51	157.9	1.587	.4014
#1	-.0003	-.0023	.0108	.0402
#2	-.0004	-.0004	.0106	.0404
#3	-.0001	.0002	.0109	.0401

Sample Name: 580-28356-A-19-A Acquired: 9/14/2011 12:46:31 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2218.1	22314.	303.64	718.20
Stddev	7.2	60.	4.33	16.57
%RSD	.32252	.26834	1.4255	2.3069
#1	2214.8	22248.	299.10	700.98
#2	2213.2	22330.	307.73	734.03
#3	2226.3	22364.	304.10	719.58

Sample Name: 580-28356-A-20-A Acquired: 9/14/2011 12:53:26 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0002**	**1.819**	**1.711**	**.0114**	**-.00032**	**.1675**
Stddev	.0005	.057	.001	.0012	.00031	.0253
%RSD	254.9	3.127	.0729	10.59	95.927	15.11
#1	-.0004	1.799	1.710	.0111	-.00032	.1874
#2	.0005	1.775	1.711	.0128	-.00001	.1390
#3	.0005	1.884	1.712	.0104	-.00063	.1760

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0002**	**.0052**	**.0011**	**.0360**	**11.72**	**.4230**
Stddev	.0000	.0000	.0003	.0003	.09	.0020
%RSD	4.885	.1326	25.21	.7141	.7285	.4725
#1	-.0002	.0052	.0008	.0363	11.62	.4246
#2	-.0003	.0052	.0012	.0358	11.79	.4237
#3	-.0002	.0052	.0012	.0360	11.74	.4208

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**1.395**	**.0003**	**.0008**	**.0385**	**.0108**	**.0011**
Stddev	.002	.0003	.0003	.0009	.0020	.0021
%RSD	.1295	113.0	32.77	2.219	18.72	193.7
#1	1.397	.0004	.0006	.0375	.0129	.0017
#2	1.393	-.0001	.0011	.0389	.0088	-.0012
#3	1.395	.0005	.0006	.0391	.0108	.0027

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0003**	**.0001**	**.0125**	**.0487**
Stddev	.0002	.0014	.0002	.0001
%RSD	74.13	1990.	1.740	.2924
#1	-.0004	.0001	.0127	.0486
#2	-.0004	-.0013	.0124	.0488
#3	.0000	.0014	.0123	.0486

Sample Name: 580-28356-A-20-A Acquired: 9/14/2011 12:53:26 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2230.3	22740.	308.48	732.79
Stddev	4.7	11.	1.14	6.16
%RSD	.20914	.04929	.36883	.84010
#1	2226.2	22749.	307.43	726.14
#2	2229.4	22742.	308.32	738.29
#3	2235.4	22727.	309.69	733.95

Sample Name: 580-28356-A-21-A Acquired: 9/14/2011 13:00:19 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0004**	**3.130**	**.0224**	**.0101**	**-.00093**	**.4324**
Stddev	.0003	.056	.0024	.0010	.00016	.1231
%RSD	97.57	1.782	10.51	9.718	16.984	28.47
#1	-.0005	3.094	.0232	.0096	-.00090	.3216
#2	-.0006	3.102	.0243	.0112	-.00110	.5649
#3	.0000	3.195	.0198	.0094	-.00079	.4109

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**-.0004**	**.0030**	**.0118**	**.0175**	**7.439**	**3.477**
Stddev	.0001	.0001	.0001	.0006	.047	.019
%RSD	13.21	2.929	1.200	3.377	.6319	.5543
#1	-.0004	.0029	.0119	.0175	7.410	3.499
#2	-.0005	.0031	.0116	.0181	7.415	3.469
#3	-.0004	.0030	.0118	.0170	7.494	3.463

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0865**	**.0002**	**.0229**	**.0036**	**-.0005**	**.0020**
Stddev	.0005	.0003	.0002	.0018	.0015	.0036
%RSD	.6235	119.4	1.016	48.90	273.4	182.8
#1	.0871	.0003	.0228	.0017	-.0021	.0061
#2	.0863	.0004	.0227	.0052	-.0004	.0000
#3	.0861	-.0001	.0231	.0039	.0009	-.0003

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0002**	**.0003**	**.0115**	**.0110**
Stddev	.0004	.0021	.0001	.0002
%RSD	154.9	730.1	1.044	1.843
#1	.0002	-.0011	.0115	.0109
#2	-.0004	.0027	.0117	.0112
#3	-.0005	-.0007	.0114	.0108

Sample Name: 580-28356-A-21-A Acquired: 9/14/2011 13:00:19 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2231.8	22514.	300.58	741.65
Stddev	4.4	72.	5.37	3.94
%RSD	.19666	.32111	1.7855	.53125
#1	2227.5	22432.	294.39	738.25
#2	2231.7	22545.	303.88	740.73
#3	2236.2	22567.	303.48	745.97

Sample Name: CCB Acquired: 9/14/2011 13:13:44 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0002**	**-.2197**	**.0024**	**-.0006**	**-.00031**	**-.0335**
Stddev	.0003	.2018	.0027	.0004	.00059	.0974
%RSD	152.2	91.86	114.9	70.79	190.86	290.3
#1	-.0003	.0129	.0042	-.0011	-.00098	-.1043
#2	-.0004	-.3242	-.0008	-.0004	-.00009	-.0738
#3	.0001	-.3477	.0037	-.0003	.00014	.0775
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	Mg2790
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	279.079 {121}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0000**	**.0001**	**-.0003**	**.0003**	**-.0405**	**.0013**
Stddev	.0001	.0001	.0003	.0006	.0187	.0025
%RSD	550.8	105.8	77.89	170.2	46.13	192.1
#1	-.0001	.0001	.0000	.0005	-.0598	.0041
#2	.0000	.0001	-.0004	-.0003	-.0225	-.0004
#3	.0001	.0000	-.0005	.0008	-.0393	.0002
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/14/2011 13:13:44 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068	Se1960
Line	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}	196.090 {472}
Units	mg/l	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0000**	**.0002**	**.0004**	**.0027**	**.0012**	**.0001**
Stddev	.000	.0002	.0006	.0008	.0014	.0005
%RSD	52.14	102.5	160.2	31.93	122.6	915.1
#1	.0000	.0003	.0009	.0036	.0005	.0006
#2	.0000	.0000	.0004	.0024	.0002	-.0001
#3	.0000	.0003	-.0002	.0019	.0028	-.0003
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Sn1899	Tl1908	V_2924	Zn2138
Line	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l
Avg	**-.0004**	**.0022**	**-.0004**	**.0005**
Stddev	.0003	.0010	.0002	.0002
%RSD	88.03	43.97	47.20	35.56
#1	-.0006	.0028	-.0005	.0004
#2	.0000	.0026	-.0002	.0005
#3	-.0006	.0011	-.0003	.0008
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Sample Name: CCB Acquired: 9/14/2011 13:13:44 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2247.9	21958.	296.28	732.63
Stddev	5.0	52.	3.11	2.05
%RSD	.22197	.23731	1.0494	.28006
#1	2248.9	21996.	295.30	730.78
#2	2252.3	21979.	293.78	732.27
#3	2242.5	21898.	299.76	734.83

Sample Name: Blank Acquired: 9/16/2011 9:42:27 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-1.533**	**.0013**	**.0000**	**.0115**	**.0000**	**.0008**
Stddev	2.050	.0006	.0000	.0009	.000	.0007
%RSD	133.7	46.65	110.4	7.913	86.36	82.87
#1	-3.600	.0020	.0000	.0124	.0000	.0009
#2	.5000	.0010	.0000	.0116	-.0001	.0014
#3	-1.500	.0009	.0000	.0106	.0000	.0001

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2784.4**	**24506.**	**325.25**	**806.41**
Stddev	4.8	49.	6.97	3.76
%RSD	.17235	.20000	2.1427	.46629
#1	2789.1	24538.	318.40	805.97
#2	2779.5	24450.	332.33	802.89
#3	2784.6	24531.	325.04	810.37

Sample Name: CalibStd1 00020 Acquired: 9/16/2011 9:49:19 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**3.200**	**.0190**	**.0005**	**.0847**	**.0634**	**.1821**
Stddev	.427	.0021	.0000	.0066	.0002	.0009
%RSD	13.35	10.90	3.752	7.772	.3123	.4921
#1	2.800	.0176	.0005	.0904	.0632	.1825
#2	3.650	.0214	.0005	.0775	.0636	.1811
#3	3.150	.0181	.0005	.0862	.0635	.1827

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2750.6**	**24668.**	**330.03**	**818.86**
Stddev	1.0	33.	3.02	10.07
%RSD	.03637	.13398	.91510	1.2292
#1	2750.1	24704.	326.59	807.96
#2	2751.7	24658.	332.22	820.81
#3	2749.9	24641.	331.29	827.80

Sample Name: CalibStd-2 00022 Acquired: 9/16/2011 9:56:12 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**19.10**	**.0989**	**.0024**	**.3941**	**.3103**	**.9251**
Stddev	1.69	.0027	.0000	.0046	.0005	.0020
%RSD	8.866	2.687	1.588	1.168	.1486	.2145
#1	19.95	.1016	.0024	.3981	.3103	.9240
#2	20.20	.0963	.0025	.3951	.3098	.9240
#3	17.15	.0988	.0025	.3890	.3107	.9274

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2663.7**	**24569.**	**331.78**	**819.07**
Stddev	5.5	66.	3.39	2.05
%RSD	.20741	.26994	1.0216	.25067
#1	2662.6	24522.	329.10	816.83
#2	2669.7	24645.	335.59	819.53
#3	2658.8	24539.	330.65	820.86

Sample Name: CalibStd-3 00020 Acquired: 9/16/2011 10:02:47 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**95.05**	**.4675**	**.0120**	**1.893**	**1.473**	**4.636**
Stddev	1.41	.0073	.0001	.017	.005	.015
%RSD	1.481	1.552	1.125	.8990	.3478	.3304
#1	94.27	.4618	.0118	1.893	1.469	4.624
#2	96.67	.4756	.0120	1.910	1.471	4.631
#3	94.20	.4649	.0121	1.876	1.479	4.653

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2447.3**	**24136.**	**345.91**	**819.44**
Stddev	7.1	76.	.58	7.44
%RSD	.28987	.31401	.16674	.90855
#1	2451.3	24190.	346.58	813.40
#2	2451.5	24168.	345.58	817.15
#3	2439.1	24049.	345.57	827.76

Sample Name: CalibStd-4 00020 Acquired: 9/16/2011 10:09:21 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**193.9**	**.9366**	**.0244**	**3.806**	**2.987**	**9.662**
Stddev	1.0	.0103	.0001	.059	.014	.035
%RSD	.4976	1.102	.3510	1.556	.4749	.3576
#1	192.9	.9484	.0243	3.871	2.972	9.625
#2	194.8	.9292	.0245	3.756	3.000	9.667
#3	193.9	.9323	.0245	3.790	2.989	9.694

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2291.0**	**23284.**	**335.13**	**818.99**
Stddev	6.3	59.	.86	12.26
%RSD	.27334	.25419	.25715	1.4969
#1	2297.8	23340.	334.16	804.87
#2	2289.7	23222.	335.42	826.96
#3	2285.5	23290.	335.81	825.13

Sample Name: ICV 200.7 00015 Acquired: 9/16/2011 10:15:54 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.996**	**5.011**	**5.043**	**14.94**	**5.107**	**.9710**
Stddev	.260	.249	.086	.10	.005	.0019
%RSD	5.212	4.963	1.699	.6410	.0990	.2004
#1	4.756	5.197	4.947	15.03	5.113	.9712
#2	4.959	4.729	5.069	14.94	5.106	.9729
#3	5.273	5.107	5.113	14.84	5.103	.9690
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2635.3**	**24677.**	**343.40**	**838.92**
Stddev	6.2	32.	2.91	6.45
%RSD	.23540	.12980	.84806	.76902
#1	2640.3	24681.	341.49	831.51
#2	2628.3	24643.	346.75	843.27
#3	2637.2	24707.	341.97	842.00

Sample Name: ICB_CCB Acquired: 9/16/2011 10:24:59 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	-.0171	-.1352	-.0275	.0734	-.0007	-.0006
Stddev	.1642	.0849	.0358	.0474	.0005	.0003
%RSD	960.4	62.82	130.0	64.54	69.20	50.18
#1	-.2063	-.0455	-.0672	.1015	-.0002	-.0008
#2	.0674	-.1457	-.0178	.1002	-.0007	-.0003
#3	.0876	-.2143	.0024	.0187	-.0012	-.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2798.0	24817.	335.83	831.43
Stddev	67.4	637.	2.77	10.32
%RSD	2.4086	2.5653	.82622	1.2415
#1	2875.8	25552.	337.36	841.31
#2	2758.0	24447.	337.51	832.26
#3	2760.1	24451.	332.63	820.72

Sample Name: CRI 00020 Acquired: 9/16/2011 10:34:28 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	1.298	1.141	.1653	2.956	1.163	.0289
Stddev	.097	.053	.0185	.114	.008	.0007
%RSD	7.451	4.685	11.18	3.870	.6852	2.586
#1	1.308	1.172	.1866	3.015	1.167	.0284
#2	1.389	1.079	.1534	2.824	1.169	.0285
#3	1.197	1.171	.1560	3.029	1.154	.0298
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2765.5	25034.	343.32	838.94
Stddev	7.9	58.	2.24	3.10
%RSD	.28681	.23229	.65338	.36953
#1	2758.6	24988.	341.30	842.46
#2	2763.6	25015.	342.93	836.63
#3	2774.2	25099.	345.74	837.71

Sample Name: HIGH STD 00020 Acquired: 9/16/2011 10:43:52 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**39.55**	**80.13**	**40.28**	**79.90**	**80.29**	**20.25**
Stddev	.56	1.22	.50	1.38	.22	.06
%RSD	1.421	1.522	1.242	1.728	.2787	.2941
#1	39.51	79.24	40.50	78.78	80.52	20.32
#2	40.13	81.52	40.63	81.44	80.28	20.21
#3	39.01	79.64	39.70	79.47	80.08	20.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2291.7**	**23251.**	**338.24**	**816.81**
Stddev	4.9	70.	4.21	10.73
%RSD	.21586	.30135	1.2453	1.3139
#1	2286.1	23174.	342.04	828.49
#2	2293.4	23266.	333.71	807.38
#3	2295.5	23312.	338.97	814.57

Sample Name: ICSA 00036 Acquired: 9/16/2011 10:52:51 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**492.7**	**480.2**	**199.5**	**.1886**	**491.0**	**-.0017**
Stddev	4.8	17.2	1.0	.0678	1.0	.0010
%RSD	.9696	3.581	.5184	35.96	.2080	59.80
#1	489.0	464.5	198.3	.1379	491.9	-.0023
#2	498.1	498.6	200.3	.1623	491.3	-.0023
#3	491.2	477.7	199.9	.2657	489.9	-.0005
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2057.3**	**21918.**	**331.85**	**802.62**
Stddev	3.8	67.	4.83	19.56
%RSD	.18497	.30434	1.4544	2.4374
#1	2052.9	21858.	334.77	820.51
#2	2059.5	21990.	326.28	781.73
#3	2059.5	21906.	334.50	805.62

Sample Name: ICSAB 00028 Acquired: 9/16/2011 11:02:24 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**499.7**	**482.7**	**203.1**	**205.8**	**498.8**	**10.39**
Stddev	3.4	3.2	1.7	1.7	3.6	.01
%RSD	.6801	.6606	.8560	.8345	.7176	.0770
#1	495.8	479.2	201.1	203.8	500.8	10.38
#2	502.1	485.4	203.7	206.6	500.9	10.40
#3	501.2	483.5	204.4	207.0	494.7	10.40
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1942.6**	**21598.**	**330.20**	**813.14**
Stddev	3.8	57.	2.39	1.49
%RSD	.19721	.26291	.72381	.18286
#1	1944.0	21623.	331.59	814.30
#2	1938.3	21533.	327.44	811.46
#3	1945.6	21638.	331.57	813.66

Sample Name: CCV 00033 Acquired: 9/16/2011 11:09:14 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**9.724**	**20.08**	**9.732**	**19.70**	**19.67**	**4.732**
Stddev	.288	.13	.060	.19	.08	.010
%RSD	2.957	.6487	.6121	.9835	.4118	.2189
#1	9.980	19.94	9.719	19.48	19.60	4.720
#2	9.413	20.11	9.797	19.85	19.66	4.737
#3	9.778	20.20	9.679	19.77	19.76	4.739
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2569.6**	**24379.**	**343.11**	**821.61**
Stddev	4.7	66.	3.32	3.53
%RSD	.18275	.26868	.96665	.43025
#1	2574.8	24425.	339.46	822.41
#2	2568.0	24409.	343.93	817.74
#3	2565.8	24304.	345.94	824.67

Sample Name: ICB_CCB Acquired: 9/16/2011 11:15:45 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	-.2063	-.0977	-.0225	.1000	.0075	.0013
Stddev	.1877	.1231	.0388	.0522	.0009	.0004
%RSD	91.01	126.0	172.1	52.16	11.76	33.08
#1	-.2164	.0419	-.0280	.0629	.0085	.0017
#2	-.3887	-.1440	-.0583	.1596	.0071	.0008
#3	-.0137	-.1908	.0187	.0775	.0069	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2779.0	24600.	344.80	843.48
Stddev	7.7	104.	3.57	4.19
%RSD	.27787	.42461	1.0350	.49682
#1	2772.3	24512.	340.69	840.36
#2	2777.3	24571.	347.08	841.83
#3	2787.4	24715.	346.63	848.24

Sample Name: MB 580-95447/18-A Acquired: 9/16/2011 11:22:45 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.2836	-.1032	.0715	-.0071	.0095	.0015
Stddev	.2444	.0273	.0800	.0908	.0026	.0006
%RSD	86.16	26.42	111.9	1275.	27.81	37.28
#1	.3107	-.0730	.0857	.0344	.0097	.0016
#2	.0269	-.1106	.1433	-.1112	.0067	.0020
#3	.5134	-.1259	-.0146	.0555	.0120	.0009

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2786.0	24628.	344.48	853.94
Stddev	4.4	51.	4.44	11.32
%RSD	.15890	.20548	1.2876	1.3252
#1	2785.6	24676.	339.37	840.90
#2	2781.8	24575.	347.38	859.73
#3	2790.6	24632.	346.68	861.19

Sample Name: LCS 580-95447/19-A Acquired: 9/16/2011 11:29:44 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.173**	**19.73**	**22.55**	**19.15**	**19.51**	**.9568**
Stddev	.588	.24	.04	.10	.02	.0018
%RSD	14.10	1.209	.1616	.5432	.1187	.1844
#1	3.494	19.59	22.54	19.14	19.49	.9550
#2	4.507	19.59	22.60	19.26	19.53	.9585
#3	4.517	20.00	22.53	19.06	19.52	.9570

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2492.0**	**23821.**	**341.74**	**846.19**
Stddev	3.5	57.	2.12	4.72
%RSD	.13946	.23925	.62143	.55766
#1	2492.8	23766.	343.08	850.69
#2	2488.2	23818.	342.85	841.28
#3	2495.0	23880.	339.29	846.58

Sample Name: LCSD 580-95447/20-A Acquired: 9/16/2011 11:36:18 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.366**	**20.39**	**22.65**	**19.90**	**19.68**	**.9580**
Stddev	.427	.36	.16	.28	.05	.0017
%RSD	9.789	1.750	.7263	1.424	.2450	.1755
#1	4.051	20.03	22.62	19.89	19.62	.9596
#2	4.194	20.74	22.51	20.18	19.71	.9563
#3	4.852	20.40	22.83	19.62	19.71	.9581

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2484.4**	**23948.**	**341.51**	**831.99**
Stddev	3.0	36.	3.68	12.05
%RSD	.12260	.15016	1.0786	1.4485
#1	2487.6	23970.	344.18	833.63
#2	2484.1	23967.	337.30	819.21
#3	2481.5	23906.	343.04	843.15

Sample Name: LCSSRM 580-95447/21- Acquired: 9/16/2011 11:42:53 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**51.25**	**68.05**	**92.16**	**19.67**	**23.87**	**1.641**
Stddev	.60	1.47	.69	.41	.07	.006
%RSD	1.177	2.158	.7529	2.093	.2812	.3809
#1	51.86	66.42	91.45	19.23	23.79	1.634
#2	51.23	68.47	92.21	19.75	23.89	1.641
#3	50.66	69.27	92.84	20.04	23.92	1.647

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2486.6**	**24600.**	**360.36**	**873.72**
Stddev	5.0	57.	4.99	14.03
%RSD	.19990	.23108	1.3838	1.6060
#1	2492.3	24658.	365.95	889.64
#2	2483.3	24599.	356.38	868.36
#3	2484.2	24544.	358.75	863.15

Sample Name: 580-28356-A-12-G Acquired: 9/16/2011 11:49:27 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**6.497**	**.6857**	**123.4**	**4.865**	**4.151**	**.8177**
Stddev	.199	.1474	.5	.047	.011	.0039
%RSD	3.069	21.49	.3805	.9555	.2642	.4716
#1	6.680	.8449	122.9	4.872	4.163	.8221
#2	6.285	.5540	123.7	4.907	4.147	.8161
#3	6.528	.6582	123.8	4.815	4.143	.8149

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2657.1**	**24694.**	**346.71**	**865.68**
Stddev	8.3	49.	2.25	5.77
%RSD	.31199	.19731	.65038	.66682
#1	2649.2	24651.	344.25	871.76
#2	2665.7	24747.	348.68	865.00
#3	2656.3	24686.	347.20	860.27

Sample Name: 580-28356-A-12-G Acquired: 9/16/2011 11:56:18 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**39.90**	**4.904**	**725.4**	**30.51**	**21.71**	**4.009**
Stddev	.33	.138	11.9	.56	1.59	.072
%RSD	.8264	2.819	1.636	1.844	7.302	1.790
#1	40.09	4.980	737.9	31.13	23.20	4.088
#2	40.10	4.986	723.9	30.36	21.89	3.990
#3	39.52	4.744	714.3	30.04	20.04	3.948

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2372.8**	**23929.**	**346.30**	**859.09**
Stddev	11.9	99.	4.60	3.93
%RSD	.49971	.41474	1.3292	.45769
#1	2359.2	23814.	351.43	856.51
#2	2378.1	23988.	342.54	857.15
#3	2381.0	23984.	344.92	863.62

Sample Name: 580-28356-A-12-H MS Acquired: 9/16/2011 12:03:09 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**39.60**	**7.648**	**703.2**	**32.40**	**22.65**	**4.619**
Stddev	.91	.132	14.8	.10	.95	.062
%RSD	2.303	1.719	2.104	.3223	4.194	1.333
#1	40.06	7.660	715.1	32.46	23.60	4.689
#2	40.18	7.773	707.9	32.47	22.66	4.596
#3	38.55	7.511	686.6	32.28	21.70	4.572

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2356.1**	**24011.**	**348.41**	**840.96**
Stddev	6.7	33.	4.25	15.88
%RSD	.28493	.13820	1.2200	1.8885
#1	2349.6	23986.	353.22	856.80
#2	2355.6	23997.	345.18	841.05
#3	2363.0	24049.	346.82	825.04

Sample Name: 580-28356-A-12-I MSD Acquired: 9/16/2011 12:09:57 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**47.86**	**8.027**	**798.6**	**37.71**	**25.91**	**4.890**
Stddev	1.26	.284	21.4	1.05	1.53	.342
%RSD	2.630	3.537	2.684	2.775	5.912	6.991
#1	49.08	8.225	819.3	38.68	27.45	5.243
#2	47.94	8.156	799.8	37.87	25.90	4.864
#3	46.56	7.702	776.5	36.60	24.38	4.561

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2344.9**	**23862.**	**345.06**	**872.95**
Stddev	26.6	105.	.07	6.03
%RSD	1.1338	.44139	.02148	.69019
#1	2317.8	23753.	344.98	869.02
#2	2346.0	23871.	345.13	869.96
#3	2370.9	23964.	345.08	879.89

Sample Name: 580-28356-A-12-G PD Acquired: 9/16/2011 12:16:45 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**38.39**	**24.85**	**648.4**	**46.87**	**37.87**	**4.877**
Stddev	.78	.48	.9	.95	1.73	.035
%RSD	2.038	1.933	.1443	2.021	4.576	.7228
#1	39.05	25.38	648.5	47.96	39.64	4.916
#2	38.59	24.72	649.3	46.34	37.79	4.866
#3	37.52	24.45	647.4	46.30	36.17	4.848

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2274.0**	**23743.**	**344.96**	**865.44**
Stddev	6.2	27.	5.81	16.56
%RSD	.27388	.11251	1.6835	1.9131
#1	2266.8	23722.	338.26	846.47
#2	2278.1	23773.	348.27	877.00
#3	2277.1	23735.	348.36	872.85

Sample Name: 580-28356-A-12-G Acquired: 9/16/2011 12:23:26 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	2.923	.2930	61.03	2.503	2.060	.4010
Stddev	.143	.0706	.35	.093	.002	.0007
%RSD	4.892	24.11	.5724	3.708	.0889	.1765
#1	2.791	.3430	60.63	2.575	2.062	.4008
#2	2.902	.3237	61.26	2.399	2.059	.4018
#3	3.075	.2122	61.20	2.536	2.059	.4004

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2744.4	25226.	359.02	852.61
Stddev	3.1	72.	2.93	4.52
%RSD	.11226	.28614	.81550	.53032
#1	2747.7	25301.	358.20	854.60
#2	2741.6	25218.	356.59	847.43
#3	2744.0	25158.	362.27	855.79

Sample Name: 580-28356-A-12-G Acquired: 9/16/2011 12:30:20 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	.0714	-.0550	5.796	.2733	.2019	.0387
Stddev	.2644	.0543	.086	.1262	.0021	.0009
%RSD	370.0	98.70	1.491	46.19	1.057	2.228
#1	.0073	-.1166	5.696	.3832	.2038	.0377
#2	-.1549	-.0140	5.851	.3012	.2024	.0390
#3	.3620	-.0345	5.841	.1354	.1996	.0393

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2804.0	25176.	359.75	863.17
Stddev	.7	45.	10.20	24.55
%RSD	.02442	.17853	2.8343	2.8437
#1	2804.7	25143.	371.27	891.42
#2	2803.9	25157.	351.89	847.11
#3	2803.3	25227.	356.08	850.97

Sample Name: CCV Acquired: 9/16/2011 12:37:18 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**9.698**	**19.92**	**9.588**	**19.46**	**19.15**	**4.732**
Stddev	.345	.29	.095	.10	.04	.003
%RSD	3.560	1.467	.9882	.5135	.2339	.0553
#1	9.300	19.96	9.696	19.51	19.20	4.735
#2	9.887	20.19	9.550	19.52	19.12	4.729
#3	9.908	19.61	9.519	19.34	19.13	4.732
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2599.9**	**25147.**	**360.70**	**833.37**
Stddev	1.3	42.	4.52	7.63
%RSD	.04894	.16648	1.2531	.91603
#1	2599.0	25111.	355.60	826.74
#2	2601.3	25193.	362.32	831.66
#3	2599.3	25137.	364.19	841.72

Sample Name: CCB Acquired: 9/16/2011 12:43:51 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790	Pb2203
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}	220.353 {453}
Units	ppm	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	-.0745	-.0363	.0514	.1956	.0065	.0009
Stddev	.1029	.0907	.0793	.1145	.0016	.0003
%RSD	138.1	249.8	154.3	58.52	24.12	36.01
#1	-.0948	-.0556	-.0381	.2281	.0080	.0012
#2	-.1657	-.1158	.0795	.0684	.0049	.0008
#3	.0370	.0625	.1128	.2904	.0068	.0006
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2818.9	25230.	350.85	821.31
Stddev	6.1	57.	3.62	11.42
%RSD	.21699	.22509	1.0313	1.3903
#1	2823.7	25242.	346.77	808.15
#2	2821.1	25280.	353.66	827.11
#3	2812.0	25168.	352.13	828.66

Step	Mass	Element	r	b(blank)	DL	BEC	Unit	
1	6	Li	0.0000	--- ---	---	ug/l		
1	7	Li	0.0000	--- ---	---	ug/l		
1	9	Be	1.0000	1.883E-03	1.289E-02	7.623E-03	ug/l	
1	23	Na	1.0000	100.1 5.974	78.81	ug/l		
1	24	Mg	0.9999	1.784E-01	9.957E-02	2.377E-01	ug/l	
1	27	Al	0.9999	1.905E-01	1.712E-01	4.023E-01	ug/l	
1	31	P	0.9999	8.372E-01	3.081 22.78	ug/l		
1	39	K	1.0000	3.777 11.30	103.8	ug/l		
1	44	Ca	1.0000	1.102E-02	1.028 6.323	ug/l		
1	45	Sc	0.0000	--- ---	---	ug/l		
1	47	Ti	1.0000	3.914E-04	2.293E-02	4.160E-02	ug/l	
1	51	V	1.0000	5.206E-02	4.225E-02	2.375E-01	ug/l	
1	52	Cr	1.0000	3.194E-02	3.127E-02	1.302E-01	ug/l	
1	55	Mn	1.0000	3.327E-03	1.297E-02	1.761E-02	ug/l	
1	57	Fe	1.0000	3.590E-03	1.234 1.448	ug/l		
1	59	Co	0.9999	6.476E-04	1.373E-03	4.146E-03	ug/l	
1	60	Ni	1.0000	1.125E-03	2.489E-02	2.882E-02	ug/l	
1	63	Cu	1.0000	1.998E-02	1.851E-02	1.972E-01	ug/l	
1	66	Zn	0.9999	1.423E-03	3.016E-02	6.366E-02	ug/l	
1	74	Ge	0.0000	--- ---	---	ug/l		
1	75	As	1.0000	2.011E-03	2.466E-02	1.171E-01	ug/l	
1	78	Se	1.0000	1.327E-03	1.532E-01	7.677E-01	ug/l	
1	88	Sr	1.0000	6.345E-03	2.774E-03	5.914E-02	ug/l	
1	95	Mo	1.0000	7.126E-04	2.181E-02	2.078E-02	ug/l	
1	103	Rh	0.0000	--- ---	---	ug/l		
1	109	Ag	1.0000	3.482E-04	3.964E-03	3.352E-03	ug/l	
1	111	Cd	1.0000	2.538E-05	3.259E-02	1.336E-03	ug/l	
1	118	Sn	1.0000	9.707E-04	2.761E-03	2.265E-02	ug/l	
1	123	Sb	1.0000	7.436E-04	1.268E-02	1.519E-02	ug/l	
1	135	Ba	1.0000	1.205E-04	2.316E-02	1.002E-02	ug/l	
1	165	Ho	0.0000	--- ---	---	ug/l		
1	175	Lu	0.0000	--- ---	---	ug/l		
1	200	Hg	1.0000	4.917E-04	9.040E-03	1.001E-02	ug/l	
1	205	Tl	1.0000	7.347E-03	8.329E-03	1.715E-02	ug/l	
1	208	Pb	1.0000	2.152E-01	8.630E-03	3.710E-01	ug/l	
1	209	Bi	0.0000	--- ---	---	ug/l		
1	238	U	1.0000	6.797E-04	1.003E-03	1.184E-03	ug/l	

TA Seattle Calibration Blank QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#
Date Acquired: Sep 13 2011 04:33 pm Acq. Method: 00He_ALL.M
Sample Name: STD0 Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211
Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Tune # Name
Operator: FCW ICP-MS ID#SEA44 1 c:\icpchem\1\7500\he.u
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C 2 C:\ICPCHEM\1\7500\
Last Cal. Update: Sep 14 2011 07:30 am 3 C:\ICPCHEM\1\7500\
ISTD Ref File : --- Sample Type: CalBlk

QC&ISTD Elements

Element		Tune	CPS Mean		SD	RSD(%)
6	Li	1	70499.0	P	1022.00	1.45
7	Li	1	5908.1	P	168.70	2.86
9	Be	1	2.7	P	1.53	57.30
23	Na	1	141128.6	P	1598.00	1.13
24	Mg	1	251.7	P	36.17	14.37
27	Al	1	268.3	P	35.12	13.09
31	P	1	1180.1	P	43.31	3.67
39	K	1	128589.9	P	2000.00	1.56
44	Ca	1	375.4	P	27.51	7.33
45	Sc	1	1702939.0	A	34630.00	2.03
47	Ti	1	13.3	P	2.52	18.88
51	V	1	1771.8	P	67.90	3.83
52	Cr	1	1086.7	P	65.26	6.01
55	Mn	1	113.3	P	28.43	25.09
56	Fe	1		P		
57	Fe	1	278.3	P	84.31	30.29
59	Co	1	50.0	P	5.00	10.00
60	Ni	1	86.7	P	23.63	27.27
63	Cu	1	1543.5	P	20.21	1.31
66	Zn	1	110.0	P	18.03	16.39
74	Ge	1	3864163.0	A	71160.00	1.84
75	As	1	155.3	P	9.02	5.81
78	Se	1	102.5	P	5.22	5.09
88	Sr	1	490.3	P	7.46	1.52
95	Mo	1	78.3	P	27.54	35.16
99	(Mo)	1		P		
103	Rh	1	5496225.0	A	76490.00	1.39
106	(Cd)	1		P		
108	(Cd)	1		P		
109	Ag	1	38.3	P	15.28	39.86
111	Cd	1	2.6	P	22.54	873.65
118	Sn	1	106.7	P	2.89	2.71
123	Sb	1	81.7	P	22.55	27.61
135	Ba	1	13.3	P	10.41	78.07
165	Ho	1	2486936.0	A	19670.00	0.79
175	Lu	1	2102591.0	A	9034.00	0.43
200	Hg	1	25.3	P	7.77	30.66
205	Tl	1	378.3	P	63.31	16.73
206	Pb	1		P		
207	Pb	1		P		
208	Pb	1	11074.0	P	90.19	0.81
209	Bi	1	2573391.0	A	14000.00	0.54
238	U	1	35.0	P	10.00	28.57

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091311Z.B\004CALS.D\004CALS.D#

Date Acquired: Sep 13 2011 04:37 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD1**

Vial Number: 1305

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 14 2011 07:30 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	36.7	P	4.04	11.02
23	Na	6	1	184310.7	P	1206.00	0.65
24	Mg	6	1	11353.6	P	280.90	2.47
27	Al	6	1	1561.8	P	57.96	3.71
31	P	6	1	1628.5	P	160.70	9.87
39	K	45	1	150117.0	P	1523.00	1.01
44	Ca	45	1	1536.5	P	41.40	2.69
47	Ti	45	1	41.0	P	2.00	4.88
51	V	45	1	2707.0	P	83.13	3.07
52	Cr	45	1	2000.2	P	114.40	5.72
55	Mn	45	1	2608.7	P	118.50	4.54
57	Fe	74	1	2462.0	P	55.09	2.24
59	Co	74	1	1401.8	P	71.83	5.12
60	Ni	74	1	930.1	P	37.75	4.06
63	Cu	74	1	4587.6	P	110.60	2.41
66	Zn	74	1	2425.3	P	135.30	5.58
75	As	74	1	276.0	P	10.58	3.83
78	Se	74	1	121.3	P	4.16	3.43
88	Sr	74	1	1522.6	P	101.80	6.69
95	Mo	103	1	428.4	P	7.64	1.78
109	Ag	103	1	1140.1	P	162.60	14.26
111	Cd	103	1	263.9	P	42.32	16.03
118	Sn	103	1	2295.3	P	147.30	6.42
123	Sb	103	1	561.7	P	36.17	6.44
135	Ba	103	1	198.3	P	28.43	14.33
200	Hg	209	1	41.0	P	2.00	4.88
205	Tl	209	1	2600.3	P	70.01	2.69
208	Pb	209	1	15327.6	P	177.90	1.16
238	U	209	1	2923.8	P	75.90	2.60

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	70006	1.12	70500	99.3	30 - 125	
45	Sc	1	1713083	3.67	1703000	100.6	30 - 125	
74	Ge	1	3863068	1.04	3864000	100.0	30 - 125	
103	Rh	1	5424704	1.35	5496000	98.7	30 - 125	
165	Ho	1	2492371	0.35	2487000	100.2	30 - 125	
175	Lu	1	2092962	0.85	2103000	99.5	30 - 125	
209	Bi	1	2554280	1.71	2573000	99.3	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091311Z.B\005CALS.D\005CALS.D#

Date Acquired: Sep 13 2011 04:41 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD2**

Vial Number: 1304

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 14 2011 07:30 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	317.7	P	17.04	5.36
23	Na	6	1	326689.8	P	1726.00	0.53
24	Mg	6	1	107819.0	P	577.40	0.54
27	Al	6	1	10948.2	P	215.50	1.97
31	P	6	1	6029.9	P	124.20	2.06
39	K	45	1	264229.4	P	3184.00	1.21
44	Ca	45	1	6559.0	P	77.29	1.18
47	Ti	45	1	331.7	P	21.57	6.50
51	V	45	1	8971.7	P	54.85	0.61
52	Cr	45	1	9573.8	P	212.70	2.22
55	Mn	45	1	7010.4	P	50.61	0.72
57	Fe	74	1	20104.6	P	253.60	1.26
59	Co	74	1	12027.6	P	170.50	1.42
60	Ni	74	1	3317.2	P	89.51	2.70
63	Cu	74	1	10160.9	P	51.36	0.51
66	Zn	74	1	2602.0	P	174.30	6.70
75	As	74	1	1513.4	P	40.22	2.66
78	Se	74	1	240.2	P	11.73	4.88
88	Sr	74	1	8998.2	P	225.50	2.51
95	Mo	103	1	3744.0	P	68.09	1.82
109	Ag	103	1	11572.3	P	236.50	2.04
111	Cd	103	1	2113.2	P	193.70	9.17
118	Sn	103	1	4804.4	P	139.00	2.89
123	Sb	103	1	5287.9	P	121.00	2.29
135	Ba	103	1	1373.4	P	7.64	0.56
200	Hg	209	1	166.0	P	20.00	12.05
205	Tl	209	1	22074.5	P	260.80	1.18
208	Pb	209	1	41269.7	P	1131.00	2.74
238	U	209	1	29007.0	P	521.10	1.80

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	70108	1.20	70500	99.4	30 - 125	
45	Sc	1	1732541	2.65	1703000	101.7	30 - 125	
74	Ge	1	3834752	0.64	3864000	99.2	30 - 125	
103	Rh	1	5446267	2.25	5496000	99.1	30 - 125	
165	Ho	1	2472042	0.90	2487000	99.4	30 - 125	
175	Lu	1	2060364	1.39	2103000	98.0	30 - 125	
209	Bi	1	2561726	1.27	2573000	99.6	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091311Z.B\006CALS.D\006CALS.D#
Date Acquired: Sep 13 2011 04:46 pm
Acq. Method: 00He_ALL.M
Sample Name: **STD3**
Vial Number: 1303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211
Operator: FCW ICP-MS ID#SEA44
Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	icpchem\1\7500\he.u
2	C:\ICPCHEM\1\7500\
3	C:\ICPCHEM\1\7500\

QC&ISTD Elements
Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	3369.1	P	79.80	2.37
23	Na	6	1	1907951.0	A	30960.00	1.62
24	Mg	6	1	1051867.0	A	34470.00	3.28
27	Al	6	1	65488.1	P	999.70	1.53
31	P	6	1	50119.7	P	783.70	1.56
39	K	45	1	1424628.0	A	30230.00	2.12
44	Ca	45	1	60237.4	P	687.20	1.14
47	Ti	45	1	3258.4	P	38.95	1.20
51	V	45	1	77007.5	P	319.40	0.41
52	Cr	45	1	86244.7	P	349.90	0.41
55	Mn	45	1	66847.6	P	427.70	0.64
57	Fe	74	1	193739.5	P	1030.00	0.53
59	Co	74	1	121303.8	P	515.30	0.42
60	Ni	74	1	31823.8	P	232.20	0.73
63	Cu	74	1	83745.1	P	421.30	0.50
66	Zn	74	1	18044.8	P	246.30	1.36
75	As	74	1	13291.8	P	210.50	1.58
78	Se	74	1	1452.1	P	16.98	1.17
88	Sr	74	1	85613.6	P	730.70	0.85
95	Mo	103	1	36066.1	P	345.30	0.96
109	Ag	103	1	113905.5	P	361.70	0.32
111	Cd	103	1	20590.6	P	264.00	1.28
118	Sn	103	1	46734.4	P	488.60	1.05
123	Sb	103	1	52377.5	P	606.30	1.16
135	Ba	103	1	13134.0	P	113.10	0.86
200	Hg	209	1	1294.1	P	91.94	7.10
205	Tl	209	1	217043.4	P	2326.00	1.07
208	Pb	209	1	311519.3	P	1174.00	0.38
238	U	209	1	293579.9	P	1088.00	0.37

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	70388	1.14	70500	99.8	30 - 125	
45	Sc	1	1713793	2.14	1703000	100.6	30 - 125	
74	Ge	1	3910538	1.42	3864000	101.2	30 - 125	
103	Rh	1	5400818	0.53	5496000	98.3	30 - 125	
165	Ho	1	2507913	2.72	2487000	100.8	30 - 125	
175	Lu	1	2096555	1.89	2103000	99.7	30 - 125	
209	Bi	1	2575990	2.20	2573000	100.1	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**
0 :Element Failures **:Max. Number of Failures Allowed**
0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091311Z.B\007CALS.D\007CALS.D#

Date Acquired: Sep 13 2011 04:50 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD4**

Vial Number: 1302

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 14 2011 07:30 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	16885.3	P	147.60	0.87
23	Na	6	1	8813840.0	A	60570.00	0.69
24	Mg	6	1	5085394.0	A	54930.00	1.08
27	Al	6	1	324366.0	P	2892.00	0.89
31	P	6	1	250689.2	P	551.00	0.22
39	K	45	1	6429482.0	A	160600.00	2.50
44	Ca	45	1	300821.7	P	1418.00	0.47
47	Ti	45	1	16047.4	P	106.60	0.66
51	V	45	1	376035.3	P	5288.00	1.41
52	Cr	45	1	422266.0	P	3909.00	0.93
55	Mn	45	1	326790.1	P	1914.00	0.59
57	Fe	74	1	966958.3	A	4248.00	0.44
59	Co	74	1	603469.0	P	6324.00	1.05
60	Ni	74	1	153537.6	P	1752.00	1.14
63	Cu	74	1	402350.9	P	3643.00	0.91
66	Zn	74	1	86751.9	P	450.10	0.52
75	As	74	1	66753.7	P	492.70	0.74
78	Se	74	1	6867.4	P	85.91	1.25
88	Sr	74	1	421873.0	P	1986.00	0.47
95	Mo	103	1	181836.1	P	2090.00	1.15
109	Ag	103	1	555642.5	P	3526.00	0.63
111	Cd	103	1	101786.7	P	761.00	0.75
118	Sn	103	1	228961.1	P	1349.00	0.59
123	Sb	103	1	263647.9	P	263.90	0.10
135	Ba	103	1	64573.4	P	562.90	0.87
200	Hg	209	1	6083.3	P	67.67	1.11
205	Tl	209	1	1052857.0	A	21090.00	2.00
208	Pb	209	1	1461759.0	P	11890.00	0.81
238	U	209	1	1438254.0	A	4411.00	0.31

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	69387	3.06	70500	98.4	30 - 125	
45	Sc	1	1717818	1.66	1703000	100.9	30 - 125	
74	Ge	1	3936494	1.42	3864000	101.9	30 - 125	
103	Rh	1	5366356	1.18	5496000	97.6	30 - 125	
165	Ho	1	2508073	1.52	2487000	100.8	30 - 125	
175	Lu	1	2108526	1.41	2103000	100.3	30 - 125	
209	Bi	1	2482330	1.16	2573000	96.5	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091311Z.B\008CALS.D\008CALS.D#

Date Acquired: Sep 13 2011 04:54 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD5**

Vial Number: 1301

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 14 2011 07:30 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	34614.3	P	196.10	0.57
23	Na	6	1	17935480.0	A	185000.00	1.03
24	Mg	6	1	10536940.0	A	15900.00	0.15
27	Al	6	1	663253.5	P	5640.00	0.85
31	P	6	1	516859.7	P	6994.00	1.35
39	K	45	1	12818800.0	A	337100.00	2.63
44	Ca	45	1	608062.2	P	9854.00	1.62
47	Ti	45	1	32933.3	P	488.90	1.48
51	V	45	1	768250.5	P	8364.00	1.09
52	Cr	45	1	857566.2	A	4487.00	0.52
55	Mn	45	1	658582.2	P	7342.00	1.11
57	Fe	74	1	1944193.0	A	33260.00	1.71
59	Co	74	1	1227303.0	A	23290.00	1.90
60	Ni	74	1	305382.4	P	1794.00	0.59
63	Cu	74	1	792739.3	P	4931.00	0.62
66	Zn	74	1	175477.8	P	1936.00	1.10
75	As	74	1	135056.0	P	1095.00	0.81
78	Se	74	1	13644.7	P	53.64	0.39
88	Sr	74	1	839799.0	P	6491.00	0.77
95	Mo	103	1	366892.1	P	1764.00	0.48
109	Ag	103	1	1108378.0	A	6226.00	0.56
111	Cd	103	1	202643.2	P	1418.00	0.70
118	Sn	103	1	457526.7	P	2598.00	0.57
123	Sb	103	1	521528.6	P	2704.00	0.52
135	Ba	103	1	128273.4	P	944.40	0.74
200	Hg	209	1	12151.0	P	154.90	1.27
205	Tl	209	1	2118156.0	A	30480.00	1.44
208	Pb	209	1	2863316.0	A	4291.00	0.15
238	U	209	1	2822216.0	A	21060.00	0.75

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	69774	1.38	70500	99.0	30 - 125	
45	Sc	1	1746686	2.98	1703000	102.6	30 - 125	
74	Ge	1	3910562	1.86	3864000	101.2	30 - 125	
103	Rh	1	5331684	0.18	5496000	97.0	30 - 125	
165	Ho	1	2438943	1.14	2487000	98.1	30 - 125	
175	Lu	1	2072857	1.15	2103000	98.6	30 - 125	
209	Bi	1	2464948	1.45	2573000	95.8	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\009SMPL.D\009SMPL.D#
Date Acquired: Sep 13 2011 04:59 pm Acq. Method: 00He_ALL.M
Sample Name: ICV Vial Number: 1105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**39.510**	ug/l	39.51	1.2	900	6	P	
23	**Na**	1	**3897.000**	ug/l	3,897.00	2.2	450000	6	A	
24	**Mg**	1	**3895.000**	ug/l	3,895.00	1.5	450000	6	A	
27	**Al**	1	**391.900**	ug/l	391.90	1.1	450000	6	P	
31	**P**	1	**3890.000**	ug/l	3,890.00	1.5	450000	6	P	
39	**K**	1	**4089.000**	ug/l	4,089.00	0.8	450000	45	A	
44	**Ca**	1	**4051.000**	ug/l	4,051.00	1.2	450000	45	P	
47	**Ti**	1	**40.680**	ug/l	40.68	0.1	4500	45	P	
51	**V**	1	**40.340**	ug/l	40.34	1.0	4500	45	P	
52	**Cr**	1	**40.320**	ug/l	40.32	1.0	4500	45	P	
55	**Mn**	1	**40.630**	ug/l	40.63	1.0	4500	45	P	
57	**Fe**	1	**4035.000**	ug/l	4,035.00	1.0	450000	74	P	
59	**Co**	1	**40.050**	ug/l	40.05	1.3	4500	74	P	
60	**Ni**	1	**41.370**	ug/l	41.37	0.9	4500	74	P	
63	**Cu**	1	**41.260**	ug/l	41.26	1.2	4500	74	P	
66	**Zn**	1	**40.340**	ug/l	40.34	1.4	4500	74	P	
75	**As**	1	**39.980**	ug/l	39.98	0.9	4500	74	P	
78	**Se**	1	**40.000**	ug/l	40.00	0.4	4500	74	P	
88	**Sr**	1	**40.060**	ug/l	40.06	0.5	4500	74	P	
95	**Mo**	1	**39.810**	ug/l	39.81	0.6	4500	103	P	
109	**Ag**	1	**40.050**	ug/l	40.05	0.3	4500	103	P	
111	**Cd**	1	**40.140**	ug/l	40.14	0.7	4500	103	P	
118	**Sn**	1	**39.740**	ug/l	39.74	0.3	4500	103	P	
123	**Sb**	1	**39.490**	ug/l	39.49	1.0	4500	103	P	
135	**Ba**	1	**39.930**	ug/l	39.93	1.0	4500	103	P	
200	**Hg**	1	**2.020**	ug/l	2.02	2.6	45	209	P	
205	**Tl**	1	**40.210**	ug/l	40.21	0.7	4500	209	P	
208	**Pb**	1	**40.090**	ug/l	40.09	1.4	4500	209	P	
238	**U**	1	**39.910**	ug/l	39.91	1.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71571	1.33	70500	**101.5**	30	-	125	
45	Sc	1	1741233	1.26	1703000	**102.2**	30	-	125	
74	Ge	1	3943026	1.50	3864000	**102.0**	30	-	125	
103	Rh	1	5443043	0.30	5496000	**99.0**	30	-	125	
165	Ho	1	2486530	0.56	2487000	**100.0**	30	-	125	
175	Lu	1	2084460	0.75	2103000	**99.1**	30	-	125	
209	Bi	1	2512545	0.53	2573000	**97.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\010SMPL.D\010SMPL.D#
Date Acquired: Sep 13 2011 05:03 pm Acq. Method: 00He_ALL.M
Sample Name: ICB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.012**	ug/l	0.01	62.1	900	6	P	
23	**Na**	1	**-2.845**	ug/l	-2.85	33.7	450000	6	P	
24	**Mg**	1	**0.388**	ug/l	0.39	9.8	450000	6	P	
27	**Al**	1	**0.073**	ug/l	0.07	169.8	450000	6	P	
31	**P**	1	**-0.938**	ug/l	-0.94	244.5	450000	6	P	
39	**K**	1	**-0.869**	ug/l	-0.87	180.0	450000	45	P	
44	**Ca**	1	**0.236**	ug/l	0.24	269.9	450000	45	P	
47	**Ti**	1	**0.018**	ug/l	0.02	28.3	4500	45	P	
51	**V**	1	**0.002**	ug/l	0.00	564.5	4500	45	P	
52	**Cr**	1	**-0.001**	ug/l	0.00	676.3	4500	45	P	
55	**Mn**	1	**0.003**	ug/l	0.00	84.1	4500	45	P	
57	**Fe**	1	**1.781**	ug/l	1.78	5.4	450000	74	P	
59	**Co**	1	**0.006**	ug/l	0.01	42.2	4500	74	P	
60	**Ni**	1	**0.007**	ug/l	0.01	87.7	4500	74	P	
63	**Cu**	1	**0.007**	ug/l	0.01	177.3	4500	74	P	
66	**Zn**	1	**-0.005**	ug/l	0.00	72.6	4500	74	P	
75	**As**	1	**0.017**	ug/l	0.02	115.1	4500	74	P	
78	**Se**	1	**0.060**	ug/l	0.06	132.5	4500	74	P	
88	**Sr**	1	**0.004**	ug/l	0.00	178.4	4500	74	P	
95	**Mo**	1	**0.135**	ug/l	0.14	26.5	4500	103	P	
109	**Ag**	1	**0.004**	ug/l	0.00	48.8	4500	103	P	
111	**Cd**	1	**0.017**	ug/l	0.02	23.6	4500	103	P	
118	**Sn**	1	**0.266**	ug/l	0.27	9.2	4500	103	P	
123	**Sb**	1	**0.102**	ug/l	0.10	20.4	4500	103	P	
135	**Ba**	1	**0.015**	ug/l	0.01	31.1	4500	103	P	
200	**Hg**	1	**0.028**	ug/l	0.03	20.7	45	209	P	
205	**Tl**	1	**0.250**	ug/l	0.25	7.0	4500	209	P	
208	**Pb**	1	**0.010**	ug/l	0.01	18.4	4500	209	P	
238	**U**	1	**0.017**	ug/l	0.02	13.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72603	0.80	70500	**103.0**	30	-	125	
45	Sc	1	1774696	1.10	1703000	**104.2**	30	-	125	
74	Ge	1	3915018	2.17	3864000	**101.3**	30	-	125	
103	Rh	1	5566085	1.23	5496000	**101.3**	30	-	125	
165	Ho	1	2506318	0.27	2487000	**100.8**	30	-	125	
175	Lu	1	2138176	1.46	2103000	**101.7**	30	-	125	
209	Bi	1	2572241	1.35	2573000	**100.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\011SMPL.D\011SMPL.D#
Date Acquired: Sep 13 2011 05:07 pm Acq. Method: 00He_ALL.M
Sample Name: CRI Vial Number: 1107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.944**	ug/l	1.94	0.8	900	6	P	
23	**Na**	1	**204.800**	ug/l	204.80	2.0	450000	6	P	
24	**Mg**	1	**207.200**	ug/l	207.20	2.0	450000	6	P	
27	**Al**	1	**19.600**	ug/l	19.60	1.5	450000	6	P	
31	**P**	1	**193.900**	ug/l	193.90	3.9	450000	6	P	
39	**K**	1	**218.400**	ug/l	218.40	4.6	450000	45	P	
44	**Ca**	1	**207.800**	ug/l	207.80	1.5	450000	45	P	
47	**Ti**	1	**2.021**	ug/l	2.02	2.7	4500	45	P	
51	**V**	1	**2.070**	ug/l	2.07	4.3	4500	45	P	
52	**Cr**	1	**2.066**	ug/l	2.07	3.2	4500	45	P	
55	**Mn**	1	**2.118**	ug/l	2.12	2.6	4500	45	P	
57	**Fe**	1	**212.300**	ug/l	212.30	1.0	450000	74	P	
59	**Co**	1	**2.128**	ug/l	2.13	1.6	4500	74	P	
60	**Ni**	1	**2.137**	ug/l	2.14	1.6	4500	74	P	
63	**Cu**	1	**2.228**	ug/l	2.23	3.9	4500	74	P	
66	**Zn**	1	**2.152**	ug/l	2.15	3.0	4500	74	P	
75	**As**	1	**2.062**	ug/l	2.06	1.6	4500	74	P	
78	**Se**	1	**2.216**	ug/l	2.22	2.2	4500	74	P	
88	**Sr**	1	**2.086**	ug/l	2.09	1.2	4500	74	P	
95	**Mo**	1	**2.055**	ug/l	2.06	2.3	4500	103	P	
109	**Ag**	1	**2.072**	ug/l	2.07	2.9	4500	103	P	
111	**Cd**	1	**1.998**	ug/l	2.00	2.2	4500	103	P	
118	**Sn**	1	**2.132**	ug/l	2.13	2.3	4500	103	P	
123	**Sb**	1	**1.996**	ug/l	2.00	5.5	4500	103	P	
135	**Ba**	1	**2.083**	ug/l	2.08	3.5	4500	103	P	
200	**Hg**	1	**0.126**	ug/l	0.13	6.4	45	209	P	
205	**Tl**	1	**2.081**	ug/l	2.08	0.7	4500	209	P	
208	**Pb**	1	**2.072**	ug/l	2.07	3.4	4500	209	P	
238	**U**	1	**2.047**	ug/l	2.05	2.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	73253	1.16	70500	**103.9**	30	-	125	
45	Sc	1	1747911	2.90	1703000	**102.6**	30	-	125	
74	Ge	1	3924551	1.65	3864000	**101.6**	30	-	125	
103	Rh	1	5556195	0.22	5496000	**101.1**	30	-	125	
165	Ho	1	2504740	0.89	2487000	**100.7**	30	-	125	
175	Lu	1	2108455	1.16	2103000	**100.3**	30	-	125	
209	Bi	1	2578744	1.49	2573000	**100.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\012SMPL.D\012SMPL.D#
Date Acquired: Sep 13 2011 05:12 pm Acq. Method: 00He_ALL.M
Sample Name: ICSA Vial Number: 1101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	228.8	900	6	P	
23	**Na**	1	**48400.000**	ug/l	48,400.00	1.2	450000	6	A	
24	**Mg**	1	**19460.000**	ug/l	19,460.00	2.1	450000	6	A	
27	**Al**	1	**18520.000**	ug/l	18,520.00	1.8	450000	6	A	
31	**P**	1	**20020.000**	ug/l	20,020.00	1.2	450000	6	A	
39	**K**	1	**20020.000**	ug/l	20,020.00	0.8	450000	45	A	
44	**Ca**	1	**58150.000**	ug/l	58,150.00	0.5	450000	45	A	
47	**Ti**	1	**401.200**	ug/l	401.20	0.8	4500	45	P	
51	**V**	1	**-0.144**	ug/l	-0.14	3.7	4500	45	P	
52	**Cr**	1	**1.180**	ug/l	1.18	1.6	4500	45	P	
55	**Mn**	1	**0.658**	ug/l	0.66	5.9	4500	45	P	
57	**Fe**	1	**49120.000**	ug/l	49,120.00	1.7	450000	74	A	
59	**Co**	1	**0.014**	ug/l	0.01	35.1	4500	74	P	
60	**Ni**	1	**0.304**	ug/l	0.30	8.4	4500	74	P	
63	**Cu**	1	**0.092**	ug/l	0.09	18.1	4500	74	P	
66	**Zn**	1	**0.439**	ug/l	0.44	10.2	4500	74	P	
75	**As**	1	**0.021**	ug/l	0.02	108.2	4500	74	P	
78	**Se**	1	**0.098**	ug/l	0.10	39.6	4500	74	P	
88	**Sr**	1	**-0.672**	ug/l	-0.67	9.7	4500	74	P	
95	**Mo**	1	**437.000**	ug/l	437.00	1.1	4500	103	A	
109	**Ag**	1	**0.021**	ug/l	0.02	19.9	4500	103	P	
111	**Cd**	1	**0.085**	ug/l	0.09	3.7	4500	103	P	
118	**Sn**	1	**0.123**	ug/l	0.12	0.5	4500	103	P	
123	**Sb**	1	**0.152**	ug/l	0.15	2.6	4500	103	P	
135	**Ba**	1	**0.096**	ug/l	0.10	13.2	4500	103	P	
200	**Hg**	1	**0.023**	ug/l	0.02	15.4	45	209	P	
205	**Tl**	1	**0.086**	ug/l	0.09	9.3	4500	209	P	
208	**Pb**	1	**0.042**	ug/l	0.04	8.9	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.00	38.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75184	1.20	70500	**106.6**	30	-	125	
45	Sc	1	1786524	1.73	1703000	**104.9**	30	-	125	
74	Ge	1	3878771	0.77	3864000	**100.4**	30	-	125	
103	Rh	1	4909578	0.07	5496000	**89.3**	30	-	125	
165	Ho	1	2381402	0.33	2487000	**95.8**	30	-	125	
175	Lu	1	2005118	1.28	2103000	**95.3**	30	-	125	
209	Bi	1	2207736	3.41	2573000	**85.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\013SMPL.D\013SMPL.D#
Date Acquired: Sep 13 2011 05:16 pm Acq. Method: 00He_ALL.M
Sample Name: ICSAB Vial Number: 1102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	577.2	900	6	P	
23	**Na**	1	**49220.000**	ug/l	49,220.00	1.0	450000	6	A	
24	**Mg**	1	**19470.000**	ug/l	19,470.00	2.0	450000	6	A	
27	**Al**	1	**18590.000**	ug/l	18,590.00	1.6	450000	6	A	
31	**P**	1	**20030.000**	ug/l	20,030.00	1.1	450000	6	A	
39	**K**	1	**20020.000**	ug/l	20,020.00	1.5	450000	45	A	
44	**Ca**	1	**57490.000**	ug/l	57,490.00	1.7	450000	45	A	
47	**Ti**	1	**397.000**	ug/l	397.00	1.7	4500	45	P	
51	**V**	1	**39.970**	ug/l	39.97	1.6	4500	45	P	
52	**Cr**	1	**40.550**	ug/l	40.55	1.9	4500	45	P	
55	**Mn**	1	**39.560**	ug/l	39.56	2.9	4500	45	P	
57	**Fe**	1	**49200.000**	ug/l	49,200.00	0.8	450000	74	A	
59	**Co**	1	**40.910**	ug/l	40.91	1.7	4500	74	P	
60	**Ni**	1	**41.480**	ug/l	41.48	2.1	4500	74	P	
63	**Cu**	1	**40.390**	ug/l	40.39	1.6	4500	74	P	
66	**Zn**	1	**21.010**	ug/l	21.01	1.2	4500	74	P	
75	**As**	1	**21.360**	ug/l	21.36	1.4	4500	74	P	
78	**Se**	1	**20.700**	ug/l	20.70	0.5	4500	74	P	
88	**Sr**	1	**-0.685**	ug/l	-0.69	6.5	4500	74	P	
95	**Mo**	1	**439.500**	ug/l	439.50	0.9	4500	103	A	
109	**Ag**	1	**10.350**	ug/l	10.35	2.2	4500	103	P	
111	**Cd**	1	**21.290**	ug/l	21.29	2.3	4500	103	P	
118	**Sn**	1	**0.106**	ug/l	0.11	12.8	4500	103	P	
123	**Sb**	1	**0.153**	ug/l	0.15	6.4	4500	103	P	
135	**Ba**	1	**0.152**	ug/l	0.15	1.6	4500	103	P	
200	**Hg**	1	**0.022**	ug/l	0.02	18.9	45	209	P	
205	**Tl**	1	**0.054**	ug/l	0.05	6.9	4500	209	P	
208	**Pb**	1	**0.121**	ug/l	0.12	21.9	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.00	21.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74527	0.47	70500	**105.7**	30	-	125	
45	Sc	1	1786808	1.96	1703000	**104.9**	30	-	125	
74	Ge	1	3859815	1.46	3864000	**99.9**	30	-	125	
103	Rh	1	4931720	0.77	5496000	**89.7**	30	-	125	
165	Ho	1	2357334	2.42	2487000	**94.8**	30	-	125	
175	Lu	1	1983034	0.84	2103000	**94.3**	30	-	125	
209	Bi	1	2209105	3.12	2573000	**85.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\014SMPL.D\014SMPL.D#
Date Acquired: Sep 13 2011 05:20 pm Acq. Method: 00He_ALL.M
Sample Name: 5000 PPB (As, Pb) LDR STD Vial Number: 1202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	0.00	303.4	900	6	P	
23	**Na**	1	**12.630**	ug/l	12.63	12.9	450000	6	P	
24	**Mg**	1	**2.797**	ug/l	2.80	6.2	450000	6	P	
27	**Al**	1	**3.676**	ug/l	3.68	3.8	450000	6	P	
31	**P**	1	**1.789**	ug/l	1.79	126.3	450000	6	P	
39	**K**	1	**4.679**	ug/l	4.68	73.8	450000	45	P	
44	**Ca**	1	**15.260**	ug/l	15.26	7.1	450000	45	P	
47	**Ti**	1	**0.166**	ug/l	0.17	6.8	4500	45	P	
51	**V**	1	**-0.006**	ug/l	-0.01	334.8	4500	45	P	
52	**Cr**	1	**0.215**	ug/l	0.22	7.3	4500	45	P	
55	**Mn**	1	**0.306**	ug/l	0.31	5.2	4500	45	P	
57	**Fe**	1	**11.760**	ug/l	11.76	7.3	450000	74	P	
59	**Co**	1	**0.005**	ug/l	0.00	24.1	4500	74	P	
60	**Ni**	1	**0.217**	ug/l	0.22	6.4	4500	74	P	
63	**Cu**	1	**0.240**	ug/l	0.24	2.3	4500	74	P	
66	**Zn**	1	**2.528**	ug/l	2.53	2.8	4500	74	P	
75	**As**	1	**5069.000**	ug/l	5,069.00	1.0	4500	74	A	Fail
78	**Se**	1	**0.121**	ug/l	0.12	18.3	4500	74	P	
88	**Sr**	1	**0.025**	ug/l	0.03	13.5	4500	74	P	
95	**Mo**	1	**0.782**	ug/l	0.78	13.0	4500	103	P	
109	**Ag**	1	**0.005**	ug/l	0.00	53.3	4500	103	P	
111	**Cd**	1	**0.020**	ug/l	0.02	46.3	4500	103	P	
118	**Sn**	1	**0.159**	ug/l	0.16	0.3	4500	103	P	
123	**Sb**	1	**0.004**	ug/l	0.00	81.2	4500	103	P	
135	**Ba**	1	**0.211**	ug/l	0.21	16.0	4500	103	P	
200	**Hg**	1	**0.008**	ug/l	0.01	47.8	45	209	P	
205	**Tl**	1	**0.249**	ug/l	0.25	3.2	4500	209	P	
208	**Pb**	1	**5115.000**	ug/l	5,115.00	1.1	4500	209	A	Fail
238	**U**	1	**0.001**	ug/l	0.00	57.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71472	1.71	70500	**101.4**	30	-	125	
45	Sc	1	1736053	2.07	1703000	**101.9**	30	-	125	
74	Ge	1	3883425	1.58	3864000	**100.5**	30	-	125	
103	Rh	1	5534797	1.27	5496000	**100.7**	30	-	125	
165	Ho	1	2501995	0.81	2487000	**100.6**	30	-	125	
175	Lu	1	2087749	1.79	2103000	**99.3**	30	-	125	
209	Bi	1	2583179	1.36	2573000	**100.4**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\015SMPL.D\015SMPL.D#
Date Acquired: Sep 13 2011 05:25 pm Acq. Method: 00He_ALL.M
Sample Name: 1000 PPB LDR STD Vial Number: 1201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**995.300**	ug/l	995.30	1.3	900	6	P	Fail
23	**Na**	1	**8.948**	ug/l	8.95	8.8	450000	6	P	
24	**Mg**	1	**1.120**	ug/l	1.12	10.4	450000	6	P	
27	**Al**	1	**7.236**	ug/l	7.24	3.3	450000	6	P	
31	**P**	1	**-0.752**	ug/l	-0.75	183.0	450000	6	P	
39	**K**	1	**7.193**	ug/l	7.19	34.9	450000	45	P	
44	**Ca**	1	**8.964**	ug/l	8.96	5.4	450000	45	P	
47	**Ti**	1	**0.057**	ug/l	0.06	26.9	4500	45	P	
51	**V**	1	**1046.000**	ug/l	1,046.00	1.9	4500	45	A	
52	**Cr**	1	**1067.000**	ug/l	1,067.00	2.1	4500	45	A	
55	**Mn**	1	**1026.000**	ug/l	1,026.00	1.3	4500	45	A	
57	**Fe**	1	**5.320**	ug/l	5.32	16.1	450000	74	P	
59	**Co**	1	**1010.000**	ug/l	1,010.00	1.9	4500	74	A	
60	**Ni**	1	**1025.000**	ug/l	1,025.00	0.9	4500	74	A	
63	**Cu**	1	**1059.000**	ug/l	1,059.00	1.1	4500	74	A	
66	**Zn**	1	**988.100**	ug/l	988.10	1.8	4500	74	A	
75	**As**	1	**992.400**	ug/l	992.40	0.6	4500	74	A	
78	**Se**	1	**1006.000**	ug/l	1,006.00	1.2	4500	74	P	
88	**Sr**	1	**0.026**	ug/l	0.03	40.7	4500	74	P	
95	**Mo**	1	**0.218**	ug/l	0.22	28.4	4500	103	P	
109	**Ag**	1	**0.006**	ug/l	0.01	34.3	4500	103	P	
111	**Cd**	1	**1017.000**	ug/l	1,017.00	1.4	4500	103	A	
118	**Sn**	1	**0.105**	ug/l	0.10	15.2	4500	103	P	
123	**Sb**	1	**0.030**	ug/l	0.03	47.1	4500	103	P	
135	**Ba**	1	**1005.000**	ug/l	1,005.00	2.9	4500	103	A	
200	**Hg**	1	**0.014**	ug/l	0.01	17.2	45	209	P	
205	**Tl**	1	**0.068**	ug/l	0.07	3.0	4500	209	P	
208	**Pb**	1	**1014.000**	ug/l	1,014.00	1.2	4500	209	A	
238	**U**	1	**0.004**	ug/l	0.00	30.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70323	0.62	70500	**99.7**	30	-	125	
45	Sc	1	1709410	2.66	1703000	**100.4**	30	-	125	
74	Ge	1	3928593	1.48	3864000	**101.7**	30	-	125	
103	Rh	1	5465865	2.15	5496000	**99.5**	30	-	125	
165	Ho	1	2491774	1.80	2487000	**100.2**	30	-	125	
175	Lu	1	2093926	1.74	2103000	**99.6**	30	-	125	
209	Bi	1	2534736	1.53	2573000	**98.5**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\016SMPL.D\016SMPL.D#
Date Acquired: Sep 13 2011 05:29 pm Acq. Method: 00He_ALL.M
Sample Name: 250 PPM (Al) Vial Number: 1204
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.135**	ug/l	0.13	16.2	900	6	P	
23	**Na**	1	**-1.085**	ug/l	-1.09	198.3	450000	6	P	
24	**Mg**	1	**0.496**	ug/l	0.50	19.8	450000	6	P	
27	**Al**	1	**238000.000**	ug/l	238,000.00	1.5	450000	6	A	
31	**P**	1	**-0.568**	ug/l	-0.57	316.0	450000	6	P	
39	**K**	1	**1.320**	ug/l	1.32	345.5	450000	45	P	
44	**Ca**	1	**14.550**	ug/l	14.55	3.6	450000	45	P	
47	**Ti**	1	**0.066**	ug/l	0.07	26.6	4500	45	P	
51	**V**	1	**0.089**	ug/l	0.09	34.8	4500	45	P	
52	**Cr**	1	**0.112**	ug/l	0.11	16.4	4500	45	P	
55	**Mn**	1	**0.165**	ug/l	0.17	15.0	4500	45	P	
57	**Fe**	1	**2.811**	ug/l	2.81	12.0	450000	74	P	
59	**Co**	1	**0.109**	ug/l	0.11	16.8	4500	74	P	
60	**Ni**	1	**0.308**	ug/l	0.31	8.5	4500	74	P	
63	**Cu**	1	**0.234**	ug/l	0.23	5.8	4500	74	P	
66	**Zn**	1	**0.965**	ug/l	0.97	4.9	4500	74	P	
75	**As**	1	**0.359**	ug/l	0.36	10.3	4500	74	P	
78	**Se**	1	**0.338**	ug/l	0.34	19.6	4500	74	P	
88	**Sr**	1	**0.019**	ug/l	0.02	24.2	4500	74	P	
95	**Mo**	1	**0.173**	ug/l	0.17	6.2	4500	103	P	
109	**Ag**	1	**0.003**	ug/l	0.00	22.9	4500	103	P	
111	**Cd**	1	**0.136**	ug/l	0.14	16.8	4500	103	P	
118	**Sn**	1	**0.064**	ug/l	0.06	21.8	4500	103	P	
123	**Sb**	1	**0.016**	ug/l	0.02	24.7	4500	103	P	
135	**Ba**	1	**0.568**	ug/l	0.57	3.7	4500	103	P	
200	**Hg**	1	**0.034**	ug/l	0.03	21.0	45	209	P	
205	**Tl**	1	**0.063**	ug/l	0.06	6.5	4500	209	P	
208	**Pb**	1	**0.375**	ug/l	0.37	11.5	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	214.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71934	1.58	70500	**102.0**	30	-	125	
45	Sc	1	1746846	3.81	1703000	**102.6**	30	-	125	
74	Ge	1	3802328	1.21	3864000	**98.4**	30	-	125	
103	Rh	1	5046528	0.59	5496000	**91.8**	30	-	125	
165	Ho	1	2388441	0.75	2487000	**96.0**	30	-	125	
175	Lu	1	2016606	0.59	2103000	**95.9**	30	-	125	
209	Bi	1	2313616	2.59	2573000	**89.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\017SMPL.D\017SMPL.D#
Date Acquired: Sep 13 2011 05:33 pm Acq. Method: 00He_ALL.M
Sample Name: 250 PPM (Ca, Fe, Mg, K, P, Na) Vial Number: 1205
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.065**	ug/l	0.07	34.5	900	6	P	
23	**Na**	1	**236600.000**	ug/l	236,600.00	1.9	450000	6	A	
24	**Mg**	1	**229100.000**	ug/l	229,100.00	1.1	450000	6	A	
27	**Al**	1	**60.900**	ug/l	60.90	3.4	450000	6	P	
31	**P**	1	**237100.000**	ug/l	237,100.00	0.2	450000	6	A	
39	**K**	1	**253100.000**	ug/l	253,100.00	2.6	450000	45	A	
44	**Ca**	1	**238200.000**	ug/l	238,200.00	3.3	450000	45	A	
47	**Ti**	1	**60.930**	ug/l	60.93	1.0	4500	45	P	
51	**V**	1	**0.398**	ug/l	0.40	4.2	4500	45	P	
52	**Cr**	1	**2.527**	ug/l	2.53	3.7	4500	45	P	
55	**Mn**	1	**14.960**	ug/l	14.96	2.6	4500	45	P	
57	**Fe**	1	**247700.000**	ug/l	247,700.00	1.1	450000	74	A	
59	**Co**	1	**3.676**	ug/l	3.68	0.8	4500	74	P	
60	**Ni**	1	**4.445**	ug/l	4.45	2.0	4500	74	P	
63	**Cu**	1	**1.368**	ug/l	1.37	1.6	4500	74	P	
66	**Zn**	1	**2.667**	ug/l	2.67	2.5	4500	74	P	
75	**As**	1	**0.837**	ug/l	0.84	2.5	4500	74	P	
78	**Se**	1	**0.327**	ug/l	0.33	17.7	4500	74	P	
88	**Sr**	1	**-13.980**	ug/l	-13.98	0.5	4500	74	P	
95	**Mo**	1	**0.804**	ug/l	0.80	1.0	4500	103	P	
109	**Ag**	1	**0.036**	ug/l	0.04	1.5	4500	103	P	
111	**Cd**	1	**0.665**	ug/l	0.67	8.3	4500	103	P	
118	**Sn**	1	**0.356**	ug/l	0.36	3.2	4500	103	P	
123	**Sb**	1	**1.113**	ug/l	1.11	3.3	4500	103	P	
135	**Ba**	1	**0.859**	ug/l	0.86	5.2	4500	103	P	
200	**Hg**	1	**0.019**	ug/l	0.02	5.6	45	209	P	
205	**Tl**	1	**0.069**	ug/l	0.07	10.1	4500	209	P	
208	**Pb**	1	**0.734**	ug/l	0.73	1.5	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.00	41.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71394	0.57	70500	**101.3**	30	-	125	
45	Sc	1	1630362	3.59	1703000	**95.7**	30	-	125	
74	Ge	1	3341766	0.70	3864000	**86.5**	30	-	125	
103	Rh	1	4168883	0.44	5496000	**75.9**	30	-	125	
165	Ho	1	2017230	1.03	2487000	**81.1**	30	-	125	
175	Lu	1	1662137	1.55	2103000	**79.0**	30	-	125	
209	Bi	1	1781641	1.77	2573000	**69.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\021SMPL.D\021SMPL.D#
Date Acquired: Sep 13 2011 05:51 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**51.030**	ug/l	51.03	3.1	900	6	P	
23	Na	1	**5199.000**	ug/l	5,199.00	1.4	450000	6	A	
24	Mg	1	**5185.000**	ug/l	5,185.00	1.4	450000	6	A	
27	Al	1	**521.000**	ug/l	521.00	1.6	450000	6	P	
31	P	1	**5227.000**	ug/l	5,227.00	2.7	450000	6	P	
39	K	1	**5029.000**	ug/l	5,029.00	1.6	450000	45	A	
44	Ca	1	**4980.000**	ug/l	4,980.00	2.1	450000	45	P	
47	Ti	1	**49.500**	ug/l	49.50	2.1	4500	45	P	
51	V	1	**50.090**	ug/l	50.09	2.3	4500	45	P	
52	Cr	1	**50.720**	ug/l	50.72	2.9	4500	45	P	
55	Mn	1	**50.960**	ug/l	50.96	1.5	4500	45	P	
57	Fe	1	**4910.000**	ug/l	4,910.00	1.2	450000	74	A	
59	Co	1	**47.650**	ug/l	47.65	1.1	4500	74	P	
60	Ni	1	**48.410**	ug/l	48.41	1.8	4500	74	P	
63	Cu	1	**48.800**	ug/l	48.80	1.3	4500	74	P	
66	Zn	1	**48.870**	ug/l	48.87	0.7	4500	74	P	
75	As	1	**48.720**	ug/l	48.72	0.8	4500	74	P	
78	Se	1	**48.300**	ug/l	48.30	0.6	4500	74	P	
88	Sr	1	**49.410**	ug/l	49.41	0.8	4500	74	P	
95	Mo	1	**48.410**	ug/l	48.41	1.0	4500	103	P	
109	Ag	1	**49.180**	ug/l	49.18	1.5	4500	103	P	
111	Cd	1	**49.410**	ug/l	49.41	2.1	4500	103	P	
118	Sn	1	**49.040**	ug/l	49.04	1.6	4500	103	P	
123	Sb	1	**49.830**	ug/l	49.83	1.2	4500	103	P	
135	Ba	1	**48.750**	ug/l	48.75	0.9	4500	103	P	
200	Hg	1	**2.450**	ug/l	2.45	2.6	45	209	P	
205	Tl	1	**48.590**	ug/l	48.59	2.8	4500	209	A	
208	Pb	1	**49.470**	ug/l	49.47	1.4	4500	209	P	
238	U	1	**50.120**	ug/l	50.12	1.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	58463	1.94	70500	**82.9**	30	-	125	
45	Sc	1	1606517	2.70	1703000	**94.3**	30	-	125	
74	Ge	1	3861944	1.04	3864000	**99.9**	30	-	125	
103	Rh	1	5378428	1.02	5496000	**97.9**	30	-	125	
165	Ho	1	2504056	1.56	2487000	**100.7**	30	-	125	
175	Lu	1	2100185	0.75	2103000	**99.9**	30	-	125	
209	Bi	1	2535090	0.63	2573000	**98.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\022SMPL.D\022SMPL.D#
Date Acquired: Sep 13 2011 05:55 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.013**	ug/l	0.01	138.6	900	6	P	
23	**Na**	1	**23.000**	ug/l	23.00	6.2	450000	6	P	
24	**Mg**	1	**0.961**	ug/l	0.96	11.2	450000	6	P	
27	**Al**	1	**0.046**	ug/l	0.05	185.4	450000	6	P	
31	**P**	1	**0.111**	ug/l	0.11	2673.6	450000	6	P	
39	**K**	1	**-0.276**	ug/l	-0.28	513.0	450000	45	P	
44	**Ca**	1	**0.109**	ug/l	0.11	279.9	450000	45	P	
47	**Ti**	1	**0.014**	ug/l	0.01	42.1	4500	45	P	
51	**V**	1	**0.000**	ug/l	0.00	3879.7	4500	45	P	
52	**Cr**	1	**-0.006**	ug/l	-0.01	302.8	4500	45	P	
55	**Mn**	1	**-0.001**	ug/l	0.00	274.6	4500	45	P	
57	**Fe**	1	**1.857**	ug/l	1.86	24.8	450000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	50.9	4500	74	P	
60	**Ni**	1	**0.001**	ug/l	0.00	88.9	4500	74	P	
63	**Cu**	1	**0.029**	ug/l	0.03	44.3	4500	74	P	
66	**Zn**	1	**-0.008**	ug/l	-0.01	141.3	4500	74	P	
75	**As**	1	**0.013**	ug/l	0.01	122.4	4500	74	P	
78	**Se**	1	**0.068**	ug/l	0.07	120.2	4500	74	P	
88	**Sr**	1	**0.000**	ug/l	0.00	69642.0	4500	74	P	
95	**Mo**	1	**0.106**	ug/l	0.11	17.9	4500	103	P	
109	**Ag**	1	**0.004**	ug/l	0.00	61.3	4500	103	P	
111	**Cd**	1	**0.013**	ug/l	0.01	50.4	4500	103	P	
118	**Sn**	1	**0.168**	ug/l	0.17	22.1	4500	103	P	
123	**Sb**	1	**0.049**	ug/l	0.05	19.7	4500	103	P	
135	**Ba**	1	**0.010**	ug/l	0.01	19.8	4500	103	P	
200	**Hg**	1	**0.014**	ug/l	0.01	2.1	45	209	P	
205	**Tl**	1	**0.206**	ug/l	0.21	3.6	4500	209	P	
208	**Pb**	1	**0.015**	ug/l	0.01	48.9	4500	209	P	
238	**U**	1	**0.012**	ug/l	0.01	29.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57605	1.40	70500	**81.7**	30	-	125	
45	Sc	1	1616668	1.03	1703000	**94.9**	30	-	125	
74	Ge	1	3815214	0.83	3864000	**98.7**	30	-	125	
103	Rh	1	5491060	0.81	5496000	**99.9**	30	-	125	
165	Ho	1	2478884	0.71	2487000	**99.7**	30	-	125	
175	Lu	1	2092400	1.79	2103000	**99.5**	30	-	125	
209	Bi	1	2592807	1.65	2573000	**100.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\023SMPL.D\023SMPL.D#
Date Acquired: Sep 13 2011 06:00 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-95118/16-A Vial Number: 2501
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.015**	ug/l	0.15	10.8	900	6	P	
23	**Na**	1	**28.820**	ug/l	288.20	9.1	450000	6	P	
24	**Mg**	1	**2.858**	ug/l	28.58	1.6	450000	6	P	
27	**Al**	1	**1.378**	ug/l	13.78	19.2	450000	6	P	
31	**P**	1	**2.919**	ug/l	29.19	42.3	450000	6	P	
39	**K**	1	**2.704**	ug/l	27.04	93.3	450000	45	P	
44	**Ca**	1	**7.882**	ug/l	78.82	5.1	450000	45	P	
47	**Ti**	1	**0.056**	ug/l	0.56	21.5	4500	45	P	
51	**V**	1	**0.004**	ug/l	0.04	180.1	4500	45	P	
52	**Cr**	1	**0.098**	ug/l	0.98	7.8	4500	45	P	
55	**Mn**	1	**0.039**	ug/l	0.39	12.3	4500	45	P	
57	**Fe**	1	**4.154**	ug/l	41.54	11.2	450000	74	P	
59	**Co**	1	**0.004**	ug/l	0.04	34.5	4500	74	P	
60	**Ni**	1	**0.138**	ug/l	1.38	12.8	4500	74	P	
63	**Cu**	1	**0.092**	ug/l	0.92	9.6	4500	74	P	
66	**Zn**	1	**0.239**	ug/l	2.39	11.3	4500	74	P	
75	**As**	1	**-0.021**	ug/l	-0.21	14.4	4500	74	P	
78	**Se**	1	**0.057**	ug/l	0.57	59.1	4500	74	P	
88	**Sr**	1	**0.034**	ug/l	0.34	17.4	4500	74	P	
95	**Mo**	1	**0.049**	ug/l	0.49	15.0	4500	103	P	
109	**Ag**	1	**0.001**	ug/l	0.01	222.8	4500	103	P	
111	**Cd**	1	**0.013**	ug/l	0.13	41.8	4500	103	P	
118	**Sn**	1	**0.081**	ug/l	0.81	26.7	4500	103	P	
123	**Sb**	1	**0.018**	ug/l	0.18	60.0	4500	103	P	
135	**Ba**	1	**0.045**	ug/l	0.45	53.9	4500	103	P	
200	**Hg**	1	**0.006**	ug/l	0.06	39.7	45	209	P	
205	**Tl**	1	**0.067**	ug/l	0.67	14.5	4500	209	P	
208	**Pb**	1	**0.005**	ug/l	0.05	37.9	4500	209	P	
238	**U**	1	**0.004**	ug/l	0.04	19.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56528	1.88	70500	**80.2**	30	-	125	
45	Sc	1	1594349	1.50	1703000	**93.6**	30	-	125	
74	Ge	1	3842487	1.75	3864000	**99.4**	30	-	125	
103	Rh	1	5388569	1.42	5496000	**98.0**	30	-	125	
165	Ho	1	2509734	0.24	2487000	**100.9**	30	-	125	
175	Lu	1	2098945	0.96	2103000	**99.8**	30	-	125	
209	Bi	1	2587631	1.54	2573000	**100.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\024SMPL.D\024SMPL.D#
Date Acquired: Sep 13 2011 06:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-11-A SD Vial Number: 2502
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.039**	ug/l	1.96	31.3	900	6	P	
23	**Na**	1	**52.060**	ug/l	2,603.00	4.1	450000	6	P	
24	**Mg**	1	**539.200**	ug/l	26,960.00	1.3	450000	6	P	
27	**Al**	1	**2916.000**	ug/l	145,800.00	0.7	450000	6	A	
31	**P**	1	**74.490**	ug/l	3,724.50	4.8	450000	6	P	
39	**K**	1	**150.700**	ug/l	7,535.00	4.5	450000	45	P	
44	**Ca**	1	**208.400**	ug/l	10,420.00	1.8	450000	45	P	
47	**Ti**	1	**251.600**	ug/l	12,580.00	1.4	4500	45	P	
51	**V**	1	**16.340**	ug/l	817.00	3.1	4500	45	P	
52	**Cr**	1	**3.743**	ug/l	187.15	2.8	4500	45	P	
55	**Mn**	1	**53.660**	ug/l	2,683.00	2.0	4500	45	P	
57	**Fe**	1	**5942.000**	ug/l	297,100.00	2.7	450000	74	A	
59	**Co**	1	**1.337**	ug/l	66.85	2.7	4500	74	P	
60	**Ni**	1	**2.042**	ug/l	102.10	1.3	4500	74	P	
63	**Cu**	1	**4.939**	ug/l	246.95	2.8	4500	74	P	
66	**Zn**	1	**7.545**	ug/l	377.25	3.5	4500	74	P	
75	**As**	1	**3.816**	ug/l	190.80	2.0	4500	74	P	
78	**Se**	1	**0.175**	ug/l	8.73	20.9	4500	74	P	
88	**Sr**	1	**1.875**	ug/l	93.75	1.8	4500	74	P	
95	**Mo**	1	**0.683**	ug/l	34.15	1.7	4500	103	P	
109	**Ag**	1	**0.098**	ug/l	4.88	11.0	4500	103	P	
111	**Cd**	1	**0.085**	ug/l	4.27	15.9	4500	103	P	
118	**Sn**	1	**0.365**	ug/l	18.27	4.3	4500	103	P	
123	**Sb**	1	**0.144**	ug/l	7.21	17.1	4500	103	P	
135	**Ba**	1	**8.146**	ug/l	407.30	3.4	4500	103	P	
200	**Hg**	1	**0.032**	ug/l	1.61	6.5	45	209	P	
205	**Tl**	1	**0.066**	ug/l	3.28	5.5	4500	209	P	
208	**Pb**	1	**3.624**	ug/l	181.20	5.0	4500	209	P	
238	**U**	1	**0.080**	ug/l	4.02	5.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66271	0.90	70500	**94.0**	30	-	125	
45	Sc	1	1738708	2.08	1703000	**102.1**	30	-	125	
74	Ge	1	3933655	1.28	3864000	**101.8**	30	-	125	
103	Rh	1	5492905	1.98	5496000	**99.9**	30	-	125	
165	Ho	1	2485495	0.63	2487000	**99.9**	30	-	125	
175	Lu	1	2116136	0.79	2103000	**100.6**	30	-	125	
209	Bi	1	2504286	2.95	2573000	**97.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\025SMPL.D\025SMPL.D#
Date Acquired: Sep 13 2011 06:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-11-A Vial Number: 2503
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.170**	ug/l	1.70	12.9	900	6	P	
23	**Na**	1	**250.600**	ug/l	2,506.00	2.9	450000	6	P	
24	**Mg**	1	**2513.000**	ug/l	25,130.00	2.1	450000	6	A	
27	**Al**	1	**13870.000**	ug/l	138,700.00	3.2	450000	6	A	
31	**P**	1	**352.600**	ug/l	3,526.00	1.0	450000	6	P	
39	**K**	1	**718.800**	ug/l	7,188.00	4.5	450000	45	A	
44	**Ca**	1	**963.900**	ug/l	9,639.00	2.8	450000	45	P	
47	**Ti**	1	**1181.000**	ug/l	11,810.00	2.3	4500	45	P	
51	**V**	1	**77.660**	ug/l	776.60	2.9	4500	45	P	
52	**Cr**	1	**17.540**	ug/l	175.40	2.9	4500	45	P	
55	**Mn**	1	**251.500**	ug/l	2,515.00	3.1	4500	45	A	
57	**Fe**	1	**25990.000**	ug/l	259,900.00	0.3	450000	74	A	
59	**Co**	1	**6.037**	ug/l	60.37	0.5	4500	74	P	
60	**Ni**	1	**9.375**	ug/l	93.75	1.3	4500	74	P	
63	**Cu**	1	**21.330**	ug/l	213.30	1.5	4500	74	P	
66	**Zn**	1	**34.220**	ug/l	342.20	2.1	4500	74	P	
75	**As**	1	**17.400**	ug/l	174.00	2.5	4500	74	P	
78	**Se**	1	**0.592**	ug/l	5.92	17.2	4500	74	P	
88	**Sr**	1	**8.906**	ug/l	89.06	0.7	4500	74	P	
95	**Mo**	1	**3.217**	ug/l	32.17	4.5	4500	103	P	
109	**Ag**	1	**0.504**	ug/l	5.04	7.7	4500	103	P	
111	**Cd**	1	**0.329**	ug/l	3.29	2.5	4500	103	P	
118	**Sn**	1	**1.499**	ug/l	14.99	3.7	4500	103	P	
123	**Sb**	1	**0.656**	ug/l	6.56	2.8	4500	103	P	
135	**Ba**	1	**38.440**	ug/l	384.40	1.9	4500	103	P	
200	**Hg**	1	**0.134**	ug/l	1.34	4.2	45	209	P	
205	**Tl**	1	**0.134**	ug/l	1.34	2.0	4500	209	P	
208	**Pb**	1	**16.250**	ug/l	162.50	2.4	4500	209	P	
238	**U**	1	**0.368**	ug/l	3.68	0.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57701	1.54	70500	**81.8**	30	-	125	
45	Sc	1	1606852	2.63	1703000	**94.4**	30	-	125	
74	Ge	1	3816111	0.63	3864000	**98.8**	30	-	125	
103	Rh	1	5301169	0.97	5496000	**96.5**	30	-	125	
165	Ho	1	2491363	0.37	2487000	**100.2**	30	-	125	
175	Lu	1	2112840	1.62	2103000	**100.5**	30	-	125	
209	Bi	1	2537058	2.10	2573000	**98.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\026SMPL.D\026SMPL.D#
Date Acquired: Sep 13 2011 06:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-11-B DU Vial Number: 2504
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.143**	ug/l	1.43	17.2	900	6	P	
23	**Na**	1	**260.600**	ug/l	2,606.00	1.8	450000	6	P	
24	**Mg**	1	**2607.000**	ug/l	26,070.00	1.4	450000	6	A	
27	**Al**	1	**14330.000**	ug/l	143,300.00	0.9	450000	6	A	
31	**P**	1	**372.400**	ug/l	3,724.00	2.0	450000	6	P	
39	**K**	1	**752.800**	ug/l	7,528.00	4.1	450000	45	A	
44	**Ca**	1	**991.200**	ug/l	9,912.00	0.6	450000	45	P	
47	**Ti**	1	**1220.000**	ug/l	12,200.00	1.4	4500	45	P	
51	**V**	1	**80.300**	ug/l	803.00	1.5	4500	45	P	
52	**Cr**	1	**18.220**	ug/l	182.20	1.9	4500	45	P	
55	**Mn**	1	**257.600**	ug/l	2,576.00	2.6	4500	45	A	
57	**Fe**	1	**27490.000**	ug/l	274,900.00	1.0	450000	74	A	
59	**Co**	1	**6.229**	ug/l	62.29	1.3	4500	74	P	
60	**Ni**	1	**9.961**	ug/l	99.61	0.7	4500	74	P	
63	**Cu**	1	**22.290**	ug/l	222.90	0.5	4500	74	P	
66	**Zn**	1	**36.070**	ug/l	360.70	1.4	4500	74	P	
75	**As**	1	**18.270**	ug/l	182.70	1.0	4500	74	P	
78	**Se**	1	**0.643**	ug/l	6.43	1.2	4500	74	P	
88	**Sr**	1	**9.155**	ug/l	91.55	0.6	4500	74	P	
95	**Mo**	1	**3.407**	ug/l	34.07	1.1	4500	103	P	
109	**Ag**	1	**0.508**	ug/l	5.08	5.7	4500	103	P	
111	**Cd**	1	**0.329**	ug/l	3.29	1.9	4500	103	P	
118	**Sn**	1	**1.579**	ug/l	15.79	1.8	4500	103	P	
123	**Sb**	1	**0.702**	ug/l	7.02	1.7	4500	103	P	
135	**Ba**	1	**40.360**	ug/l	403.60	1.3	4500	103	P	
200	**Hg**	1	**0.142**	ug/l	1.42	5.9	45	209	P	
205	**Tl**	1	**0.133**	ug/l	1.33	2.0	4500	209	P	
208	**Pb**	1	**16.810**	ug/l	168.10	1.4	4500	209	P	
238	**U**	1	**0.383**	ug/l	3.83	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56509	0.77	70500	**80.2**	30	-	125	
45	Sc	1	1589175	1.21	1703000	**93.3**	30	-	125	
74	Ge	1	3721062	0.82	3864000	**96.3**	30	-	125	
103	Rh	1	5271207	1.13	5496000	**95.9**	30	-	125	
165	Ho	1	2502295	0.50	2487000	**100.6**	30	-	125	
175	Lu	1	2107208	1.43	2103000	**100.2**	30	-	125	
209	Bi	1	2506219	0.55	2573000	**97.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\027SMPL.D\027SMPL.D#
Date Acquired: Sep 13 2011 06:17 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-11-C MS Vial Number: 2505
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.247**	ug/l	112.35	3.8	900	6	P	
23	**Na**	1	**557.800**	ug/l	27,890.00	1.8	450000	6	A	
24	**Mg**	1	**882.000**	ug/l	44,100.00	2.3	450000	6	A	
27	**Al**	1	**3163.000**	ug/l	158,150.00	0.5	450000	6	A	
31	**P**	1	**512.000**	ug/l	25,600.00	0.5	450000	6	P	
39	**K**	1	**624.200**	ug/l	31,210.00	5.4	450000	45	A	
44	**Ca**	1	**693.300**	ug/l	34,665.00	3.3	450000	45	P	
47	**Ti**	1	**352.900**	ug/l	17,645.00	3.2	4500	45	P	
51	**V**	1	**37.300**	ug/l	1,865.00	3.8	4500	45	P	
52	**Cr**	1	**12.460**	ug/l	623.00	3.9	4500	45	P	
55	**Mn**	1	**55.160**	ug/l	2,758.00	3.7	4500	45	P	
57	**Fe**	1	**5869.000**	ug/l	293,450.00	1.4	450000	74	A	
59	**Co**	1	**23.260**	ug/l	1,163.00	0.9	4500	74	P	
60	**Ni**	1	**24.740**	ug/l	1,237.00	0.9	4500	74	P	
63	**Cu**	1	**16.240**	ug/l	812.00	0.8	4500	74	P	
66	**Zn**	1	**29.460**	ug/l	1,473.00	1.0	4500	74	P	
75	**As**	1	**92.970**	ug/l	4,648.50	0.4	4500	74	P	
78	**Se**	1	**87.610**	ug/l	4,380.50	1.3	4500	74	P	
88	**Sr**	1	**2.554**	ug/l	127.70	1.4	4500	74	P	
95	**Mo**	1	**109.000**	ug/l	5,450.00	1.6	4500	103	P	
109	**Ag**	1	**13.370**	ug/l	668.50	1.1	4500	103	P	
111	**Cd**	1	**2.325**	ug/l	116.25	2.1	4500	103	P	
118	**Sn**	1	**105.100**	ug/l	5,255.00	1.2	4500	103	P	
123	**Sb**	1	**45.620**	ug/l	2,281.00	2.2	4500	103	P	
135	**Ba**	1	**97.530**	ug/l	4,876.50	3.1	4500	103	P	
200	**Hg**	1	**1.106**	ug/l	55.30	1.6	45	209	P	
205	**Tl**	1	**91.970**	ug/l	4,598.50	2.7	4500	209	A	
208	**Pb**	1	**26.310**	ug/l	1,315.50	3.6	4500	209	P	
238	**U**	1	**0.078**	ug/l	3.91	8.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63491	1.08	70500	**90.1**	30	-	125	
45	Sc	1	1699349	3.22	1703000	**99.8**	30	-	125	
74	Ge	1	3922398	0.52	3864000	**101.5**	30	-	125	
103	Rh	1	5434350	1.65	5496000	**98.9**	30	-	125	
165	Ho	1	2488138	0.70	2487000	**100.0**	30	-	125	
175	Lu	1	2096252	1.33	2103000	**99.7**	30	-	125	
209	Bi	1	2495087	3.01	2573000	**97.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\028SMPL.D\028SMPL.D#
Date Acquired: Sep 13 2011 06:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-11-D MSD Vial Number: 2506
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.594**	ug/l	129.70	1.5	900	6	P	
23	**Na**	1	**652.300**	ug/l	32,615.00	0.1	450000	6	A	
24	**Mg**	1	**1020.000**	ug/l	51,000.00	1.7	450000	6	A	
27	**Al**	1	**3620.000**	ug/l	181,000.00	1.8	450000	6	A	
31	**P**	1	**581.200**	ug/l	29,060.00	0.5	450000	6	P	
39	**K**	1	**709.500**	ug/l	35,475.00	3.4	450000	45	A	
44	**Ca**	1	**800.100**	ug/l	40,005.00	3.4	450000	45	P	
47	**Ti**	1	**404.800**	ug/l	20,240.00	3.9	4500	45	P	
51	**V**	1	**43.430**	ug/l	2,171.50	4.8	4500	45	P	
52	**Cr**	1	**13.930**	ug/l	696.50	3.8	4500	45	P	
55	**Mn**	1	**67.520**	ug/l	3,376.00	3.6	4500	45	P	
57	**Fe**	1	**7061.000**	ug/l	353,050.00	1.9	450000	74	A	
59	**Co**	1	**26.190**	ug/l	1,309.50	2.5	4500	74	P	
60	**Ni**	1	**27.650**	ug/l	1,382.50	2.3	4500	74	P	
63	**Cu**	1	**19.030**	ug/l	951.50	1.3	4500	74	P	
66	**Zn**	1	**44.040**	ug/l	2,202.00	1.6	4500	74	P	
75	**As**	1	**105.300**	ug/l	5,265.00	2.4	4500	74	P	
78	**Se**	1	**100.600**	ug/l	5,030.00	1.8	4500	74	P	
88	**Sr**	1	**3.106**	ug/l	155.30	5.6	4500	74	P	
95	**Mo**	1	**124.800**	ug/l	6,240.00	1.5	4500	103	P	
109	**Ag**	1	**15.200**	ug/l	760.00	2.6	4500	103	P	
111	**Cd**	1	**2.606**	ug/l	130.30	3.4	4500	103	P	
118	**Sn**	1	**120.100**	ug/l	6,005.00	2.1	4500	103	P	
123	**Sb**	1	**51.770**	ug/l	2,588.50	2.3	4500	103	P	
135	**Ba**	1	**110.000**	ug/l	5,500.00	1.9	4500	103	P	
200	**Hg**	1	**1.263**	ug/l	63.15	3.7	45	209	P	
205	**Tl**	1	**106.200**	ug/l	5,310.00	2.5	4500	209	A	
208	**Pb**	1	**30.780**	ug/l	1,539.00	4.6	4500	209	P	
238	**U**	1	**0.089**	ug/l	4.45	7.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62922	1.38	70500	**89.3**	30	-	125	
45	Sc	1	1688398	3.25	1703000	**99.1**	30	-	125	
74	Ge	1	3872734	1.61	3864000	**100.2**	30	-	125	
103	Rh	1	5400143	0.88	5496000	**98.3**	30	-	125	
165	Ho	1	2518377	1.00	2487000	**101.3**	30	-	125	
175	Lu	1	2090156	1.51	2103000	**99.4**	30	-	125	
209	Bi	1	2500714	3.29	2573000	**97.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\029SMPL.D\029SMPL.D#
Date Acquired: Sep 13 2011 06:26 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-11-A PDS Vial Number: 2507
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.223**	ug/l	111.15	7.5	900	6	P	
23	**Na**	1	**549.300**	ug/l	27,465.00	2.8	450000	6	A	
24	**Mg**	1	**860.300**	ug/l	43,015.00	2.8	450000	6	A	
27	**Al**	1	**3116.000**	ug/l	155,800.00	1.4	450000	6	A	
31	**P**	1	**493.800**	ug/l	24,690.00	3.6	450000	6	P	
39	**K**	1	**618.100**	ug/l	30,905.00	2.4	450000	45	A	
44	**Ca**	1	**677.100**	ug/l	33,855.00	1.1	450000	45	P	
47	**Ti**	1	**344.900**	ug/l	17,245.00	1.7	4500	45	P	
51	**V**	1	**36.660**	ug/l	1,833.00	1.6	4500	45	P	
52	**Cr**	1	**12.120**	ug/l	606.00	1.2	4500	45	P	
55	**Mn**	1	**53.840**	ug/l	2,692.00	1.8	4500	45	P	
57	**Fe**	1	**5695.000**	ug/l	284,750.00	1.0	450000	74	A	
59	**Co**	1	**22.630**	ug/l	1,131.50	1.4	4500	74	P	
60	**Ni**	1	**23.870**	ug/l	1,193.50	1.3	4500	74	P	
63	**Cu**	1	**15.910**	ug/l	795.50	1.6	4500	74	P	
66	**Zn**	1	**28.870**	ug/l	1,443.50	1.9	4500	74	P	
75	**As**	1	**90.960**	ug/l	4,548.00	1.6	4500	74	P	
78	**Se**	1	**86.490**	ug/l	4,324.50	1.9	4500	74	P	
88	**Sr**	1	**2.335**	ug/l	116.75	1.0	4500	74	P	
95	**Mo**	1	**106.400**	ug/l	5,320.00	1.3	4500	103	P	
109	**Ag**	1	**13.060**	ug/l	653.00	1.5	4500	103	P	
111	**Cd**	1	**2.269**	ug/l	113.45	3.6	4500	103	P	
118	**Sn**	1	**102.300**	ug/l	5,115.00	1.8	4500	103	P	
123	**Sb**	1	**44.230**	ug/l	2,211.50	2.4	4500	103	P	
135	**Ba**	1	**94.940**	ug/l	4,747.00	1.0	4500	103	P	
200	**Hg**	1	**1.082**	ug/l	54.10	2.1	45	209	P	
205	**Tl**	1	**90.210**	ug/l	4,510.50	3.1	4500	209	A	
208	**Pb**	1	**25.510**	ug/l	1,275.50	3.5	4500	209	P	
238	**U**	1	**0.075**	ug/l	3.76	7.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63926	1.10	70500	**90.7**	30	-	125	
45	Sc	1	1689487	2.01	1703000	**99.2**	30	-	125	
74	Ge	1	3903281	1.62	3864000	**101.0**	30	-	125	
103	Rh	1	5402981	1.08	5496000	**98.3**	30	-	125	
165	Ho	1	2505881	0.90	2487000	**100.8**	30	-	125	
175	Lu	1	2096747	3.24	2103000	**99.7**	30	-	125	
209	Bi	1	2511551	3.15	2573000	**97.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\030SMPL.D\030SMPL.D#
Date Acquired: Sep 13 2011 06:30 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95118/17-A Vial Number: 2508
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.091**	ug/l	104.55	4.6	900	6	P	
23	**Na**	1	**458.700**	ug/l	22,935.00	2.4	450000	6	A	
24	**Mg**	1	**446.200**	ug/l	22,310.00	0.1	450000	6	P	
27	**Al**	1	**86.480**	ug/l	4,324.00	1.9	450000	6	P	
31	**P**	1	**421.400**	ug/l	21,070.00	2.3	450000	6	P	
39	**K**	1	**407.900**	ug/l	20,395.00	1.2	450000	45	P	
44	**Ca**	1	**405.000**	ug/l	20,250.00	0.7	450000	45	P	
47	**Ti**	1	**96.370**	ug/l	4,818.50	1.7	4500	45	P	
51	**V**	1	**19.920**	ug/l	996.00	1.9	4500	45	P	
52	**Cr**	1	**8.145**	ug/l	407.25	2.7	4500	45	P	
55	**Mn**	1	**20.500**	ug/l	1,025.00	1.9	4500	45	P	
57	**Fe**	1	**431.600**	ug/l	21,580.00	3.0	450000	74	P	
59	**Co**	1	**19.390**	ug/l	969.50	1.7	4500	74	P	
60	**Ni**	1	**19.810**	ug/l	990.50	0.3	4500	74	P	
63	**Cu**	1	**10.150**	ug/l	507.50	1.8	4500	74	P	
66	**Zn**	1	**21.110**	ug/l	1,055.50	2.2	4500	74	P	
75	**As**	1	**80.440**	ug/l	4,022.00	2.0	4500	74	P	
78	**Se**	1	**78.770**	ug/l	3,938.50	2.4	4500	74	P	
88	**Sr**	1	**-0.003**	ug/l	-0.16	311.8	4500	74	P	
95	**Mo**	1	**98.200**	ug/l	4,910.00	1.8	4500	103	P	
109	**Ag**	1	**12.250**	ug/l	612.50	1.9	4500	103	P	
111	**Cd**	1	**1.862**	ug/l	93.10	6.9	4500	103	P	
118	**Sn**	1	**101.200**	ug/l	5,060.00	2.2	4500	103	P	
123	**Sb**	1	**58.450**	ug/l	2,922.50	2.7	4500	103	P	
135	**Ba**	1	**79.900**	ug/l	3,995.00	0.7	4500	103	P	
200	**Hg**	1	**0.978**	ug/l	48.89	1.5	45	209	P	
205	**Tl**	1	**77.990**	ug/l	3,899.50	1.1	4500	209	A	
208	**Pb**	1	**19.840**	ug/l	992.00	2.5	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.02	78.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56482	0.25	70500	**80.1**	30	-	125	
45	Sc	1	1601107	1.60	1703000	**94.0**	30	-	125	
74	Ge	1	3834602	2.13	3864000	**99.2**	30	-	125	
103	Rh	1	5390396	1.20	5496000	**98.1**	30	-	125	
165	Ho	1	2514421	1.13	2487000	**101.1**	30	-	125	
175	Lu	1	2115939	0.59	2103000	**100.6**	30	-	125	
209	Bi	1	2634996	1.81	2573000	**102.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\031SMPL.D\031SMPL.D#
Date Acquired: Sep 13 2011 06:35 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95118/18-A Vial Number: 2509
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.998**	ug/l	99.90	5.6	900	6	P	
23	Na	1	**460.200**	ug/l	23,010.00	0.8	450000	6	A	
24	Mg	1	**441.700**	ug/l	22,085.00	0.7	450000	6	P	
27	Al	1	**86.470**	ug/l	4,323.50	2.6	450000	6	P	
31	P	1	**410.200**	ug/l	20,510.00	2.3	450000	6	P	
39	K	1	**402.300**	ug/l	20,115.00	1.4	450000	45	P	
44	Ca	1	**397.600**	ug/l	19,880.00	2.2	450000	45	P	
47	Ti	1	**95.390**	ug/l	4,769.50	1.6	4500	45	P	
51	V	1	**19.910**	ug/l	995.50	1.3	4500	45	P	
52	Cr	1	**8.043**	ug/l	402.15	1.6	4500	45	P	
55	Mn	1	**20.370**	ug/l	1,018.50	0.8	4500	45	P	
57	Fe	1	**433.300**	ug/l	21,665.00	1.5	450000	74	P	
59	Co	1	**19.490**	ug/l	974.50	0.6	4500	74	P	
60	Ni	1	**19.870**	ug/l	993.50	2.4	4500	74	P	
63	Cu	1	**10.240**	ug/l	512.00	3.1	4500	74	P	
66	Zn	1	**20.760**	ug/l	1,038.00	3.5	4500	74	P	
75	As	1	**80.800**	ug/l	4,040.00	1.9	4500	74	P	
78	Se	1	**79.850**	ug/l	3,992.50	1.7	4500	74	P	
88	Sr	1	**-0.003**	ug/l	-0.16	367.0	4500	74	P	
95	Mo	1	**97.400**	ug/l	4,870.00	0.4	4500	103	P	
109	Ag	1	**12.190**	ug/l	609.50	0.9	4500	103	P	
111	Cd	1	**2.070**	ug/l	103.50	1.5	4500	103	P	
118	Sn	1	**99.970**	ug/l	4,998.50	0.5	4500	103	P	
123	Sb	1	**58.190**	ug/l	2,909.50	1.1	4500	103	P	
135	Ba	1	**78.740**	ug/l	3,937.00	1.3	4500	103	P	
200	Hg	1	**0.984**	ug/l	49.21	3.0	45	209	P	
205	Tl	1	**79.860**	ug/l	3,993.00	2.1	4500	209	A	
208	Pb	1	**19.990**	ug/l	999.50	2.6	4500	209	P	
238	U	1	**0.000**	ug/l	-0.02	102.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56861	0.97	70500	**80.7**	30	-	125	
45	Sc	1	1624232	1.12	1703000	**95.4**	30	-	125	
74	Ge	1	3808927	1.36	3864000	**98.6**	30	-	125	
103	Rh	1	5436911	0.03	5496000	**98.9**	30	-	125	
165	Ho	1	2508743	1.07	2487000	**100.9**	30	-	125	
175	Lu	1	2107700	3.00	2103000	**100.2**	30	-	125	
209	Bi	1	2607917	1.64	2573000	**101.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\032SMPL.D\032SMPL.D#
Date Acquired: Sep 13 2011 06:39 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-95118/19-A Vial Number: 2510
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**47.610**	ug/l	952.20	1.4	900	6	P	
23	**Na**	1	**431.500**	ug/l	8,630.00	2.4	450000	6	A	
24	**Mg**	1	**1603.000**	ug/l	32,060.00	1.5	450000	6	A	
27	**Al**	1	**4295.000**	ug/l	85,900.00	2.2	450000	6	A	
31	**P**	1	**280.100**	ug/l	5,602.00	1.3	450000	6	P	
39	**K**	1	**1316.000**	ug/l	26,320.00	3.6	450000	45	A	
44	**Ca**	1	**3449.000**	ug/l	68,980.00	1.1	450000	45	P	
47	**Ti**	1	**109.300**	ug/l	2,186.00	0.9	4500	45	P	
51	**V**	1	**58.000**	ug/l	1,160.00	2.3	4500	45	P	
52	**Cr**	1	**48.750**	ug/l	975.00	2.3	4500	45	P	
55	**Mn**	1	**242.100**	ug/l	4,842.00	2.7	4500	45	A	
57	**Fe**	1	**7093.000**	ug/l	141,860.00	1.4	450000	74	A	
59	**Co**	1	**70.860**	ug/l	1,417.20	1.0	4500	74	P	
60	**Ni**	1	**57.710**	ug/l	1,154.20	0.9	4500	74	P	
63	**Cu**	1	**37.920**	ug/l	758.40	0.5	4500	74	P	
66	**Zn**	1	**154.600**	ug/l	3,092.00	0.9	4500	74	P	
75	**As**	1	**57.510**	ug/l	1,150.20	0.6	4500	74	P	
78	**Se**	1	**111.700**	ug/l	2,234.00	1.3	4500	74	P	
88	**Sr**	1	**59.380**	ug/l	1,187.60	1.1	4500	74	P	
95	**Mo**	1	**47.880**	ug/l	957.60	0.8	4500	103	P	
109	**Ag**	1	**26.790**	ug/l	535.80	1.4	4500	103	P	
111	**Cd**	1	**58.650**	ug/l	1,173.00	2.4	4500	103	P	
118	**Sn**	1	**71.510**	ug/l	1,430.20	1.8	4500	103	P	
123	**Sb**	1	**114.200**	ug/l	2,284.00	1.1	4500	103	P	
135	**Ba**	1	**170.600**	ug/l	3,412.00	1.0	4500	103	P	
200	**Hg**	1	**8.552**	ug/l	171.04	1.6	45	209	P	
205	**Tl**	1	**92.940**	ug/l	1,858.80	3.3	4500	209	A	
208	**Pb**	1	**86.110**	ug/l	1,722.20	1.8	4500	209	A	
238	**U**	1	**0.554**	ug/l	11.07	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57146	1.44	70500	**81.1**	30	-	125	
45	Sc	1	1606892	1.88	1703000	**94.4**	30	-	125	
74	Ge	1	3780228	0.74	3864000	**97.8**	30	-	125	
103	Rh	1	5289873	0.96	5496000	**96.2**	30	-	125	
165	Ho	1	2495133	1.98	2487000	**100.3**	30	-	125	
175	Lu	1	2105610	1.27	2103000	**100.1**	30	-	125	
209	Bi	1	2530741	0.72	2573000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\033SMPL.D\033SMPL.D#
Date Acquired: Sep 13 2011 06:43 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.360**	ug/l	50.36	0.7	900	6	P	
23	**Na**	1	**5192.000**	ug/l	5,192.00	1.5	450000	6	A	
24	**Mg**	1	**5135.000**	ug/l	5,135.00	1.0	450000	6	A	
27	**Al**	1	**518.900**	ug/l	518.90	1.0	450000	6	P	
31	**P**	1	**5169.000**	ug/l	5,169.00	0.7	450000	6	P	
39	**K**	1	**4916.000**	ug/l	4,916.00	0.9	450000	45	A	
44	**Ca**	1	**4862.000**	ug/l	4,862.00	1.4	450000	45	P	
47	**Ti**	1	**48.930**	ug/l	48.93	1.8	4500	45	P	
51	**V**	1	**49.110**	ug/l	49.11	2.2	4500	45	P	
52	**Cr**	1	**49.720**	ug/l	49.72	1.0	4500	45	P	
55	**Mn**	1	**50.260**	ug/l	50.26	1.7	4500	45	P	
57	**Fe**	1	**4921.000**	ug/l	4,921.00	0.5	450000	74	A	
59	**Co**	1	**47.790**	ug/l	47.79	0.9	4500	74	P	
60	**Ni**	1	**48.490**	ug/l	48.49	1.4	4500	74	P	
63	**Cu**	1	**49.070**	ug/l	49.07	1.1	4500	74	P	
66	**Zn**	1	**48.490**	ug/l	48.49	0.3	4500	74	P	
75	**As**	1	**49.050**	ug/l	49.05	1.9	4500	74	P	
78	**Se**	1	**49.500**	ug/l	49.50	1.9	4500	74	P	
88	**Sr**	1	**49.690**	ug/l	49.69	1.4	4500	74	P	
95	**Mo**	1	**48.560**	ug/l	48.56	0.9	4500	103	P	
109	**Ag**	1	**48.970**	ug/l	48.97	0.5	4500	103	P	
111	**Cd**	1	**48.940**	ug/l	48.94	1.7	4500	103	P	
118	**Sn**	1	**49.130**	ug/l	49.13	1.0	4500	103	P	
123	**Sb**	1	**49.530**	ug/l	49.53	0.8	4500	103	P	
135	**Ba**	1	**49.450**	ug/l	49.45	0.5	4500	103	P	
200	**Hg**	1	**2.502**	ug/l	2.50	1.9	45	209	P	
205	**Tl**	1	**49.500**	ug/l	49.50	4.7	4500	209	A	
208	**Pb**	1	**49.500**	ug/l	49.50	1.3	4500	209	P	
238	**U**	1	**49.830**	ug/l	49.83	0.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	58938	0.74	70500	**83.6**	30	-	125	
45	Sc	1	1627245	2.25	1703000	**95.6**	30	-	125	
74	Ge	1	3817748	1.29	3864000	**98.8**	30	-	125	
103	Rh	1	5313325	0.26	5496000	**96.7**	30	-	125	
165	Ho	1	2474227	2.28	2487000	**99.5**	30	-	125	
175	Lu	1	2074744	3.26	2103000	**98.7**	30	-	125	
209	Bi	1	2506389	0.72	2573000	**97.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\034SMPL.D\034SMPL.D#
Date Acquired: Sep 13 2011 06:48 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.017**	ug/l	0.02	72.9	900	6	P	
23	**Na**	1	**18.960**	ug/l	18.96	3.1	450000	6	P	
24	**Mg**	1	**0.815**	ug/l	0.82	12.9	450000	6	P	
27	**Al**	1	**0.182**	ug/l	0.18	53.9	450000	6	P	
31	**P**	1	**0.449**	ug/l	0.45	243.7	450000	6	P	
39	**K**	1	**1.270**	ug/l	1.27	246.7	450000	45	P	
44	**Ca**	1	**0.628**	ug/l	0.63	74.1	450000	45	P	
47	**Ti**	1	**0.032**	ug/l	0.03	84.5	4500	45	P	
51	**V**	1	**0.032**	ug/l	0.03	98.1	4500	45	P	
52	**Cr**	1	**0.005**	ug/l	0.01	311.9	4500	45	P	
55	**Mn**	1	**0.015**	ug/l	0.01	38.6	4500	45	P	
57	**Fe**	1	**1.917**	ug/l	1.92	17.0	450000	74	P	
59	**Co**	1	**0.009**	ug/l	0.01	42.8	4500	74	P	
60	**Ni**	1	**0.010**	ug/l	0.01	84.1	4500	74	P	
63	**Cu**	1	**0.048**	ug/l	0.05	70.9	4500	74	P	
66	**Zn**	1	**0.023**	ug/l	0.02	50.2	4500	74	P	
75	**As**	1	**0.005**	ug/l	0.00	348.8	4500	74	P	
78	**Se**	1	**0.074**	ug/l	0.07	57.6	4500	74	P	
88	**Sr**	1	**-0.005**	ug/l	0.00	95.9	4500	74	P	
95	**Mo**	1	**0.146**	ug/l	0.15	22.9	4500	103	P	
109	**Ag**	1	**0.006**	ug/l	0.01	23.5	4500	103	P	
111	**Cd**	1	**0.014**	ug/l	0.01	48.9	4500	103	P	
118	**Sn**	1	**0.400**	ug/l	0.40	20.3	4500	103	P	
123	**Sb**	1	**0.092**	ug/l	0.09	27.5	4500	103	P	
135	**Ba**	1	**0.027**	ug/l	0.03	45.1	4500	103	P	
200	**Hg**	1	**0.038**	ug/l	0.04	2.7	45	209	P	
205	**Tl**	1	**0.422**	ug/l	0.42	5.0	4500	209	P	
208	**Pb**	1	**0.010**	ug/l	0.01	98.8	4500	209	P	
238	**U**	1	**0.014**	ug/l	0.01	16.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	58762	0.71	70500	**83.4**	30	-	125	
45	Sc	1	1612116	2.20	1703000	**94.7**	30	-	125	
74	Ge	1	3824570	0.65	3864000	**99.0**	30	-	125	
103	Rh	1	5424270	0.96	5496000	**98.7**	30	-	125	
165	Ho	1	2507599	0.63	2487000	**100.8**	30	-	125	
175	Lu	1	2102075	1.75	2103000	**100.0**	30	-	125	
209	Bi	1	2606583	2.24	2573000	**101.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\035SMPL.D\035SMPL.D#
Date Acquired: Sep 13 2011 06:52 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-13-A Vial Number: 3101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.216**	ug/l	2.16	8.2	900	6	P	
23	**Na**	1	**266.800**	ug/l	2,668.00	1.1	450000	6	P	
24	**Mg**	1	**816.100**	ug/l	8,161.00	2.9	450000	6	M	
27	**Al**	1	**17750.000**	ug/l	177,500.00	2.0	450000	6	A	
31	**P**	1	**603.300**	ug/l	6,033.00	2.2	450000	6	P	
39	**K**	1	**312.000**	ug/l	3,120.00	4.6	450000	45	P	
44	**Ca**	1	**423.300**	ug/l	4,233.00	3.5	450000	45	P	
47	**Ti**	1	**1316.000**	ug/l	13,160.00	3.0	4500	45	P	
51	**V**	1	**58.120**	ug/l	581.20	4.5	4500	45	P	
52	**Cr**	1	**7.837**	ug/l	78.37	3.6	4500	45	P	
55	**Mn**	1	**296.300**	ug/l	2,963.00	2.8	4500	45	A	
57	**Fe**	1	**32370.000**	ug/l	323,700.00	2.0	450000	74	A	
59	**Co**	1	**4.067**	ug/l	40.67	2.4	4500	74	P	
60	**Ni**	1	**2.594**	ug/l	25.94	1.5	4500	74	P	
63	**Cu**	1	**2240.000**	ug/l	22,400.00	1.1	4500	74	A	
66	**Zn**	1	**28.800**	ug/l	288.00	0.7	4500	74	P	
75	**As**	1	**220.300**	ug/l	2,203.00	1.3	4500	74	P	
78	**Se**	1	**1.154**	ug/l	11.54	8.7	4500	74	P	
88	**Sr**	1	**3.245**	ug/l	32.45	3.0	4500	74	P	
95	**Mo**	1	**2.670**	ug/l	26.70	3.0	4500	103	P	
109	**Ag**	1	**8.484**	ug/l	84.84	0.5	4500	103	P	
111	**Cd**	1	**0.180**	ug/l	1.80	9.0	4500	103	P	
118	**Sn**	1	**2.308**	ug/l	23.08	3.8	4500	103	P	
123	**Sb**	1	**1.876**	ug/l	18.76	1.6	4500	103	P	
135	**Ba**	1	**10.600**	ug/l	106.00	1.9	4500	103	P	
200	**Hg**	1	**0.301**	ug/l	3.01	1.7	45	209	P	
205	**Tl**	1	**0.272**	ug/l	2.72	6.5	4500	209	P	
208	**Pb**	1	**668.600**	ug/l	6,686.00	2.2	4500	209	A	
238	**U**	1	**1.038**	ug/l	10.38	3.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56506	1.95	70500	**80.2**	30	-	125	
45	Sc	1	1587960	3.34	1703000	**93.2**	30	-	125	
74	Ge	1	3727406	1.25	3864000	**96.5**	30	-	125	
103	Rh	1	5209448	0.91	5496000	**94.8**	30	-	125	
165	Ho	1	2468929	0.80	2487000	**99.3**	30	-	125	
175	Lu	1	2088655	0.32	2103000	**99.3**	30	-	125	
209	Bi	1	2504244	1.87	2573000	**97.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\036SMPL.D\036SMPL.D#
Date Acquired: Sep 13 2011 06:56 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-14-A Vial Number: 3102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.130**	ug/l	1.30	28.5	900	6	P	
23	**Na**	1	**284.100**	ug/l	2,841.00	1.2	450000	6	P	
24	**Mg**	1	**343.600**	ug/l	3,436.00	0.6	450000	6	P	
27	**Al**	1	**9979.000**	ug/l	99,790.00	0.6	450000	6	A	
31	**P**	1	**360.400**	ug/l	3,604.00	1.0	450000	6	P	
39	**K**	1	**187.300**	ug/l	1,873.00	1.2	450000	45	P	
44	**Ca**	1	**363.100**	ug/l	3,631.00	1.5	450000	45	P	
47	**Ti**	1	**869.300**	ug/l	8,693.00	1.5	4500	45	P	
51	**V**	1	**41.490**	ug/l	414.90	1.8	4500	45	P	
52	**Cr**	1	**5.904**	ug/l	59.04	1.9	4500	45	P	
55	**Mn**	1	**107.600**	ug/l	1,076.00	0.8	4500	45	P	
57	**Fe**	1	**16110.000**	ug/l	161,100.00	1.7	450000	74	A	
59	**Co**	1	**2.244**	ug/l	22.44	1.5	4500	74	P	
60	**Ni**	1	**2.145**	ug/l	21.45	2.7	4500	74	P	
63	**Cu**	1	**1528.000**	ug/l	15,280.00	2.2	4500	74	A	
66	**Zn**	1	**39.040**	ug/l	390.40	2.2	4500	74	P	
75	**As**	1	**56.280**	ug/l	562.80	0.9	4500	74	P	
78	**Se**	1	**0.614**	ug/l	6.14	20.9	4500	74	P	
88	**Sr**	1	**3.246**	ug/l	32.46	2.7	4500	74	P	
95	**Mo**	1	**1.158**	ug/l	11.58	2.2	4500	103	P	
109	**Ag**	1	**2.901**	ug/l	29.01	2.5	4500	103	P	
111	**Cd**	1	**0.296**	ug/l	2.96	4.4	4500	103	P	
118	**Sn**	1	**1.900**	ug/l	19.00	1.8	4500	103	P	
123	**Sb**	1	**0.854**	ug/l	8.54	2.0	4500	103	P	
135	**Ba**	1	**7.278**	ug/l	72.78	2.1	4500	103	P	
200	**Hg**	1	**0.155**	ug/l	1.55	2.1	45	209	P	
205	**Tl**	1	**0.179**	ug/l	1.79	6.0	4500	209	P	
208	**Pb**	1	**247.700**	ug/l	2,477.00	1.8	4500	209	A	
238	**U**	1	**0.490**	ug/l	4.90	1.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56853	0.73	70500	**80.6**	30	-	125	
45	Sc	1	1589550	1.18	1703000	**93.3**	30	-	125	
74	Ge	1	3703468	1.08	3864000	**95.8**	30	-	125	
103	Rh	1	5231263	0.87	5496000	**95.2**	30	-	125	
165	Ho	1	2472589	1.11	2487000	**99.4**	30	-	125	
175	Lu	1	2084756	1.02	2103000	**99.1**	30	-	125	
209	Bi	1	2500554	2.51	2573000	**97.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\037SMPL.D\037SMPL.D#
Date Acquired: Sep 13 2011 07:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-15-A Vial Number: 3103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.278**	ug/l	2.78	3.8	900	6	P	
23	**Na**	1	**523.000**	ug/l	5,230.00	1.3	450000	6	A	
24	**Mg**	1	**789.800**	ug/l	7,898.00	1.5	450000	6	P	
27	**Al**	1	**31570.000**	ug/l	315,700.00	1.8	450000	6	A	
31	**P**	1	**766.900**	ug/l	7,669.00	1.4	450000	6	P	
39	**K**	1	**159.800**	ug/l	1,598.00	2.6	450000	45	P	
44	**Ca**	1	**1500.000**	ug/l	15,000.00	0.6	450000	45	P	
47	**Ti**	1	**1044.000**	ug/l	10,440.00	0.5	4500	45	P	
51	**V**	1	**51.150**	ug/l	511.50	1.2	4500	45	P	
52	**Cr**	1	**11.950**	ug/l	119.50	1.1	4500	45	P	
55	**Mn**	1	**103.700**	ug/l	1,037.00	0.5	4500	45	P	
57	**Fe**	1	**28480.000**	ug/l	284,800.00	1.3	450000	74	A	
59	**Co**	1	**3.841**	ug/l	38.41	1.4	4500	74	P	
60	**Ni**	1	**2.731**	ug/l	27.31	4.2	4500	74	P	
63	**Cu**	1	**1139.000**	ug/l	11,390.00	0.6	4500	74	A	
66	**Zn**	1	**31.420**	ug/l	314.20	0.9	4500	74	P	
75	**As**	1	**67.230**	ug/l	672.30	1.0	4500	74	P	
78	**Se**	1	**1.301**	ug/l	13.01	8.1	4500	74	P	
88	**Sr**	1	**14.500**	ug/l	145.00	2.2	4500	74	P	
95	**Mo**	1	**1.205**	ug/l	12.05	1.4	4500	103	P	
109	**Ag**	1	**1.884**	ug/l	18.84	1.2	4500	103	P	
111	**Cd**	1	**0.184**	ug/l	1.84	7.5	4500	103	P	
118	**Sn**	1	**2.492**	ug/l	24.92	1.4	4500	103	P	
123	**Sb**	1	**0.716**	ug/l	7.16	5.9	4500	103	P	
135	**Ba**	1	**6.958**	ug/l	69.58	3.1	4500	103	P	
200	**Hg**	1	**0.173**	ug/l	1.73	5.0	45	209	P	
205	**Tl**	1	**0.145**	ug/l	1.45	12.4	4500	209	P	
208	**Pb**	1	**105.800**	ug/l	1,058.00	2.1	4500	209	A	
238	**U**	1	**1.846**	ug/l	18.46	3.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	54978	1.86	70500	**78.0**	30	-	125	
45	Sc	1	1582805	0.39	1703000	**92.9**	30	-	125	
74	Ge	1	3709777	0.30	3864000	**96.0**	30	-	125	
103	Rh	1	5108004	0.78	5496000	**92.9**	30	-	125	
165	Ho	1	2467615	1.65	2487000	**99.2**	30	-	125	
175	Lu	1	2075684	2.27	2103000	**98.7**	30	-	125	
209	Bi	1	2472976	1.61	2573000	**96.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\038SMPL.D\038SMPL.D#
Date Acquired: Sep 13 2011 07:05 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-16-A Vial Number: 3104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.452**	ug/l	4.52	6.0	900	6	P	
23	**Na**	1	**564.800**	ug/l	5,648.00	1.3	450000	6	A	
24	**Mg**	1	**797.000**	ug/l	7,970.00	0.4	450000	6	P	
27	**Al**	1	**51280.000**	ug/l	512,800.00	1.4	450000	6	A	
31	**P**	1	**749.700**	ug/l	7,497.00	0.9	450000	6	P	
39	**K**	1	**205.900**	ug/l	2,059.00	4.9	450000	45	P	
44	**Ca**	1	**1783.000**	ug/l	17,830.00	2.8	450000	45	P	
47	**Ti**	1	**1121.000**	ug/l	11,210.00	3.2	4500	45	P	
51	**V**	1	**54.610**	ug/l	546.10	4.3	4500	45	P	
52	**Cr**	1	**18.140**	ug/l	181.40	4.7	4500	45	P	
55	**Mn**	1	**81.680**	ug/l	816.80	3.8	4500	45	P	
57	**Fe**	1	**28370.000**	ug/l	283,700.00	0.7	450000	74	A	
59	**Co**	1	**3.006**	ug/l	30.06	1.7	4500	74	P	
60	**Ni**	1	**4.008**	ug/l	40.08	2.0	4500	74	P	
63	**Cu**	1	**1242.000**	ug/l	12,420.00	0.9	4500	74	A	
66	**Zn**	1	**38.770**	ug/l	387.70	1.7	4500	74	P	
75	**As**	1	**82.590**	ug/l	825.90	1.9	4500	74	P	
78	**Se**	1	**1.567**	ug/l	15.67	2.9	4500	74	P	
88	**Sr**	1	**18.380**	ug/l	183.80	1.8	4500	74	P	
95	**Mo**	1	**1.371**	ug/l	13.71	4.1	4500	103	P	
109	**Ag**	1	**2.380**	ug/l	23.80	2.0	4500	103	P	
111	**Cd**	1	**0.228**	ug/l	2.28	12.8	4500	103	P	
118	**Sn**	1	**2.054**	ug/l	20.54	2.4	4500	103	P	
123	**Sb**	1	**0.845**	ug/l	8.45	0.9	4500	103	P	
135	**Ba**	1	**12.480**	ug/l	124.80	2.7	4500	103	P	
200	**Hg**	1	**0.196**	ug/l	1.96	8.5	45	209	P	
205	**Tl**	1	**0.156**	ug/l	1.56	13.8	4500	209	P	
208	**Pb**	1	**118.100**	ug/l	1,181.00	1.3	4500	209	A	
238	**U**	1	**2.006**	ug/l	20.06	1.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56242	0.48	70500	**79.8**	30	-	125	
45	Sc	1	1591731	3.72	1703000	**93.5**	30	-	125	
74	Ge	1	3702494	1.04	3864000	**95.8**	30	-	125	
103	Rh	1	5079808	0.54	5496000	**92.4**	30	-	125	
165	Ho	1	2452994	1.06	2487000	**98.6**	30	-	125	
175	Lu	1	2093660	0.30	2103000	**99.6**	30	-	125	
209	Bi	1	2444815	1.18	2573000	**95.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\039SMPL.D\039SMPL.D#
Date Acquired: Sep 13 2011 07:10 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-17-A Vial Number: 3105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.245**	ug/l	12.45	3.3	900	6	P	
23	**Na**	1	**410.800**	ug/l	4,108.00	0.3	450000	6	M	
24	**Mg**	1	**9961.000**	ug/l	99,610.00	1.4	450000	6	A	
27	**Al**	1	**56430.000**	ug/l	564,300.00	1.4	450000	6	A	
31	**P**	1	**1864.000**	ug/l	18,640.00	2.3	450000	6	P	
39	**K**	1	**2584.000**	ug/l	25,840.00	3.2	450000	45	A	
44	**Ca**	1	**5919.000**	ug/l	59,190.00	1.7	450000	45	P	
47	**Ti**	1	**1319.000**	ug/l	13,190.00	2.2	4500	45	P	
51	**V**	1	**159.400**	ug/l	1,594.00	1.1	4500	45	A	
52	**Cr**	1	**16.860**	ug/l	168.60	3.0	4500	45	P	
55	**Mn**	1	**11770.000**	ug/l	117,700.00	1.2	4500	45	A	Fail
57	**Fe**	1	**123900.000**	ug/l	1,239,000.00	1.4	450000	74	A	
59	**Co**	1	**48.120**	ug/l	481.20	1.4	4500	74	P	
60	**Ni**	1	**14.280**	ug/l	142.80	2.7	4500	74	P	
63	**Cu**	1	**250.900**	ug/l	2,509.00	1.5	4500	74	A	
66	**Zn**	1	**1065.000**	ug/l	10,650.00	1.7	4500	74	A	
75	**As**	1	**11110.000**	ug/l	111,100.00	0.8	4500	74	A	Fail
78	**Se**	1	**2.912**	ug/l	29.12	2.4	4500	74	P	
88	**Sr**	1	**19.140**	ug/l	191.40	0.3	4500	74	P	
95	**Mo**	1	**20.350**	ug/l	203.50	1.5	4500	103	P	
109	**Ag**	1	**2.021**	ug/l	20.21	1.3	4500	103	P	
111	**Cd**	1	**7.482**	ug/l	74.82	0.5	4500	103	P	
118	**Sn**	1	**2.005**	ug/l	20.05	0.8	4500	103	P	
123	**Sb**	1	**62.370**	ug/l	623.70	1.1	4500	103	P	
135	**Ba**	1	**165.000**	ug/l	1,650.00	0.9	4500	103	P	
200	**Hg**	1	**1.952**	ug/l	19.52	4.4	45	209	P	
205	**Tl**	1	**11.500**	ug/l	115.00	1.4	4500	209	P	
208	**Pb**	1	**206.300**	ug/l	2,063.00	2.1	4500	209	A	
238	**U**	1	**11.660**	ug/l	116.60	1.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	54410	1.02	70500	**77.2**	30	-	125	
45	Sc	1	1560366	2.37	1703000	**91.6**	30	-	125	
74	Ge	1	3550636	1.29	3864000	**91.9**	30	-	125	
103	Rh	1	4871637	0.34	5496000	**88.6**	30	-	125	
165	Ho	1	2392538	1.33	2487000	**96.2**	30	-	125	
175	Lu	1	1982296	1.16	2103000	**94.3**	30	-	125	
209	Bi	1	2374067	1.84	2573000	**92.3**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\040SMPL.D\040SMPL.D#
Date Acquired: Sep 13 2011 07:14 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-18-A Vial Number: 3106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.964**	ug/l	9.64	8.0	900	6	P	
23	**Na**	1	**357.300**	ug/l	3,573.00	1.3	450000	6	P	
24	**Mg**	1	**9950.000**	ug/l	99,500.00	1.0	450000	6	A	
27	**Al**	1	**43160.000**	ug/l	431,600.00	1.0	450000	6	A	
31	**P**	1	**1309.000**	ug/l	13,090.00	0.5	450000	6	P	
39	**K**	1	**3441.000**	ug/l	34,410.00	2.4	450000	45	A	
44	**Ca**	1	**4652.000**	ug/l	46,520.00	2.7	450000	45	P	
47	**Ti**	1	**1664.000**	ug/l	16,640.00	2.7	4500	45	P	
51	**V**	1	**149.600**	ug/l	1,496.00	2.9	4500	45	A	
52	**Cr**	1	**13.270**	ug/l	132.70	1.8	4500	45	P	
55	**Mn**	1	**26940.000**	ug/l	269,400.00	1.9	4500	45	A	Fail
57	**Fe**	1	**93990.000**	ug/l	939,900.00	2.2	450000	74	A	
59	**Co**	1	**41.390**	ug/l	413.90	1.6	4500	74	P	
60	**Ni**	1	**14.090**	ug/l	140.90	1.2	4500	74	P	
63	**Cu**	1	**230.400**	ug/l	2,304.00	1.1	4500	74	A	
66	**Zn**	1	**1046.000**	ug/l	10,460.00	0.4	4500	74	A	
75	**As**	1	**5379.000**	ug/l	53,790.00	1.0	4500	74	A	Fail
78	**Se**	1	**2.236**	ug/l	22.36	7.4	4500	74	P	
88	**Sr**	1	**15.370**	ug/l	153.70	1.3	4500	74	P	
95	**Mo**	1	**12.580**	ug/l	125.80	1.2	4500	103	P	
109	**Ag**	1	**2.060**	ug/l	20.60	0.9	4500	103	P	
111	**Cd**	1	**7.485**	ug/l	74.85	3.3	4500	103	P	
118	**Sn**	1	**1.876**	ug/l	18.76	4.0	4500	103	P	
123	**Sb**	1	**30.070**	ug/l	300.70	2.5	4500	103	P	
135	**Ba**	1	**231.200**	ug/l	2,312.00	1.5	4500	103	P	
200	**Hg**	1	**0.819**	ug/l	8.19	4.5	45	209	P	
205	**Tl**	1	**12.890**	ug/l	128.90	0.8	4500	209	P	
208	**Pb**	1	**120.600**	ug/l	1,206.00	1.3	4500	209	A	
238	**U**	1	**8.292**	ug/l	82.92	1.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56158	0.36	70500	**79.7**	30	-	125	
45	Sc	1	1596493	2.70	1703000	**93.7**	30	-	125	
74	Ge	1	3562848	1.26	3864000	**92.2**	30	-	125	
103	Rh	1	4884267	1.18	5496000	**88.9**	30	-	125	
165	Ho	1	2419955	0.53	2487000	**97.3**	30	-	125	
175	Lu	1	2030707	1.89	2103000	**96.6**	30	-	125	
209	Bi	1	2365017	0.41	2573000	**91.9**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\041SMPL.D\041SMPL.D#
Date Acquired: Sep 13 2011 07:18 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-19-A Vial Number: 3107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.423**	ug/l	4.23	20.5	900	6	P	
23	**Na**	1	**205.000**	ug/l	2,050.00	0.9	450000	6	P	
24	**Mg**	1	**3707.000**	ug/l	37,070.00	0.2	450000	6	A	
27	**Al**	1	**15390.000**	ug/l	153,900.00	3.6	450000	6	A	
31	**P**	1	**1041.000**	ug/l	10,410.00	0.7	450000	6	P	
39	**K**	1	**4273.000**	ug/l	42,730.00	3.0	450000	45	A	
44	**Ca**	1	**1505.000**	ug/l	15,050.00	1.5	450000	45	P	
47	**Ti**	1	**405.200**	ug/l	4,052.00	2.3	4500	45	P	
51	**V**	1	**110.700**	ug/l	1,107.00	1.7	4500	45	A	
52	**Cr**	1	**9.875**	ug/l	98.75	2.2	4500	45	P	
55	**Mn**	1	**9211.000**	ug/l	92,110.00	2.8	4500	45	A	Fail
57	**Fe**	1	**114200.000**	ug/l	1,142,000.00	1.2	450000	74	A	
59	**Co**	1	**42.170**	ug/l	421.70	0.7	4500	74	P	
60	**Ni**	1	**6.159**	ug/l	61.59	0.9	4500	74	P	
63	**Cu**	1	**298.900**	ug/l	2,989.00	0.5	4500	74	A	
66	**Zn**	1	**448.000**	ug/l	4,480.00	0.5	4500	74	P	
75	**As**	1	**11570.000**	ug/l	115,700.00	0.9	4500	74	A	Fail
78	**Se**	1	**2.086**	ug/l	20.86	3.2	4500	74	P	
88	**Sr**	1	**6.024**	ug/l	60.24	1.3	4500	74	P	
95	**Mo**	1	**5.838**	ug/l	58.38	2.8	4500	103	P	
109	**Ag**	1	**4.647**	ug/l	46.47	1.7	4500	103	P	
111	**Cd**	1	**3.957**	ug/l	39.57	2.5	4500	103	P	
118	**Sn**	1	**3.067**	ug/l	30.67	2.1	4500	103	P	
123	**Sb**	1	**119.600**	ug/l	1,196.00	1.0	4500	103	P	
135	**Ba**	1	**104.600**	ug/l	1,046.00	0.4	4500	103	P	
200	**Hg**	1	**2.139**	ug/l	21.39	1.1	45	209	P	
205	**Tl**	1	**8.217**	ug/l	82.17	1.8	4500	209	P	
208	**Pb**	1	**340.600**	ug/l	3,406.00	0.6	4500	209	A	
238	**U**	1	**5.055**	ug/l	50.55	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57091	0.95	70500	**81.0**	30	-	125	
45	Sc	1	1626065	1.85	1703000	**95.5**	30	-	125	
74	Ge	1	3624967	0.68	3864000	**93.8**	30	-	125	
103	Rh	1	4959669	0.54	5496000	**90.2**	30	-	125	
165	Ho	1	2404793	0.78	2487000	**96.7**	30	-	125	
175	Lu	1	2017476	1.76	2103000	**95.9**	30	-	125	
209	Bi	1	2441683	0.86	2573000	**94.9**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\042SMPL.D\042SMPL.D#
Date Acquired: Sep 13 2011 07:22 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-20-A Vial Number: 3108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.448**	ug/l	4.48	10.1	900	6	P	
23	**Na**	1	**228.000**	ug/l	2,280.00	0.9	450000	6	P	
24	**Mg**	1	**4575.000**	ug/l	45,750.00	1.1	450000	6	A	
27	**Al**	1	**20040.000**	ug/l	200,400.00	1.7	450000	6	A	
31	**P**	1	**1184.000**	ug/l	11,840.00	0.8	450000	6	P	
39	**K**	1	**4176.000**	ug/l	41,760.00	0.3	450000	45	A	
44	**Ca**	1	**1554.000**	ug/l	15,540.00	1.6	450000	45	P	
47	**Ti**	1	**504.200**	ug/l	5,042.00	1.8	4500	45	P	
51	**V**	1	**129.300**	ug/l	1,293.00	2.3	4500	45	A	
52	**Cr**	1	**10.280**	ug/l	102.80	1.8	4500	45	P	
55	**Mn**	1	**13330.000**	ug/l	133,300.00	1.2	4500	45	A	Fail
57	**Fe**	1	**125000.000**	ug/l	1,250,000.00	1.5	450000	74	A	
59	**Co**	1	**55.280**	ug/l	552.80	1.4	4500	74	P	
60	**Ni**	1	**8.070**	ug/l	80.70	4.4	4500	74	P	
63	**Cu**	1	**386.000**	ug/l	3,860.00	1.2	4500	74	A	
66	**Zn**	1	**521.100**	ug/l	5,211.00	0.6	4500	74	P	
75	**As**	1	**18650.000**	ug/l	186,500.00	0.5	4500	74	A	Fail
78	**Se**	1	**2.511**	ug/l	25.11	4.5	4500	74	P	
88	**Sr**	1	**7.072**	ug/l	70.72	1.2	4500	74	P	
95	**Mo**	1	**6.789**	ug/l	67.89	1.3	4500	103	P	
109	**Ag**	1	**6.163**	ug/l	61.63	1.0	4500	103	P	
111	**Cd**	1	**4.909**	ug/l	49.09	2.5	4500	103	P	
118	**Sn**	1	**2.689**	ug/l	26.89	1.1	4500	103	P	
123	**Sb**	1	**132.500**	ug/l	1,325.00	0.7	4500	103	P	
135	**Ba**	1	**117.100**	ug/l	1,171.00	0.7	4500	103	P	
200	**Hg**	1	**2.316**	ug/l	23.16	3.4	45	209	P	
205	**Tl**	1	**11.540**	ug/l	115.40	1.7	4500	209	P	
208	**Pb**	1	**387.800**	ug/l	3,878.00	0.5	4500	209	A	
238	**U**	1	**6.278**	ug/l	62.78	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	58132	0.43	70500	**82.5**	30	-	125	
45	Sc	1	1628468	1.37	1703000	**95.6**	30	-	125	
74	Ge	1	3535511	0.15	3864000	**91.5**	30	-	125	
103	Rh	1	4825625	0.27	5496000	**87.8**	30	-	125	
165	Ho	1	2364353	0.30	2487000	**95.1**	30	-	125	
175	Lu	1	1992524	1.68	2103000	**94.7**	30	-	125	
209	Bi	1	2466175	0.65	2573000	**95.8**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\043SMPL.D\043SMPL.D#
Date Acquired: Sep 13 2011 07:27 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-21-A Vial Number: 3109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.671**	ug/l	6.71	5.5	900	6	P	
23	**Na**	1	**665.400**	ug/l	6,654.00	3.7	450000	6	A	
24	**Mg**	1	**37320.000**	ug/l	373,200.00	2.3	450000	6	A	
27	**Al**	1	**33540.000**	ug/l	335,400.00	1.1	450000	6	A	
31	**P**	1	**1020.000**	ug/l	10,200.00	1.1	450000	6	P	
39	**K**	1	**2613.000**	ug/l	26,130.00	1.8	450000	45	A	
44	**Ca**	1	**3443.000**	ug/l	34,430.00	2.3	450000	45	P	
47	**Ti**	1	**869.900**	ug/l	8,699.00	2.1	4500	45	P	
51	**V**	1	**122.600**	ug/l	1,226.00	2.0	4500	45	A	
52	**Cr**	1	**125.300**	ug/l	1,253.00	3.7	4500	45	A	
55	**Mn**	1	**860.100**	ug/l	8,601.00	2.3	4500	45	A	
57	**Fe**	1	**78860.000**	ug/l	788,600.00	0.5	450000	74	A	
59	**Co**	1	**30.530**	ug/l	305.30	0.5	4500	74	P	
60	**Ni**	1	**249.900**	ug/l	2,499.00	0.6	4500	74	P	
63	**Cu**	1	**183.200**	ug/l	1,832.00	0.2	4500	74	A	
66	**Zn**	1	**123.000**	ug/l	1,230.00	0.2	4500	74	P	
75	**As**	1	**241.300**	ug/l	2,413.00	0.6	4500	74	P	
78	**Se**	1	**1.542**	ug/l	15.42	3.3	4500	74	P	
88	**Sr**	1	**33.040**	ug/l	330.40	0.7	4500	74	P	
95	**Mo**	1	**4.003**	ug/l	40.03	3.8	4500	103	P	
109	**Ag**	1	**0.255**	ug/l	2.55	2.9	4500	103	P	
111	**Cd**	1	**0.422**	ug/l	4.22	5.4	4500	103	P	
118	**Sn**	1	**2.241**	ug/l	22.41	2.6	4500	103	P	
123	**Sb**	1	**0.926**	ug/l	9.26	4.1	4500	103	P	
135	**Ba**	1	**107.200**	ug/l	1,072.00	0.4	4500	103	P	
200	**Hg**	1	**0.268**	ug/l	2.68	3.9	45	209	P	
205	**Tl**	1	**0.579**	ug/l	5.79	3.2	4500	209	P	
208	**Pb**	1	**27.820**	ug/l	278.20	2.8	4500	209	P	
238	**U**	1	**0.338**	ug/l	3.38	2.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59885	0.80	70500	**84.9**	30	-	125	
45	Sc	1	1576119	2.67	1703000	**92.5**	30	-	125	
74	Ge	1	3557183	0.78	3864000	**92.1**	30	-	125	
103	Rh	1	4803498	1.05	5496000	**87.4**	30	-	125	
165	Ho	1	2310798	1.05	2487000	**92.9**	30	-	125	
175	Lu	1	1940790	0.93	2103000	**92.3**	30	-	125	
209	Bi	1	2295991	1.43	2573000	**89.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\044SMPL.D\044SMPL.D#
Date Acquired: Sep 13 2011 07:31 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-22-A Vial Number: 3110
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.408**	ug/l	4.08	29.3	900	6	P	
23	Na	1	**254.400**	ug/l	2,544.00	3.7	450000	6	P	
24	Mg	1	**2241.000**	ug/l	22,410.00	3.1	450000	6	A	
27	Al	1	**55430.000**	ug/l	554,300.00	3.5	450000	6	A	
31	P	1	**915.600**	ug/l	9,156.00	2.3	450000	6	P	
39	K	1	**399.500**	ug/l	3,995.00	2.7	450000	45	P	
44	Ca	1	**469.600**	ug/l	4,696.00	1.1	450000	45	P	
47	Ti	1	**1333.000**	ug/l	13,330.00	1.4	4500	45	P	
51	V	1	**108.300**	ug/l	1,083.00	2.0	4500	45	P	
52	Cr	1	**59.170**	ug/l	591.70	3.8	4500	45	P	
55	Mn	1	**115.200**	ug/l	1,152.00	0.7	4500	45	P	
57	Fe	1	**49750.000**	ug/l	497,500.00	1.1	450000	74	A	
59	Co	1	**6.080**	ug/l	60.80	1.5	4500	74	P	
60	Ni	1	**30.050**	ug/l	300.50	1.2	4500	74	P	
63	Cu	1	**62.630**	ug/l	626.30	1.6	4500	74	P	
66	Zn	1	**40.820**	ug/l	408.20	1.1	4500	74	P	
75	As	1	**17.380**	ug/l	173.80	1.5	4500	74	P	
78	Se	1	**1.608**	ug/l	16.08	4.8	4500	74	P	
88	Sr	1	**7.578**	ug/l	75.78	1.4	4500	74	P	
95	Mo	1	**1.801**	ug/l	18.01	3.2	4500	103	P	
109	Ag	1	**0.677**	ug/l	6.77	1.2	4500	103	P	
111	Cd	1	**0.384**	ug/l	3.84	25.8	4500	103	P	
118	Sn	1	**2.593**	ug/l	25.93	4.4	4500	103	P	
123	Sb	1	**0.506**	ug/l	5.06	4.3	4500	103	P	
135	Ba	1	**35.940**	ug/l	359.40	2.9	4500	103	P	
200	Hg	1	**0.491**	ug/l	4.91	3.1	45	209	P	
205	Tl	1	**0.151**	ug/l	1.51	12.2	4500	209	P	
208	Pb	1	**18.050**	ug/l	180.50	2.3	4500	209	P	
238	U	1	**0.769**	ug/l	7.69	8.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60004	2.17	70500	**85.1**	30	-	125	
45	Sc	1	1567554	1.27	1703000	**92.0**	30	-	125	
74	Ge	1	3535246	1.37	3864000	**91.5**	30	-	125	
103	Rh	1	4780634	1.76	5496000	**87.0**	30	-	125	
165	Ho	1	2338206	1.30	2487000	**94.0**	30	-	125	
175	Lu	1	1966068	2.30	2103000	**93.5**	30	-	125	
209	Bi	1	2345009	2.16	2573000	**91.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\045SMPL.D\045SMPL.D#
Date Acquired: Sep 13 2011 07:35 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.930**	ug/l	48.93	1.3	900	6	P	
23	**Na**	1	**4982.000**	ug/l	4,982.00	1.6	450000	6	A	
24	**Mg**	1	**4934.000**	ug/l	4,934.00	0.2	450000	6	A	
27	**Al**	1	**501.200**	ug/l	501.20	0.5	450000	6	P	
31	**P**	1	**4922.000**	ug/l	4,922.00	1.6	450000	6	P	
39	**K**	1	**4957.000**	ug/l	4,957.00	1.6	450000	45	A	
44	**Ca**	1	**4950.000**	ug/l	4,950.00	0.9	450000	45	P	
47	**Ti**	1	**49.410**	ug/l	49.41	1.0	4500	45	P	
51	**V**	1	**49.460**	ug/l	49.46	1.3	4500	45	P	
52	**Cr**	1	**49.720**	ug/l	49.72	0.3	4500	45	P	
55	**Mn**	1	**50.450**	ug/l	50.45	0.7	4500	45	P	
57	**Fe**	1	**4881.000**	ug/l	4,881.00	0.8	450000	74	A	
59	**Co**	1	**47.560**	ug/l	47.56	1.5	4500	74	P	
60	**Ni**	1	**48.190**	ug/l	48.19	1.7	4500	74	P	
63	**Cu**	1	**48.500**	ug/l	48.50	2.1	4500	74	P	
66	**Zn**	1	**48.860**	ug/l	48.86	2.6	4500	74	P	
75	**As**	1	**48.730**	ug/l	48.73	1.2	4500	74	P	
78	**Se**	1	**48.330**	ug/l	48.33	3.1	4500	74	P	
88	**Sr**	1	**49.180**	ug/l	49.18	1.2	4500	74	P	
95	**Mo**	1	**48.860**	ug/l	48.86	1.3	4500	103	P	
109	**Ag**	1	**48.910**	ug/l	48.91	0.6	4500	103	P	
111	**Cd**	1	**49.590**	ug/l	49.59	0.9	4500	103	P	
118	**Sn**	1	**49.340**	ug/l	49.34	1.2	4500	103	P	
123	**Sb**	1	**49.930**	ug/l	49.93	1.1	4500	103	P	
135	**Ba**	1	**50.360**	ug/l	50.36	0.6	4500	103	P	
200	**Hg**	1	**2.455**	ug/l	2.46	2.0	45	209	P	
205	**Tl**	1	**49.340**	ug/l	49.34	0.4	4500	209	P	
208	**Pb**	1	**49.440**	ug/l	49.44	1.8	4500	209	P	
238	**U**	1	**49.480**	ug/l	49.48	2.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61919	1.15	70500	**87.8**	30	-	125	
45	Sc	1	1576913	0.75	1703000	**92.6**	30	-	125	
74	Ge	1	3684536	1.76	3864000	**95.4**	30	-	125	
103	Rh	1	4999017	0.90	5496000	**91.0**	30	-	125	
165	Ho	1	2374240	0.61	2487000	**95.5**	30	-	125	
175	Lu	1	2017250	1.31	2103000	**95.9**	30	-	125	
209	Bi	1	2380782	1.23	2573000	**92.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\046SMPL.D\046SMPL.D#
Date Acquired: Sep 13 2011 07:40 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.009**	ug/l	0.01	99.0	900	6	P	
23	**Na**	1	**6.533**	ug/l	6.53	1.0	450000	6	P	
24	**Mg**	1	**0.925**	ug/l	0.93	1.5	450000	6	P	
27	**Al**	1	**1.251**	ug/l	1.25	10.6	450000	6	P	
31	**P**	1	**2.888**	ug/l	2.89	30.6	450000	6	P	
39	**K**	1	**4.661**	ug/l	4.66	48.1	450000	45	P	
44	**Ca**	1	**0.064**	ug/l	0.06	640.4	450000	45	P	
47	**Ti**	1	**0.183**	ug/l	0.18	14.3	4500	45	P	
51	**V**	1	**-0.007**	ug/l	-0.01	57.8	4500	45	P	
52	**Cr**	1	**0.013**	ug/l	0.01	31.0	4500	45	P	
55	**Mn**	1	**0.576**	ug/l	0.58	8.6	4500	45	P	
57	**Fe**	1	**5.078**	ug/l	5.08	8.5	450000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	64.4	4500	74	P	
60	**Ni**	1	**0.007**	ug/l	0.01	113.7	4500	74	P	
63	**Cu**	1	**0.033**	ug/l	0.03	48.6	4500	74	P	
66	**Zn**	1	**0.013**	ug/l	0.01	75.9	4500	74	P	
75	**As**	1	**0.146**	ug/l	0.15	8.5	4500	74	P	
78	**Se**	1	**0.065**	ug/l	0.07	132.5	4500	74	P	
88	**Sr**	1	**0.001**	ug/l	0.00	564.0	4500	74	P	
95	**Mo**	1	**0.092**	ug/l	0.09	22.8	4500	103	P	
109	**Ag**	1	**0.006**	ug/l	0.01	38.6	4500	103	P	
111	**Cd**	1	**0.014**	ug/l	0.01	68.0	4500	103	P	
118	**Sn**	1	**0.187**	ug/l	0.19	13.9	4500	103	P	
123	**Sb**	1	**0.074**	ug/l	0.07	19.8	4500	103	P	
135	**Ba**	1	**0.011**	ug/l	0.01	86.9	4500	103	P	
200	**Hg**	1	**0.026**	ug/l	0.03	14.7	45	209	P	
205	**Tl**	1	**0.236**	ug/l	0.24	10.5	4500	209	P	
208	**Pb**	1	**0.015**	ug/l	0.01	36.3	4500	209	P	
238	**U**	1	**0.013**	ug/l	0.01	15.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61759	0.50	70500	**87.6**	30	-	125	
45	Sc	1	1606711	1.68	1703000	**94.3**	30	-	125	
74	Ge	1	3711998	1.25	3864000	**96.1**	30	-	125	
103	Rh	1	5181689	1.20	5496000	**94.3**	30	-	125	
165	Ho	1	2413354	1.36	2487000	**97.0**	30	-	125	
175	Lu	1	2038896	2.09	2103000	**97.0**	30	-	125	
209	Bi	1	2503957	1.43	2573000	**97.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\047SMPL.D\047SMPL.D#
Date Acquired: Sep 13 2011 07:44 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-23-A Vial Number: 3201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.039**	ug/l	0.39	38.2	900	6	P	
23	**Na**	1	**259.200**	ug/l	2,592.00	4.8	450000	6	P	
24	**Mg**	1	**450.200**	ug/l	4,502.00	3.4	450000	6	P	
27	**Al**	1	**3579.000**	ug/l	35,790.00	3.9	450000	6	A	
31	**P**	1	**214.600**	ug/l	2,146.00	5.5	450000	6	P	
39	**K**	1	**263.700**	ug/l	2,637.00	2.4	450000	45	P	
44	**Ca**	1	**700.800**	ug/l	7,008.00	1.3	450000	45	P	
47	**Ti**	1	**1224.000**	ug/l	12,240.00	0.9	4500	45	P	
51	**V**	1	**57.560**	ug/l	575.60	1.1	4500	45	P	
52	**Cr**	1	**7.876**	ug/l	78.76	1.8	4500	45	P	
55	**Mn**	1	**65.770**	ug/l	657.70	2.1	4500	45	P	
57	**Fe**	1	**14110.000**	ug/l	141,100.00	1.0	450000	74	A	
59	**Co**	1	**2.603**	ug/l	26.03	0.8	4500	74	P	
60	**Ni**	1	**3.212**	ug/l	32.12	2.0	4500	74	P	
63	**Cu**	1	**5.903**	ug/l	59.03	1.5	4500	74	P	
66	**Zn**	1	**21.160**	ug/l	211.60	2.1	4500	74	P	
75	**As**	1	**5.655**	ug/l	56.55	0.8	4500	74	P	
78	**Se**	1	**0.239**	ug/l	2.39	13.2	4500	74	P	
88	**Sr**	1	**4.718**	ug/l	47.18	0.9	4500	74	P	
95	**Mo**	1	**0.311**	ug/l	3.11	12.9	4500	103	P	
109	**Ag**	1	**0.225**	ug/l	2.25	8.7	4500	103	P	
111	**Cd**	1	**0.096**	ug/l	0.96	31.6	4500	103	P	
118	**Sn**	1	**1.548**	ug/l	15.48	2.7	4500	103	P	
123	**Sb**	1	**0.350**	ug/l	3.50	4.7	4500	103	P	
135	**Ba**	1	**5.967**	ug/l	59.67	4.6	4500	103	P	
200	**Hg**	1	**0.121**	ug/l	1.21	3.7	45	209	P	
205	**Tl**	1	**0.119**	ug/l	1.19	10.0	4500	209	P	
208	**Pb**	1	**9.672**	ug/l	96.72	1.1	4500	209	P	
238	**U**	1	**0.101**	ug/l	1.01	4.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61470	3.69	70500	**87.2**	30	-	125	
45	Sc	1	1622459	1.50	1703000	**95.3**	30	-	125	
74	Ge	1	3674337	0.55	3864000	**95.1**	30	-	125	
103	Rh	1	5093543	1.75	5496000	**92.7**	30	-	125	
165	Ho	1	2401304	1.19	2487000	**96.6**	30	-	125	
175	Lu	1	2038077	0.76	2103000	**96.9**	30	-	125	
209	Bi	1	2464393	0.84	2573000	**95.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\048SMPL.D\048SMPL.D#
Date Acquired: Sep 13 2011 07:49 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.420**	ug/l	49.42	1.9	900	6	P	
23	**Na**	1	**5109.000**	ug/l	5,109.00	2.9	450000	6	A	
24	**Mg**	1	**4957.000**	ug/l	4,957.00	0.4	450000	6	A	
27	**Al**	1	**498.900**	ug/l	498.90	1.3	450000	6	P	
31	**P**	1	**4980.000**	ug/l	4,980.00	0.4	450000	6	P	
39	**K**	1	**4833.000**	ug/l	4,833.00	1.9	450000	45	A	
44	**Ca**	1	**4813.000**	ug/l	4,813.00	1.3	450000	45	P	
47	**Ti**	1	**48.620**	ug/l	48.62	1.6	4500	45	P	
51	**V**	1	**48.140**	ug/l	48.14	1.1	4500	45	P	
52	**Cr**	1	**48.160**	ug/l	48.16	1.3	4500	45	P	
55	**Mn**	1	**48.880**	ug/l	48.88	1.7	4500	45	P	
57	**Fe**	1	**4883.000**	ug/l	4,883.00	2.5	450000	74	A	
59	**Co**	1	**48.060**	ug/l	48.06	1.5	4500	74	P	
60	**Ni**	1	**48.750**	ug/l	48.75	1.1	4500	74	P	
63	**Cu**	1	**48.890**	ug/l	48.89	1.1	4500	74	P	
66	**Zn**	1	**48.510**	ug/l	48.51	1.5	4500	74	P	
75	**As**	1	**48.870**	ug/l	48.87	1.4	4500	74	P	
78	**Se**	1	**48.950**	ug/l	48.95	1.0	4500	74	P	
88	**Sr**	1	**49.380**	ug/l	49.38	0.7	4500	74	P	
95	**Mo**	1	**48.140**	ug/l	48.14	1.7	4500	103	P	
109	**Ag**	1	**48.580**	ug/l	48.58	1.7	4500	103	P	
111	**Cd**	1	**48.850**	ug/l	48.85	1.5	4500	103	P	
118	**Sn**	1	**48.920**	ug/l	48.92	1.7	4500	103	P	
123	**Sb**	1	**49.520**	ug/l	49.52	1.9	4500	103	P	
135	**Ba**	1	**49.150**	ug/l	49.15	1.8	4500	103	P	
200	**Hg**	1	**2.454**	ug/l	2.45	4.0	45	209	P	
205	**Tl**	1	**48.580**	ug/l	48.58	1.0	4500	209	P	
208	**Pb**	1	**49.040**	ug/l	49.04	2.7	4500	209	P	
238	**U**	1	**48.910**	ug/l	48.91	1.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62284	1.20	70500	**88.3**	30	-	125	
45	Sc	1	1638313	0.82	1703000	**96.2**	30	-	125	
74	Ge	1	3713488	1.38	3864000	**96.1**	30	-	125	
103	Rh	1	5117638	1.41	5496000	**93.1**	30	-	125	
165	Ho	1	2394939	1.52	2487000	**96.3**	30	-	125	
175	Lu	1	2022686	0.97	2103000	**96.2**	30	-	125	
209	Bi	1	2414499	1.93	2573000	**93.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\049SMPL.D\049SMPL.D#
Date Acquired: Sep 13 2011 07:53 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.013**	ug/l	0.01	38.2	900	6	P	
23	**Na**	1	**6.930**	ug/l	6.93	3.1	450000	6	P	
24	**Mg**	1	**1.061**	ug/l	1.06	7.5	450000	6	P	
27	**Al**	1	**0.467**	ug/l	0.47	8.0	450000	6	P	
31	**P**	1	**0.976**	ug/l	0.98	67.1	450000	6	P	
39	**K**	1	**4.493**	ug/l	4.49	61.0	450000	45	P	
44	**Ca**	1	**0.657**	ug/l	0.66	31.4	450000	45	P	
47	**Ti**	1	**0.181**	ug/l	0.18	37.3	4500	45	P	
51	**V**	1	**0.005**	ug/l	0.01	206.1	4500	45	P	
52	**Cr**	1	**0.013**	ug/l	0.01	140.8	4500	45	P	
55	**Mn**	1	**0.321**	ug/l	0.32	4.6	4500	45	P	
57	**Fe**	1	**3.459**	ug/l	3.46	9.3	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.01	12.8	4500	74	P	
60	**Ni**	1	**0.017**	ug/l	0.02	40.8	4500	74	P	
63	**Cu**	1	**0.021**	ug/l	0.02	36.4	4500	74	P	
66	**Zn**	1	**0.005**	ug/l	0.00	498.3	4500	74	P	
75	**As**	1	**0.105**	ug/l	0.11	25.1	4500	74	P	
78	**Se**	1	**0.162**	ug/l	0.16	48.3	4500	74	P	
88	**Sr**	1	**0.002**	ug/l	0.00	641.9	4500	74	P	
95	**Mo**	1	**0.095**	ug/l	0.09	13.7	4500	103	P	
109	**Ag**	1	**0.009**	ug/l	0.01	24.8	4500	103	P	
111	**Cd**	1	**0.015**	ug/l	0.02	46.3	4500	103	P	
118	**Sn**	1	**0.184**	ug/l	0.18	14.8	4500	103	P	
123	**Sb**	1	**0.069**	ug/l	0.07	26.7	4500	103	P	
135	**Ba**	1	**0.014**	ug/l	0.01	29.5	4500	103	P	
200	**Hg**	1	**0.022**	ug/l	0.02	20.6	45	209	P	
205	**Tl**	1	**0.255**	ug/l	0.25	10.6	4500	209	P	
208	**Pb**	1	**0.012**	ug/l	0.01	126.0	4500	209	P	
238	**U**	1	**0.017**	ug/l	0.02	2.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63185	0.55	70500	**89.6**	30	-	125	
45	Sc	1	1643493	2.29	1703000	**96.5**	30	-	125	
74	Ge	1	3710829	0.85	3864000	**96.0**	30	-	125	
103	Rh	1	5204685	0.94	5496000	**94.7**	30	-	125	
165	Ho	1	2403119	0.72	2487000	**96.6**	30	-	125	
175	Lu	1	2044979	1.56	2103000	**97.2**	30	-	125	
209	Bi	1	2501472	1.84	2573000	**97.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\050SMPL.D\050SMPL.D#
Date Acquired: Sep 13 2011 07:57 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-95113/21-A Vial Number: 3301
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.006**	ug/l	0.06	106.8	900	6	P	
23	Na	1	**8.358**	ug/l	83.58	19.7	450000	6	P	
24	Mg	1	**1.104**	ug/l	11.04	8.6	450000	6	P	
27	Al	1	**2.231**	ug/l	22.31	8.4	450000	6	P	
31	P	1	**-0.705**	ug/l	-7.05	114.7	450000	6	P	
39	K	1	**4.207**	ug/l	42.07	80.6	450000	45	P	
44	Ca	1	**5.389**	ug/l	53.89	9.5	450000	45	P	
47	Ti	1	**0.187**	ug/l	1.87	17.8	4500	45	P	
51	V	1	**0.009**	ug/l	0.09	53.9	4500	45	P	
52	Cr	1	**0.020**	ug/l	0.20	34.0	4500	45	P	
55	Mn	1	**0.339**	ug/l	3.39	8.0	4500	45	P	
57	Fe	1	**3.791**	ug/l	37.91	9.0	450000	74	P	
59	Co	1	**0.000**	ug/l	0.00	620.1	4500	74	P	
60	Ni	1	**0.025**	ug/l	0.25	20.3	4500	74	P	
63	Cu	1	**0.133**	ug/l	1.33	6.4	4500	74	P	
66	Zn	1	**0.530**	ug/l	5.30	8.9	4500	74	P	
75	As	1	**0.058**	ug/l	0.58	31.0	4500	74	P	
78	Se	1	**0.082**	ug/l	0.82	90.2	4500	74	P	
88	Sr	1	**0.028**	ug/l	0.28	27.1	4500	74	P	
95	Mo	1	**0.027**	ug/l	0.27	67.9	4500	103	P	
109	Ag	1	**0.000**	ug/l	0.00	307.6	4500	103	P	
111	Cd	1	**0.008**	ug/l	0.08	132.4	4500	103	P	
118	Sn	1	**0.094**	ug/l	0.94	7.8	4500	103	P	
123	Sb	1	**0.028**	ug/l	0.28	40.6	4500	103	P	
135	Ba	1	**0.080**	ug/l	0.80	17.8	4500	103	P	
200	Hg	1	**0.020**	ug/l	0.20	17.6	45	209	P	
205	Tl	1	**0.087**	ug/l	0.87	17.0	4500	209	P	
208	Pb	1	**0.022**	ug/l	0.22	19.9	4500	209	P	
238	U	1	**0.003**	ug/l	0.03	23.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63060	1.03	70500	**89.4**	30	-	125	
45	Sc	1	1625507	2.71	1703000	**95.4**	30	-	125	
74	Ge	1	3707132	0.86	3864000	**95.9**	30	-	125	
103	Rh	1	5228434	0.90	5496000	**95.1**	30	-	125	
165	Ho	1	2428849	1.45	2487000	**97.7**	30	-	125	
175	Lu	1	2037629	0.58	2103000	**96.9**	30	-	125	
209	Bi	1	2492368	0.81	2573000	**96.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\051SMPL.D\051SMPL.D#
Date Acquired: Sep 13 2011 08:02 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-B-1-E SD Vial Number: 3302
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.084**	ug/l	4.20	7.4	900	6	P	
23	**Na**	1	**19.570**	ug/l	978.50	7.6	450000	6	P	
24	**Mg**	1	**1469.000**	ug/l	73,450.00	1.8	450000	6	A	
27	**Al**	1	**8652.000**	ug/l	432,600.00	1.1	450000	6	A	
31	**P**	1	**134.100**	ug/l	6,705.00	3.9	450000	6	P	
39	**K**	1	**103.500**	ug/l	5,175.00	2.7	450000	45	P	
44	**Ca**	1	**284.200**	ug/l	14,210.00	1.5	450000	45	P	
47	**Ti**	1	**332.700**	ug/l	16,635.00	1.3	4500	45	P	
51	**V**	1	**23.610**	ug/l	1,180.50	2.0	4500	45	P	
52	**Cr**	1	**9.489**	ug/l	474.45	2.0	4500	45	P	
55	**Mn**	1	**60.410**	ug/l	3,020.50	1.2	4500	45	P	
57	**Fe**	1	**10480.000**	ug/l	524,000.00	0.5	450000	74	A	
59	**Co**	1	**2.253**	ug/l	112.65	1.3	4500	74	P	
60	**Ni**	1	**7.002**	ug/l	350.10	2.8	4500	74	P	
63	**Cu**	1	**11.760**	ug/l	588.00	1.2	4500	74	P	
66	**Zn**	1	**12.480**	ug/l	624.00	1.3	4500	74	P	
75	**As**	1	**3.735**	ug/l	186.75	3.6	4500	74	P	
78	**Se**	1	**0.305**	ug/l	15.24	11.8	4500	74	P	
88	**Sr**	1	**1.769**	ug/l	88.45	1.1	4500	74	P	
95	**Mo**	1	**0.251**	ug/l	12.55	4.8	4500	103	P	
109	**Ag**	1	**0.064**	ug/l	3.22	3.0	4500	103	P	
111	**Cd**	1	**0.083**	ug/l	4.14	59.6	4500	103	P	
118	**Sn**	1	**0.415**	ug/l	20.74	1.5	4500	103	P	
123	**Sb**	1	**0.099**	ug/l	4.96	6.3	4500	103	P	
135	**Ba**	1	**11.950**	ug/l	597.50	2.9	4500	103	P	
200	**Hg**	1	**0.064**	ug/l	3.18	6.5	45	209	P	
205	**Tl**	1	**0.095**	ug/l	4.75	9.0	4500	209	P	
208	**Pb**	1	**2.969**	ug/l	148.45	4.8	4500	209	P	
238	**U**	1	**0.113**	ug/l	5.63	6.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68530	1.04	70500	**97.2**	30	-	125	
45	Sc	1	1695881	1.48	1703000	**99.6**	30	-	125	
74	Ge	1	3780454	0.51	3864000	**97.8**	30	-	125	
103	Rh	1	5180045	2.08	5496000	**94.3**	30	-	125	
165	Ho	1	2392444	0.84	2487000	**96.2**	30	-	125	
175	Lu	1	2029494	0.80	2103000	**96.5**	30	-	125	
209	Bi	1	2392718	3.26	2573000	**93.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\052SMPL.D\052SMPL.D#
Date Acquired: Sep 13 2011 08:06 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-B-1-E Vial Number: 3303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.418**	ug/l	4.18	7.6	900	6	P	
23	**Na**	1	**139.100**	ug/l	1,391.00	4.3	450000	6	P	
24	**Mg**	1	**7524.000**	ug/l	75,240.00	2.0	450000	6	A	
27	**Al**	1	**45520.000**	ug/l	455,200.00	1.6	450000	6	A	
31	**P**	1	**722.300**	ug/l	7,223.00	0.6	450000	6	P	
39	**K**	1	**501.900**	ug/l	5,019.00	0.4	450000	45	P	
44	**Ca**	1	**1431.000**	ug/l	14,310.00	0.8	450000	45	P	
47	**Ti**	1	**1683.000**	ug/l	16,830.00	0.4	4500	45	P	
51	**V**	1	**118.400**	ug/l	1,184.00	2.1	4500	45	A	
52	**Cr**	1	**47.170**	ug/l	471.70	0.5	4500	45	P	
55	**Mn**	1	**300.000**	ug/l	3,000.00	0.9	4500	45	A	
57	**Fe**	1	**51570.000**	ug/l	515,700.00	1.8	450000	74	A	
59	**Co**	1	**11.190**	ug/l	111.90	1.9	4500	74	P	
60	**Ni**	1	**33.900**	ug/l	339.00	2.8	4500	74	P	
63	**Cu**	1	**56.950**	ug/l	569.50	1.7	4500	74	P	
66	**Zn**	1	**62.580**	ug/l	625.80	2.2	4500	74	P	
75	**As**	1	**18.930**	ug/l	189.30	3.2	4500	74	P	
78	**Se**	1	**1.146**	ug/l	11.46	4.7	4500	74	P	
88	**Sr**	1	**9.020**	ug/l	90.20	2.9	4500	74	P	
95	**Mo**	1	**1.237**	ug/l	12.37	1.9	4500	103	P	
109	**Ag**	1	**0.334**	ug/l	3.34	2.5	4500	103	P	
111	**Cd**	1	**0.355**	ug/l	3.55	17.7	4500	103	P	
118	**Sn**	1	**1.920**	ug/l	19.20	1.1	4500	103	P	
123	**Sb**	1	**0.429**	ug/l	4.29	5.4	4500	103	P	
135	**Ba**	1	**60.420**	ug/l	604.20	1.7	4500	103	P	
200	**Hg**	1	**0.271**	ug/l	2.71	3.1	45	209	P	
205	**Tl**	1	**0.182**	ug/l	1.82	3.6	4500	209	P	
208	**Pb**	1	**14.510**	ug/l	145.10	2.4	4500	209	P	
238	**U**	1	**0.566**	ug/l	5.66	4.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59485	1.23	70500	**84.4**	30	-	125	
45	Sc	1	1583653	0.30	1703000	**93.0**	30	-	125	
74	Ge	1	3582847	1.89	3864000	**92.7**	30	-	125	
103	Rh	1	4862207	1.32	5496000	**88.5**	30	-	125	
165	Ho	1	2328859	0.59	2487000	**93.6**	30	-	125	
175	Lu	1	1977176	1.68	2103000	**94.0**	30	-	125	
209	Bi	1	2379157	2.08	2573000	**92.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\053SMPL.D\053SMPL.D#
Date Acquired: Sep 13 2011 08:10 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-B-1-F DU Vial Number: 3304
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.497**	ug/l	4.97	5.8	900	6	P	
23	**Na**	1	**149.500**	ug/l	1,495.00	5.1	450000	6	P	
24	**Mg**	1	**8145.000**	ug/l	81,450.00	0.1	450000	6	A	
27	**Al**	1	**49610.000**	ug/l	496,100.00	1.3	450000	6	A	
31	**P**	1	**789.600**	ug/l	7,896.00	2.9	450000	6	P	
39	**K**	1	**562.200**	ug/l	5,622.00	3.3	450000	45	M	
44	**Ca**	1	**1577.000**	ug/l	15,770.00	2.9	450000	45	P	
47	**Ti**	1	**1864.000**	ug/l	18,640.00	3.1	4500	45	P	
51	**V**	1	**134.000**	ug/l	1,340.00	2.7	4500	45	A	
52	**Cr**	1	**52.700**	ug/l	527.00	3.4	4500	45	P	
55	**Mn**	1	**328.100**	ug/l	3,281.00	1.9	4500	45	A	
57	**Fe**	1	**56750.000**	ug/l	567,500.00	0.3	450000	74	A	
59	**Co**	1	**12.320**	ug/l	123.20	2.4	4500	74	P	
60	**Ni**	1	**37.540**	ug/l	375.40	1.9	4500	74	P	
63	**Cu**	1	**62.980**	ug/l	629.80	1.3	4500	74	P	
66	**Zn**	1	**69.320**	ug/l	693.20	2.2	4500	74	P	
75	**As**	1	**20.960**	ug/l	209.60	1.6	4500	74	P	
78	**Se**	1	**1.350**	ug/l	13.50	1.9	4500	74	P	
88	**Sr**	1	**9.960**	ug/l	99.60	1.1	4500	74	P	
95	**Mo**	1	**1.347**	ug/l	13.47	5.8	4500	103	P	
109	**Ag**	1	**0.382**	ug/l	3.82	3.2	4500	103	P	
111	**Cd**	1	**0.415**	ug/l	4.15	6.4	4500	103	P	
118	**Sn**	1	**2.116**	ug/l	21.16	3.4	4500	103	P	
123	**Sb**	1	**0.447**	ug/l	4.47	1.8	4500	103	P	
135	**Ba**	1	**66.150**	ug/l	661.50	1.9	4500	103	P	
200	**Hg**	1	**0.296**	ug/l	2.96	4.5	45	209	P	
205	**Tl**	1	**0.190**	ug/l	1.90	12.7	4500	209	P	
208	**Pb**	1	**15.970**	ug/l	159.70	2.6	4500	209	P	
238	**U**	1	**0.640**	ug/l	6.40	4.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61044	0.87	70500	**86.6**	30	-	125	
45	Sc	1	1604402	2.73	1703000	**94.2**	30	-	125	
74	Ge	1	3591088	0.78	3864000	**92.9**	30	-	125	
103	Rh	1	4929820	1.71	5496000	**89.7**	30	-	125	
165	Ho	1	2358655	0.49	2487000	**94.8**	30	-	125	
175	Lu	1	2004700	1.41	2103000	**95.3**	30	-	125	
209	Bi	1	2387247	1.50	2573000	**92.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\054SMPL.D\054SMPL.D#
Date Acquired: Sep 13 2011 08:15 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-B-1-G MS Vial Number: 3305
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.594**	ug/l	129.70	0.6	900	6	P	
23	**Na**	1	**545.000**	ug/l	27,250.00	3.4	450000	6	A	
24	**Mg**	1	**2292.000**	ug/l	114,600.00	1.4	450000	6	A	
27	**Al**	1	**11310.000**	ug/l	565,500.00	2.2	450000	6	A	
31	**P**	1	**621.200**	ug/l	31,060.00	4.0	450000	6	P	
39	**K**	1	**687.500**	ug/l	34,375.00	2.5	450000	45	A	
44	**Ca**	1	**967.100**	ug/l	48,355.00	1.1	450000	45	P	
47	**Ti**	1	**588.900**	ug/l	29,445.00	1.2	4500	45	P	
51	**V**	1	**55.520**	ug/l	2,776.00	1.9	4500	45	P	
52	**Cr**	1	**23.130**	ug/l	1,156.50	2.5	4500	45	P	
55	**Mn**	1	**97.720**	ug/l	4,886.00	2.4	4500	45	P	
57	**Fe**	1	**13110.000**	ug/l	655,500.00	2.7	450000	74	A	
59	**Co**	1	**27.860**	ug/l	1,393.00	2.9	4500	74	P	
60	**Ni**	1	**34.990**	ug/l	1,749.50	3.9	4500	74	P	
63	**Cu**	1	**27.580**	ug/l	1,379.00	3.3	4500	74	P	
66	**Zn**	1	**41.720**	ug/l	2,086.00	2.5	4500	74	P	
75	**As**	1	**104.900**	ug/l	5,245.00	3.3	4500	74	P	
78	**Se**	1	**100.000**	ug/l	5,000.00	3.2	4500	74	P	
88	**Sr**	1	**2.767**	ug/l	138.35	2.3	4500	74	P	
95	**Mo**	1	**124.000**	ug/l	6,200.00	2.2	4500	103	P	
109	**Ag**	1	**14.910**	ug/l	745.50	2.4	4500	103	P	
111	**Cd**	1	**2.603**	ug/l	130.15	4.4	4500	103	P	
118	**Sn**	1	**117.900**	ug/l	5,895.00	2.8	4500	103	P	
123	**Sb**	1	**36.470**	ug/l	1,823.50	2.5	4500	103	P	
135	**Ba**	1	**116.600**	ug/l	5,830.00	1.8	4500	103	P	
200	**Hg**	1	**1.267**	ug/l	63.35	4.5	45	209	P	
205	**Tl**	1	**105.700**	ug/l	5,285.00	2.7	4500	209	A	
208	**Pb**	1	**29.380**	ug/l	1,469.00	4.1	4500	209	P	
238	**U**	1	**0.128**	ug/l	6.39	3.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69729	2.25	70500	**98.9**	30	-	125	
45	Sc	1	1664258	1.07	1703000	**97.7**	30	-	125	
74	Ge	1	3758475	1.84	3864000	**97.3**	30	-	125	
103	Rh	1	5173372	1.01	5496000	**94.1**	30	-	125	
165	Ho	1	2396537	1.67	2487000	**96.4**	30	-	125	
175	Lu	1	2024789	0.85	2103000	**96.3**	30	-	125	
209	Bi	1	2412289	2.87	2573000	**93.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\055SMPL.D\055SMPL.D#
Date Acquired: Sep 13 2011 08:19 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-B-1-H MSD Vial Number: 3306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.339**	ug/l	116.95	0.6	900	6	P	
23	**Na**	1	**476.600**	ug/l	23,830.00	0.5	450000	6	A	
24	**Mg**	1	**1978.000**	ug/l	98,900.00	0.6	450000	6	A	
27	**Al**	1	**9507.000**	ug/l	475,350.00	1.8	450000	6	A	
31	**P**	1	**553.400**	ug/l	27,670.00	1.0	450000	6	P	
39	**K**	1	**588.000**	ug/l	29,400.00	3.3	450000	45	A	
44	**Ca**	1	**818.900**	ug/l	40,945.00	2.9	450000	45	P	
47	**Ti**	1	**502.300**	ug/l	25,115.00	3.0	4500	45	P	
51	**V**	1	**46.870**	ug/l	2,343.50	3.6	4500	45	P	
52	**Cr**	1	**18.970**	ug/l	948.50	2.7	4500	45	P	
55	**Mn**	1	**88.670**	ug/l	4,433.50	3.3	4500	45	P	
57	**Fe**	1	**11310.000**	ug/l	565,500.00	0.9	450000	74	A	
59	**Co**	1	**24.690**	ug/l	1,234.50	1.4	4500	74	P	
60	**Ni**	1	**30.570**	ug/l	1,528.50	2.0	4500	74	P	
63	**Cu**	1	**24.180**	ug/l	1,209.00	1.1	4500	74	P	
66	**Zn**	1	**37.510**	ug/l	1,875.50	3.1	4500	74	P	
75	**As**	1	**92.740**	ug/l	4,637.00	1.6	4500	74	P	
78	**Se**	1	**89.440**	ug/l	4,472.00	2.1	4500	74	P	
88	**Sr**	1	**2.436**	ug/l	121.80	1.2	4500	74	P	
95	**Mo**	1	**109.900**	ug/l	5,495.00	1.4	4500	103	P	
109	**Ag**	1	**13.250**	ug/l	662.50	2.2	4500	103	P	
111	**Cd**	1	**2.304**	ug/l	115.20	1.7	4500	103	P	
118	**Sn**	1	**103.400**	ug/l	5,170.00	2.9	4500	103	P	
123	**Sb**	1	**32.110**	ug/l	1,605.50	2.3	4500	103	P	
135	**Ba**	1	**101.500**	ug/l	5,075.00	2.6	4500	103	P	
200	**Hg**	1	**1.129**	ug/l	56.45	5.4	45	209	P	
205	**Tl**	1	**93.210**	ug/l	4,660.50	3.3	4500	209	A	
208	**Pb**	1	**25.990**	ug/l	1,299.50	4.4	4500	209	P	
238	**U**	1	**0.110**	ug/l	5.50	1.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69887	0.96	70500	**99.1**	30	-	125	
45	Sc	1	1694736	2.04	1703000	**99.5**	30	-	125	
74	Ge	1	3752694	0.39	3864000	**97.1**	30	-	125	
103	Rh	1	5197565	0.56	5496000	**94.6**	30	-	125	
165	Ho	1	2403252	0.95	2487000	**96.6**	30	-	125	
175	Lu	1	2023155	2.15	2103000	**96.2**	30	-	125	
209	Bi	1	2421210	2.75	2573000	**94.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\056SMPL.D\056SMPL.D#
Date Acquired: Sep 13 2011 08:24 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-B-1-E PDS Vial Number: 3307
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.555**	ug/l	127.75	4.2	900	6	P	
23	**Na**	1	**527.100**	ug/l	26,355.00	1.5	450000	6	A	
24	**Mg**	1	**2231.000**	ug/l	111,550.00	1.3	450000	6	A	
27	**Al**	1	**10910.000**	ug/l	545,500.00	1.5	450000	6	A	
31	**P**	1	**615.200**	ug/l	30,760.00	3.2	450000	6	P	
39	**K**	1	**671.800**	ug/l	33,590.00	3.9	450000	45	A	
44	**Ca**	1	**941.700**	ug/l	47,085.00	2.0	450000	45	P	
47	**Ti**	1	**572.500**	ug/l	28,625.00	2.5	4500	45	P	
51	**V**	1	**54.040**	ug/l	2,702.00	2.6	4500	45	P	
52	**Cr**	1	**22.290**	ug/l	1,114.50	2.5	4500	45	P	
55	**Mn**	1	**95.420**	ug/l	4,771.00	2.2	4500	45	P	
57	**Fe**	1	**12640.000**	ug/l	632,000.00	1.5	450000	74	A	
59	**Co**	1	**27.010**	ug/l	1,350.50	2.8	4500	74	P	
60	**Ni**	1	**33.980**	ug/l	1,699.00	1.2	4500	74	P	
63	**Cu**	1	**26.740**	ug/l	1,337.00	2.2	4500	74	P	
66	**Zn**	1	**40.160**	ug/l	2,008.00	1.4	4500	74	P	
75	**As**	1	**101.900**	ug/l	5,095.00	2.6	4500	74	P	
78	**Se**	1	**96.980**	ug/l	4,849.00	1.3	4500	74	P	
88	**Sr**	1	**2.663**	ug/l	133.15	1.2	4500	74	P	
95	**Mo**	1	**120.400**	ug/l	6,020.00	1.2	4500	103	P	
109	**Ag**	1	**14.630**	ug/l	731.50	0.5	4500	103	P	
111	**Cd**	1	**2.541**	ug/l	127.05	1.1	4500	103	P	
118	**Sn**	1	**115.000**	ug/l	5,750.00	1.0	4500	103	P	
123	**Sb**	1	**35.430**	ug/l	1,771.50	0.7	4500	103	P	
135	**Ba**	1	**113.100**	ug/l	5,655.00	1.8	4500	103	P	
200	**Hg**	1	**1.265**	ug/l	63.25	4.8	45	209	P	
205	**Tl**	1	**103.300**	ug/l	5,165.00	2.9	4500	209	A	
208	**Pb**	1	**28.810**	ug/l	1,440.50	3.4	4500	209	P	
238	**U**	1	**0.131**	ug/l	6.53	4.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69466	1.49	70500	**98.5**	30	-	125	
45	Sc	1	1668884	2.19	1703000	**98.0**	30	-	125	
74	Ge	1	3811383	1.06	3864000	**98.6**	30	-	125	
103	Rh	1	5205781	0.72	5496000	**94.7**	30	-	125	
165	Ho	1	2414244	1.90	2487000	**97.1**	30	-	125	
175	Lu	1	2010992	1.75	2103000	**95.6**	30	-	125	
209	Bi	1	2396504	2.72	2573000	**93.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\057SMPL.D\057SMPL.D#
Date Acquired: Sep 13 2011 08:28 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95113/22-A Vial Number: 3308
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.918**	ug/l	95.90	1.2	900	6	P	
23	**Na**	1	**422.400**	ug/l	21,120.00	1.0	450000	6	A	
24	**Mg**	1	**420.400**	ug/l	21,020.00	0.8	450000	6	P	
27	**Al**	1	**83.210**	ug/l	4,160.50	1.3	450000	6	P	
31	**P**	1	**396.100**	ug/l	19,805.00	1.5	450000	6	P	
39	**K**	1	**415.400**	ug/l	20,770.00	3.4	450000	45	P	
44	**Ca**	1	**411.500**	ug/l	20,575.00	2.8	450000	45	P	
47	**Ti**	1	**95.530**	ug/l	4,776.50	3.6	4500	45	P	
51	**V**	1	**19.730**	ug/l	986.50	3.0	4500	45	P	
52	**Cr**	1	**7.991**	ug/l	399.55	3.3	4500	45	P	
55	**Mn**	1	**20.450**	ug/l	1,022.50	2.4	4500	45	P	
57	**Fe**	1	**437.400**	ug/l	21,870.00	2.2	450000	74	P	
59	**Co**	1	**19.400**	ug/l	970.00	0.9	4500	74	P	
60	**Ni**	1	**19.920**	ug/l	996.00	2.5	4500	74	P	
63	**Cu**	1	**10.140**	ug/l	507.00	0.7	4500	74	P	
66	**Zn**	1	**21.560**	ug/l	1,078.00	0.9	4500	74	P	
75	**As**	1	**80.090**	ug/l	4,004.50	1.3	4500	74	P	
78	**Se**	1	**78.410**	ug/l	3,920.50	1.5	4500	74	P	
88	**Sr**	1	**0.005**	ug/l	0.27	161.5	4500	74	P	
95	**Mo**	1	**96.990**	ug/l	4,849.50	2.3	4500	103	P	
109	**Ag**	1	**12.000**	ug/l	600.00	2.6	4500	103	P	
111	**Cd**	1	**2.023**	ug/l	101.15	3.5	4500	103	P	
118	**Sn**	1	**99.920**	ug/l	4,996.00	1.4	4500	103	P	
123	**Sb**	1	**57.580**	ug/l	2,879.00	1.7	4500	103	P	
135	**Ba**	1	**78.660**	ug/l	3,933.00	0.9	4500	103	P	
200	**Hg**	1	**0.986**	ug/l	49.29	0.5	45	209	P	
205	**Tl**	1	**77.610**	ug/l	3,880.50	4.5	4500	209	A	
208	**Pb**	1	**19.800**	ug/l	990.00	0.1	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	126.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62925	0.65	70500	**89.3**	30	-	125	
45	Sc	1	1615725	2.95	1703000	**94.9**	30	-	125	
74	Ge	1	3752482	1.04	3864000	**97.1**	30	-	125	
103	Rh	1	5230338	1.21	5496000	**95.2**	30	-	125	
165	Ho	1	2414868	0.88	2487000	**97.1**	30	-	125	
175	Lu	1	2052737	1.18	2103000	**97.6**	30	-	125	
209	Bi	1	2534746	0.81	2573000	**98.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\058SMPL.D\058SMPL.D#
Date Acquired: Sep 13 2011 08:32 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95113/23-A Vial Number: 3309
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.946**	ug/l	97.30	6.3	900	6	P	
23	**Na**	1	**425.600**	ug/l	21,280.00	2.3	450000	6	A	
24	**Mg**	1	**419.800**	ug/l	20,990.00	1.1	450000	6	P	
27	**Al**	1	**83.020**	ug/l	4,151.00	3.1	450000	6	P	
31	**P**	1	**389.300**	ug/l	19,465.00	2.3	450000	6	P	
39	**K**	1	**414.800**	ug/l	20,740.00	3.5	450000	45	P	
44	**Ca**	1	**397.700**	ug/l	19,885.00	1.7	450000	45	P	
47	**Ti**	1	**95.540**	ug/l	4,777.00	2.9	4500	45	P	
51	**V**	1	**19.770**	ug/l	988.50	2.7	4500	45	P	
52	**Cr**	1	**8.115**	ug/l	405.75	2.1	4500	45	P	
55	**Mn**	1	**20.310**	ug/l	1,015.50	2.5	4500	45	P	
57	**Fe**	1	**442.400**	ug/l	22,120.00	2.0	450000	74	P	
59	**Co**	1	**19.700**	ug/l	985.00	1.7	4500	74	P	
60	**Ni**	1	**20.210**	ug/l	1,010.50	0.7	4500	74	P	
63	**Cu**	1	**10.350**	ug/l	517.50	1.0	4500	74	P	
66	**Zn**	1	**20.420**	ug/l	1,021.00	1.3	4500	74	P	
75	**As**	1	**80.270**	ug/l	4,013.50	1.4	4500	74	P	
78	**Se**	1	**79.150**	ug/l	3,957.50	1.5	4500	74	P	
88	**Sr**	1	**-0.009**	ug/l	-0.43	78.1	4500	74	P	
95	**Mo**	1	**97.190**	ug/l	4,859.50	1.9	4500	103	P	
109	**Ag**	1	**12.100**	ug/l	605.00	2.0	4500	103	P	
111	**Cd**	1	**2.018**	ug/l	100.90	6.1	4500	103	P	
118	**Sn**	1	**98.710**	ug/l	4,935.50	1.2	4500	103	P	
123	**Sb**	1	**57.260**	ug/l	2,863.00	0.9	4500	103	P	
135	**Ba**	1	**78.730**	ug/l	3,936.50	2.1	4500	103	P	
200	**Hg**	1	**0.999**	ug/l	49.97	2.2	45	209	P	
205	**Tl**	1	**78.400**	ug/l	3,920.00	2.5	4500	209	A	
208	**Pb**	1	**19.920**	ug/l	996.00	1.6	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	117.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62914	0.82	70500	**89.2**	30	-	125	
45	Sc	1	1630947	2.64	1703000	**95.8**	30	-	125	
74	Ge	1	3740846	1.42	3864000	**96.8**	30	-	125	
103	Rh	1	5268708	0.73	5496000	**95.9**	30	-	125	
165	Ho	1	2442689	0.30	2487000	**98.2**	30	-	125	
175	Lu	1	2054951	1.86	2103000	**97.7**	30	-	125	
209	Bi	1	2525358	0.99	2573000	**98.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\059SMPL.D\059SMPL.D#
Date Acquired: Sep 13 2011 08:37 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-95113/24-A Vial Number: 3310
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**45.720**	ug/l	914.40	0.9	900	6	P	
23	**Na**	1	**394.900**	ug/l	7,898.00	3.4	450000	6	A	
24	**Mg**	1	**1540.000**	ug/l	30,800.00	0.4	450000	6	A	
27	**Al**	1	**4046.000**	ug/l	80,920.00	3.3	450000	6	A	
31	**P**	1	**259.700**	ug/l	5,194.00	2.1	450000	6	P	
39	**K**	1	**1318.000**	ug/l	26,360.00	0.7	450000	45	A	
44	**Ca**	1	**3459.000**	ug/l	69,180.00	1.7	450000	45	P	
47	**Ti**	1	**109.800**	ug/l	2,196.00	1.4	4500	45	P	
51	**V**	1	**57.210**	ug/l	1,144.20	1.5	4500	45	P	
52	**Cr**	1	**48.580**	ug/l	971.60	1.8	4500	45	P	
55	**Mn**	1	**242.900**	ug/l	4,858.00	0.6	4500	45	A	
57	**Fe**	1	**7259.000**	ug/l	145,180.00	2.3	450000	74	A	
59	**Co**	1	**72.130**	ug/l	1,442.60	1.2	4500	74	P	
60	**Ni**	1	**58.610**	ug/l	1,172.20	1.9	4500	74	P	
63	**Cu**	1	**38.180**	ug/l	763.60	1.5	4500	74	P	
66	**Zn**	1	**155.100**	ug/l	3,102.00	1.5	4500	74	P	
75	**As**	1	**57.650**	ug/l	1,153.00	0.7	4500	74	P	
78	**Se**	1	**111.000**	ug/l	2,220.00	0.5	4500	74	P	
88	**Sr**	1	**59.190**	ug/l	1,183.80	2.1	4500	74	P	
95	**Mo**	1	**47.480**	ug/l	949.60	1.8	4500	103	P	
109	**Ag**	1	**26.520**	ug/l	530.40	1.4	4500	103	P	
111	**Cd**	1	**58.210**	ug/l	1,164.20	0.9	4500	103	P	
118	**Sn**	1	**71.100**	ug/l	1,422.00	1.7	4500	103	P	
123	**Sb**	1	**112.500**	ug/l	2,250.00	1.1	4500	103	P	
135	**Ba**	1	**168.000**	ug/l	3,360.00	2.2	4500	103	P	
200	**Hg**	1	**8.390**	ug/l	167.80	2.2	45	209	P	
205	**Tl**	1	**89.660**	ug/l	1,793.20	1.6	4500	209	A	
208	**Pb**	1	**84.090**	ug/l	1,681.80	1.8	4500	209	A	
238	**U**	1	**0.536**	ug/l	10.71	5.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62962	0.39	70500	**89.3**	30	-	125	
45	Sc	1	1627237	2.04	1703000	**95.6**	30	-	125	
74	Ge	1	3714335	0.84	3864000	**96.1**	30	-	125	
103	Rh	1	5162514	0.87	5496000	**93.9**	30	-	125	
165	Ho	1	2426400	0.49	2487000	**97.6**	30	-	125	
175	Lu	1	2043800	1.52	2103000	**97.2**	30	-	125	
209	Bi	1	2468073	2.42	2573000	**95.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\060SMPL.D\060SMPL.D#
Date Acquired: Sep 13 2011 08:41 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.050**	ug/l	49.05	1.0	900	6	P	
23	**Na**	1	**4972.000**	ug/l	4,972.00	2.0	450000	6	A	
24	**Mg**	1	**4899.000**	ug/l	4,899.00	1.0	450000	6	A	
27	**Al**	1	**488.700**	ug/l	488.70	1.0	450000	6	P	
31	**P**	1	**4925.000**	ug/l	4,925.00	0.6	450000	6	P	
39	**K**	1	**4880.000**	ug/l	4,880.00	2.8	450000	45	A	
44	**Ca**	1	**4841.000**	ug/l	4,841.00	2.2	450000	45	P	
47	**Ti**	1	**48.230**	ug/l	48.23	2.0	4500	45	P	
51	**V**	1	**48.350**	ug/l	48.35	2.1	4500	45	P	
52	**Cr**	1	**48.570**	ug/l	48.57	2.0	4500	45	P	
55	**Mn**	1	**48.730**	ug/l	48.73	1.4	4500	45	P	
57	**Fe**	1	**4894.000**	ug/l	4,894.00	2.6	450000	74	A	
59	**Co**	1	**47.930**	ug/l	47.93	1.6	4500	74	P	
60	**Ni**	1	**48.820**	ug/l	48.82	2.1	4500	74	P	
63	**Cu**	1	**48.960**	ug/l	48.96	2.5	4500	74	P	
66	**Zn**	1	**48.480**	ug/l	48.48	1.9	4500	74	P	
75	**As**	1	**48.530**	ug/l	48.53	2.1	4500	74	P	
78	**Se**	1	**49.360**	ug/l	49.36	1.8	4500	74	P	
88	**Sr**	1	**48.730**	ug/l	48.73	1.8	4500	74	P	
95	**Mo**	1	**49.030**	ug/l	49.03	0.5	4500	103	P	
109	**Ag**	1	**48.980**	ug/l	48.98	0.7	4500	103	P	
111	**Cd**	1	**49.250**	ug/l	49.25	2.3	4500	103	P	
118	**Sn**	1	**49.550**	ug/l	49.55	1.5	4500	103	P	
123	**Sb**	1	**49.610**	ug/l	49.61	0.6	4500	103	P	
135	**Ba**	1	**49.960**	ug/l	49.96	1.0	4500	103	P	
200	**Hg**	1	**2.449**	ug/l	2.45	1.4	45	209	P	
205	**Tl**	1	**48.580**	ug/l	48.58	0.3	4500	209	P	
208	**Pb**	1	**48.780**	ug/l	48.78	1.2	4500	209	P	
238	**U**	1	**48.770**	ug/l	48.77	0.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64674	1.17	70500	**91.7**	30	-	125	
45	Sc	1	1664468	2.28	1703000	**97.7**	30	-	125	
74	Ge	1	3785465	1.65	3864000	**98.0**	30	-	125	
103	Rh	1	5129609	0.33	5496000	**93.3**	30	-	125	
165	Ho	1	2402912	1.71	2487000	**96.6**	30	-	125	
175	Lu	1	2037131	0.63	2103000	**96.9**	30	-	125	
209	Bi	1	2434941	0.14	2573000	**94.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\061SMPL.D\061SMPL.D#
Date Acquired: Sep 13 2011 08:45 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.01	15.4	900	6	P	
23	**Na**	1	**4.960**	ug/l	4.96	28.0	450000	6	P	
24	**Mg**	1	**1.139**	ug/l	1.14	8.3	450000	6	P	
27	**Al**	1	**0.405**	ug/l	0.41	11.9	450000	6	P	
31	**P**	1	**-0.318**	ug/l	-0.32	224.8	450000	6	P	
39	**K**	1	**5.318**	ug/l	5.32	70.1	450000	45	P	
44	**Ca**	1	**0.307**	ug/l	0.31	144.4	450000	45	P	
47	**Ti**	1	**0.076**	ug/l	0.08	20.3	4500	45	P	
51	**V**	1	**0.023**	ug/l	0.02	39.0	4500	45	P	
52	**Cr**	1	**0.001**	ug/l	0.00	635.7	4500	45	P	
55	**Mn**	1	**0.090**	ug/l	0.09	3.7	4500	45	P	
57	**Fe**	1	**2.829**	ug/l	2.83	9.9	450000	74	P	
59	**Co**	1	**0.011**	ug/l	0.01	24.2	4500	74	P	
60	**Ni**	1	**0.013**	ug/l	0.01	54.8	4500	74	P	
63	**Cu**	1	**0.058**	ug/l	0.06	20.7	4500	74	P	
66	**Zn**	1	**0.009**	ug/l	0.01	168.6	4500	74	P	
75	**As**	1	**0.047**	ug/l	0.05	32.5	4500	74	P	
78	**Se**	1	**0.109**	ug/l	0.11	56.7	4500	74	P	
88	**Sr**	1	**0.011**	ug/l	0.01	88.2	4500	74	P	
95	**Mo**	1	**0.140**	ug/l	0.14	30.2	4500	103	P	
109	**Ag**	1	**0.010**	ug/l	0.01	20.6	4500	103	P	
111	**Cd**	1	**0.019**	ug/l	0.02	73.1	4500	103	P	
118	**Sn**	1	**0.342**	ug/l	0.34	18.0	4500	103	P	
123	**Sb**	1	**0.086**	ug/l	0.09	26.7	4500	103	P	
135	**Ba**	1	**0.020**	ug/l	0.02	80.4	4500	103	P	
200	**Hg**	1	**0.044**	ug/l	0.04	4.7	45	209	P	
205	**Tl**	1	**0.463**	ug/l	0.46	8.2	4500	209	P	
208	**Pb**	1	**0.013**	ug/l	0.01	88.1	4500	209	P	
238	**U**	1	**0.017**	ug/l	0.02	9.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64995	2.13	70500	**92.2**	30	-	125	
45	Sc	1	1654037	3.25	1703000	**97.1**	30	-	125	
74	Ge	1	3803754	1.39	3864000	**98.4**	30	-	125	
103	Rh	1	5363193	0.75	5496000	**97.6**	30	-	125	
165	Ho	1	2419478	0.90	2487000	**97.3**	30	-	125	
175	Lu	1	2065732	1.31	2103000	**98.2**	30	-	125	
209	Bi	1	2499629	0.64	2573000	**97.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\062SMPL.D\062SMPL.D#
Date Acquired: Sep 13 2011 08:50 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-2-B Vial Number: 3401
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.111**	ug/l	1.11	5.7	900	6	P	
23	**Na**	1	**171.200**	ug/l	1,712.00	4.4	450000	6	P	
24	**Mg**	1	**627.100**	ug/l	6,271.00	2.3	450000	6	P	
27	**Al**	1	**9249.000**	ug/l	92,490.00	2.2	450000	6	A	
31	**P**	1	**414.600**	ug/l	4,146.00	4.8	450000	6	P	
39	**K**	1	**261.300**	ug/l	2,613.00	4.2	450000	45	P	
44	**Ca**	1	**231.200**	ug/l	2,312.00	2.1	450000	45	P	
47	**Ti**	1	**1009.000**	ug/l	10,090.00	1.3	4500	45	P	
51	**V**	1	**44.100**	ug/l	441.00	2.9	4500	45	P	
52	**Cr**	1	**13.150**	ug/l	131.50	1.9	4500	45	P	
55	**Mn**	1	**49.520**	ug/l	495.20	2.4	4500	45	P	
57	**Fe**	1	**19740.000**	ug/l	197,400.00	2.6	450000	74	A	
59	**Co**	1	**2.624**	ug/l	26.24	0.9	4500	74	P	
60	**Ni**	1	**5.960**	ug/l	59.60	1.1	4500	74	P	
63	**Cu**	1	**16.970**	ug/l	169.70	0.7	4500	74	P	
66	**Zn**	1	**28.970**	ug/l	289.70	1.3	4500	74	P	
75	**As**	1	**5.265**	ug/l	52.65	1.2	4500	74	P	
78	**Se**	1	**0.647**	ug/l	6.47	23.2	4500	74	P	
88	**Sr**	1	**3.511**	ug/l	35.11	2.3	4500	74	P	
95	**Mo**	1	**0.609**	ug/l	6.09	4.2	4500	103	P	
109	**Ag**	1	**0.203**	ug/l	2.03	2.8	4500	103	P	
111	**Cd**	1	**0.140**	ug/l	1.40	21.6	4500	103	P	
118	**Sn**	1	**1.566**	ug/l	15.66	2.4	4500	103	P	
123	**Sb**	1	**0.254**	ug/l	2.54	3.2	4500	103	P	
135	**Ba**	1	**13.910**	ug/l	139.10	4.5	4500	103	P	
200	**Hg**	1	**0.212**	ug/l	2.12	3.1	45	209	P	
205	**Tl**	1	**0.239**	ug/l	2.39	12.5	4500	209	P	
208	**Pb**	1	**8.856**	ug/l	88.56	2.2	4500	209	P	
238	**U**	1	**0.350**	ug/l	3.50	6.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64824	0.83	70500	**91.9**	30	-	125	
45	Sc	1	1663423	0.91	1703000	**97.7**	30	-	125	
74	Ge	1	3745148	0.33	3864000	**96.9**	30	-	125	
103	Rh	1	5194318	1.84	5496000	**94.5**	30	-	125	
165	Ho	1	2421119	0.53	2487000	**97.4**	30	-	125	
175	Lu	1	2049977	0.79	2103000	**97.5**	30	-	125	
209	Bi	1	2482202	1.20	2573000	**96.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\063SMPL.D\063SMPL.D#
Date Acquired: Sep 13 2011 08:54 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-3-B Vial Number: 3402
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.652**	ug/l	6.52	12.1	900	6	P	
23	**Na**	1	**203.500**	ug/l	2,035.00	1.7	450000	6	P	
24	**Mg**	1	**5634.000**	ug/l	56,340.00	1.1	450000	6	A	
27	**Al**	1	**42830.000**	ug/l	428,300.00	1.6	450000	6	A	
31	**P**	1	**578.300**	ug/l	5,783.00	1.7	450000	6	P	
39	**K**	1	**529.900**	ug/l	5,299.00	2.2	450000	45	P	
44	**Ca**	1	**1234.000**	ug/l	12,340.00	2.2	450000	45	P	
47	**Ti**	1	**2562.000**	ug/l	25,620.00	3.0	4500	45	M	
51	**V**	1	**227.600**	ug/l	2,276.00	1.7	4500	45	A	
52	**Cr**	1	**50.430**	ug/l	504.30	3.3	4500	45	P	
55	**Mn**	1	**375.500**	ug/l	3,755.00	2.2	4500	45	A	
57	**Fe**	1	**80210.000**	ug/l	802,100.00	0.5	450000	74	A	
59	**Co**	1	**11.340**	ug/l	113.40	1.9	4500	74	P	
60	**Ni**	1	**29.880**	ug/l	298.80	0.8	4500	74	P	
63	**Cu**	1	**45.510**	ug/l	455.10	1.3	4500	74	P	
66	**Zn**	1	**75.760**	ug/l	757.60	2.5	4500	74	P	
75	**As**	1	**16.050**	ug/l	160.50	1.0	4500	74	P	
78	**Se**	1	**0.892**	ug/l	8.92	5.8	4500	74	P	
88	**Sr**	1	**9.845**	ug/l	98.45	0.9	4500	74	P	
95	**Mo**	1	**2.652**	ug/l	26.52	1.1	4500	103	P	
109	**Ag**	1	**0.276**	ug/l	2.76	2.2	4500	103	P	
111	**Cd**	1	**0.293**	ug/l	2.93	16.3	4500	103	P	
118	**Sn**	1	**3.854**	ug/l	38.54	0.7	4500	103	P	
123	**Sb**	1	**0.509**	ug/l	5.09	4.8	4500	103	P	
135	**Ba**	1	**100.700**	ug/l	1,007.00	1.4	4500	103	P	
200	**Hg**	1	**0.230**	ug/l	2.30	5.7	45	209	P	
205	**Tl**	1	**0.274**	ug/l	2.74	12.1	4500	209	P	
208	**Pb**	1	**19.750**	ug/l	197.50	1.4	4500	209	P	
238	**U**	1	**0.654**	ug/l	6.54	0.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62332	0.84	70500	**88.4**	30	-	125	
45	Sc	1	1620144	1.52	1703000	**95.1**	30	-	125	
74	Ge	1	3552166	0.32	3864000	**91.9**	30	-	125	
103	Rh	1	4852078	0.06	5496000	**88.3**	30	-	125	
165	Ho	1	2354001	0.79	2487000	**94.7**	30	-	125	
175	Lu	1	1974460	0.30	2103000	**93.9**	30	-	125	
209	Bi	1	2357583	0.81	2573000	**91.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\064SMPL.D\064SMPL.D#
Date Acquired: Sep 13 2011 08:59 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-4-B Vial Number: 3403
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.740**	ug/l	17.40	1.9	900	6	P	
23	**Na**	1	**146.600**	ug/l	1,466.00	2.4	450000	6	P	
24	**Mg**	1	**22820.000**	ug/l	228,200.00	1.0	450000	6	A	
27	**Al**	1	**111800.000**	ug/l	1,118,000.00	2.0	450000	6	A	
31	**P**	1	**1238.000**	ug/l	12,380.00	2.0	450000	6	P	
39	**K**	1	**1313.000**	ug/l	13,130.00	2.2	450000	45	A	
44	**Ca**	1	**3007.000**	ug/l	30,070.00	3.2	450000	45	P	
47	**Ti**	1	**1180.000**	ug/l	11,800.00	3.2	4500	45	P	
51	**V**	1	**150.200**	ug/l	1,502.00	4.6	4500	45	A	
52	**Cr**	1	**117.200**	ug/l	1,172.00	3.4	4500	45	A	
55	**Mn**	1	**753.300**	ug/l	7,533.00	1.9	4500	45	A	
57	**Fe**	1	**93930.000**	ug/l	939,300.00	1.1	450000	74	A	
59	**Co**	1	**39.770**	ug/l	397.70	2.5	4500	74	P	
60	**Ni**	1	**131.600**	ug/l	1,316.00	1.9	4500	74	P	
63	**Cu**	1	**141.600**	ug/l	1,416.00	2.0	4500	74	A	
66	**Zn**	1	**214.300**	ug/l	2,143.00	2.8	4500	74	P	
75	**As**	1	**28.010**	ug/l	280.10	2.1	4500	74	P	
78	**Se**	1	**2.145**	ug/l	21.45	7.7	4500	74	P	
88	**Sr**	1	**13.680**	ug/l	136.80	2.1	4500	74	P	
95	**Mo**	1	**1.942**	ug/l	19.42	3.9	4500	103	P	
109	**Ag**	1	**0.314**	ug/l	3.14	7.0	4500	103	P	
111	**Cd**	1	**0.539**	ug/l	5.39	6.1	4500	103	P	
118	**Sn**	1	**2.357**	ug/l	23.57	2.9	4500	103	P	
123	**Sb**	1	**0.665**	ug/l	6.65	3.2	4500	103	P	
135	**Ba**	1	**141.500**	ug/l	1,415.00	2.2	4500	103	P	
200	**Hg**	1	**0.379**	ug/l	3.79	4.4	45	209	P	
205	**Tl**	1	**0.333**	ug/l	3.33	2.5	4500	209	P	
208	**Pb**	1	**22.220**	ug/l	222.20	1.2	4500	209	P	
238	**U**	1	**0.999**	ug/l	9.99	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61703	1.73	70500	**87.5**	30	-	125	
45	Sc	1	1602738	3.28	1703000	**94.1**	30	-	125	
74	Ge	1	3476572	1.71	3864000	**90.0**	30	-	125	
103	Rh	1	4694382	0.49	5496000	**85.4**	30	-	125	
165	Ho	1	2302588	0.32	2487000	**92.6**	30	-	125	
175	Lu	1	1937891	1.38	2103000	**92.1**	30	-	125	
209	Bi	1	2274677	0.34	2573000	**88.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\065SMPL.D\065SMPL.D#
Date Acquired: Sep 13 2011 09:03 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-5-B Vial Number: 3404
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.232**	ug/l	12.32	3.2	900	6	P	
23	**Na**	1	**259.000**	ug/l	2,590.00	2.5	450000	6	P	
24	**Mg**	1	**47890.000**	ug/l	478,900.00	1.2	450000	6	A	
27	**Al**	1	**60520.000**	ug/l	605,200.00	1.8	450000	6	A	
31	**P**	1	**1275.000**	ug/l	12,750.00	2.0	450000	6	P	
39	**K**	1	**1480.000**	ug/l	14,800.00	0.5	450000	45	A	
44	**Ca**	1	**1887.000**	ug/l	18,870.00	0.8	450000	45	P	
47	**Ti**	1	**801.900**	ug/l	8,019.00	0.9	4500	45	P	
51	**V**	1	**123.300**	ug/l	1,233.00	1.1	4500	45	A	
52	**Cr**	1	**197.900**	ug/l	1,979.00	0.5	4500	45	A	
55	**Mn**	1	**1028.000**	ug/l	10,280.00	0.2	4500	45	A	
57	**Fe**	1	**86980.000**	ug/l	869,800.00	0.2	450000	74	A	
59	**Co**	1	**54.550**	ug/l	545.50	1.3	4500	74	P	
60	**Ni**	1	**607.300**	ug/l	6,073.00	0.3	4500	74	A	
63	**Cu**	1	**530.400**	ug/l	5,304.00	0.3	4500	74	A	
66	**Zn**	1	**172.200**	ug/l	1,722.00	1.5	4500	74	P	
75	**As**	1	**47.340**	ug/l	473.40	0.9	4500	74	P	
78	**Se**	1	**1.351**	ug/l	13.51	10.7	4500	74	P	
88	**Sr**	1	**12.130**	ug/l	121.30	1.2	4500	74	P	
95	**Mo**	1	**1.789**	ug/l	17.89	4.2	4500	103	P	
109	**Ag**	1	**0.402**	ug/l	4.02	5.6	4500	103	P	
111	**Cd**	1	**0.302**	ug/l	3.02	9.5	4500	103	P	
118	**Sn**	1	**1.902**	ug/l	19.02	2.1	4500	103	P	
123	**Sb**	1	**0.654**	ug/l	6.54	4.5	4500	103	P	
135	**Ba**	1	**149.000**	ug/l	1,490.00	1.9	4500	103	P	
200	**Hg**	1	**0.231**	ug/l	2.31	3.1	45	209	P	
205	**Tl**	1	**0.476**	ug/l	4.76	4.0	4500	209	P	
208	**Pb**	1	**18.660**	ug/l	186.60	1.6	4500	209	P	
238	**U**	1	**0.574**	ug/l	5.74	12.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63165	1.77	70500	**89.6**	30	-	125	
45	Sc	1	1611970	1.10	1703000	**94.7**	30	-	125	
74	Ge	1	3443190	0.89	3864000	**89.1**	30	-	125	
103	Rh	1	4704176	0.78	5496000	**85.6**	30	-	125	
165	Ho	1	2304960	0.71	2487000	**92.7**	30	-	125	
175	Lu	1	1914499	0.88	2103000	**91.0**	30	-	125	
209	Bi	1	2248197	0.80	2573000	**87.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\066SMPL.D\066SMPL.D#
Date Acquired: Sep 13 2011 09:07 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-6-A Vial Number: 3405
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.287**	ug/l	2.87	9.7	900	6	P	
23	**Na**	1	**152.100**	ug/l	1,521.00	5.4	450000	6	P	
24	**Mg**	1	**8045.000**	ug/l	80,450.00	1.5	450000	6	A	
27	**Al**	1	**39770.000**	ug/l	397,700.00	1.3	450000	6	A	
31	**P**	1	**669.800**	ug/l	6,698.00	2.1	450000	6	P	
39	**K**	1	**613.500**	ug/l	6,135.00	2.1	450000	45	A	
44	**Ca**	1	**628.900**	ug/l	6,289.00	2.1	450000	45	P	
47	**Ti**	1	**761.500**	ug/l	7,615.00	1.6	4500	45	P	
51	**V**	1	**98.420**	ug/l	984.20	1.9	4500	45	P	
52	**Cr**	1	**43.120**	ug/l	431.20	2.0	4500	45	P	
55	**Mn**	1	**240.800**	ug/l	2,408.00	1.1	4500	45	A	
57	**Fe**	1	**54710.000**	ug/l	547,100.00	0.5	450000	74	A	
59	**Co**	1	**11.540**	ug/l	115.40	1.6	4500	74	P	
60	**Ni**	1	**40.920**	ug/l	409.20	1.8	4500	74	P	
63	**Cu**	1	**58.960**	ug/l	589.60	1.4	4500	74	P	
66	**Zn**	1	**68.190**	ug/l	681.90	1.4	4500	74	P	
75	**As**	1	**23.000**	ug/l	230.00	2.0	4500	74	P	
78	**Se**	1	**1.049**	ug/l	10.49	7.4	4500	74	P	
88	**Sr**	1	**7.743**	ug/l	77.43	0.6	4500	74	P	
95	**Mo**	1	**1.412**	ug/l	14.12	4.0	4500	103	P	
109	**Ag**	1	**0.237**	ug/l	2.37	0.5	4500	103	P	
111	**Cd**	1	**0.259**	ug/l	2.59	12.3	4500	103	P	
118	**Sn**	1	**2.038**	ug/l	20.38	3.1	4500	103	P	
123	**Sb**	1	**0.545**	ug/l	5.45	1.1	4500	103	P	
135	**Ba**	1	**39.750**	ug/l	397.50	1.1	4500	103	P	
200	**Hg**	1	**0.271**	ug/l	2.71	4.3	45	209	P	
205	**Tl**	1	**0.201**	ug/l	2.01	10.4	4500	209	P	
208	**Pb**	1	**17.500**	ug/l	175.00	1.9	4500	209	P	
238	**U**	1	**0.359**	ug/l	3.59	4.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67808	2.07	70500	**96.2**	30	-	125	
45	Sc	1	1635940	1.43	1703000	**96.1**	30	-	125	
74	Ge	1	3551835	1.12	3864000	**91.9**	30	-	125	
103	Rh	1	4864850	0.38	5496000	**88.5**	30	-	125	
165	Ho	1	2342242	1.10	2487000	**94.2**	30	-	125	
175	Lu	1	1969644	0.60	2103000	**93.7**	30	-	125	
209	Bi	1	2361985	1.57	2573000	**91.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\067SMPL.D\067SMPL.D#
Date Acquired: Sep 13 2011 09:12 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-7-A Vial Number: 3406
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.728**	ug/l	17.28	3.7	900	6	P	
23	Na	1	**337.900**	ug/l	3,379.00	3.2	450000	6	A	
24	Mg	1	**20560.000**	ug/l	205,600.00	1.9	450000	6	A	
27	Al	1	**67580.000**	ug/l	675,800.00	2.6	450000	6	A	
31	P	1	**1367.000**	ug/l	13,670.00	1.4	450000	6	P	
39	K	1	**3135.000**	ug/l	31,350.00	1.7	450000	45	A	
44	Ca	1	**1466.000**	ug/l	14,660.00	1.2	450000	45	P	
47	Ti	1	**1237.000**	ug/l	12,370.00	1.9	4500	45	P	
51	V	1	**158.700**	ug/l	1,587.00	1.7	4500	45	A	
52	Cr	1	**152.200**	ug/l	1,522.00	1.0	4500	45	A	
55	Mn	1	**932.800**	ug/l	9,328.00	1.0	4500	45	A	
57	Fe	1	**81920.000**	ug/l	819,200.00	1.5	450000	74	A	
59	Co	1	**61.850**	ug/l	618.50	2.0	4500	74	P	
60	Ni	1	**161.100**	ug/l	1,611.00	2.5	4500	74	P	
63	Cu	1	**799.100**	ug/l	7,991.00	1.3	4500	74	A	
66	Zn	1	**228.700**	ug/l	2,287.00	2.6	4500	74	P	
75	As	1	**217.300**	ug/l	2,173.00	2.5	4500	74	P	
78	Se	1	**3.296**	ug/l	32.96	2.2	4500	74	P	
88	Sr	1	**18.070**	ug/l	180.70	1.5	4500	74	P	
95	Mo	1	**13.030**	ug/l	130.30	0.6	4500	103	P	
109	Ag	1	**0.974**	ug/l	9.74	3.8	4500	103	P	
111	Cd	1	**0.658**	ug/l	6.58	8.1	4500	103	P	
118	Sn	1	**1.660**	ug/l	16.60	4.7	4500	103	P	
123	Sb	1	**2.486**	ug/l	24.86	1.0	4500	103	P	
135	Ba	1	**101.200**	ug/l	1,012.00	0.6	4500	103	P	
200	Hg	1	**0.310**	ug/l	3.10	3.8	45	209	P	
205	Tl	1	**0.535**	ug/l	5.35	4.2	4500	209	P	
208	Pb	1	**84.820**	ug/l	848.20	1.8	4500	209	A	
238	U	1	**2.659**	ug/l	26.59	2.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66627	1.84	70500	**94.5**	30	-	125	
45	Sc	1	1643599	1.95	1703000	**96.5**	30	-	125	
74	Ge	1	3528860	1.66	3864000	**91.3**	30	-	125	
103	Rh	1	4746434	0.30	5496000	**86.4**	30	-	125	
165	Ho	1	2334980	0.62	2487000	**93.9**	30	-	125	
175	Lu	1	1949188	1.92	2103000	**92.7**	30	-	125	
209	Bi	1	2299401	1.64	2573000	**89.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\068SMPL.D\068SMPL.D#
Date Acquired: Sep 13 2011 09:16 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-8-A Vial Number: 3407
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.755**	ug/l	7.55	4.6	900	6	P	
23	**Na**	1	**231.100**	ug/l	2,311.00	1.1	450000	6	P	
24	**Mg**	1	**6764.000**	ug/l	67,640.00	1.1	450000	6	A	
27	**Al**	1	**44300.000**	ug/l	443,000.00	1.1	450000	6	A	
31	**P**	1	**1749.000**	ug/l	17,490.00	1.5	450000	6	P	
39	**K**	1	**1359.000**	ug/l	13,590.00	2.8	450000	45	A	
44	**Ca**	1	**2487.000**	ug/l	24,870.00	2.2	450000	45	P	
47	**Ti**	1	**1211.000**	ug/l	12,110.00	2.6	4500	45	P	
51	**V**	1	**87.730**	ug/l	877.30	2.8	4500	45	P	
52	**Cr**	1	**76.790**	ug/l	767.90	2.9	4500	45	P	
55	**Mn**	1	**3284.000**	ug/l	32,840.00	2.2	4500	45	A	
57	**Fe**	1	**39980.000**	ug/l	399,800.00	0.5	450000	74	A	
59	**Co**	1	**16.650**	ug/l	166.50	1.3	4500	74	P	
60	**Ni**	1	**58.560**	ug/l	585.60	0.5	4500	74	P	
63	**Cu**	1	**166.600**	ug/l	1,666.00	2.7	4500	74	A	
66	**Zn**	1	**141.700**	ug/l	1,417.00	0.8	4500	74	P	
75	**As**	1	**115.000**	ug/l	1,150.00	1.4	4500	74	P	
78	**Se**	1	**1.743**	ug/l	17.43	6.3	4500	74	P	
88	**Sr**	1	**41.060**	ug/l	410.60	1.5	4500	74	P	
95	**Mo**	1	**4.253**	ug/l	42.53	2.9	4500	103	P	
109	**Ag**	1	**0.982**	ug/l	9.82	1.1	4500	103	P	
111	**Cd**	1	**0.845**	ug/l	8.45	6.2	4500	103	P	
118	**Sn**	1	**2.381**	ug/l	23.81	19.3	4500	103	P	
123	**Sb**	1	**2.700**	ug/l	27.00	0.6	4500	103	P	
135	**Ba**	1	**126.100**	ug/l	1,261.00	0.6	4500	103	P	
200	**Hg**	1	**0.394**	ug/l	3.94	3.8	45	209	P	
205	**Tl**	1	**0.402**	ug/l	4.02	4.6	4500	209	P	
208	**Pb**	1	**61.060**	ug/l	610.60	0.9	4500	209	P	
238	**U**	1	**0.929**	ug/l	9.29	1.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69541	0.65	70500	**98.6**	30	-	125	
45	Sc	1	1666764	2.25	1703000	**97.9**	30	-	125	
74	Ge	1	3590107	0.66	3864000	**92.9**	30	-	125	
103	Rh	1	4894380	0.90	5496000	**89.1**	30	-	125	
165	Ho	1	2354138	1.48	2487000	**94.7**	30	-	125	
175	Lu	1	1982751	0.73	2103000	**94.3**	30	-	125	
209	Bi	1	2369109	0.42	2573000	**92.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\069SMPL.D\069SMPL.D#
Date Acquired: Sep 13 2011 09:20 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-9-A Vial Number: 3408
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.154**	ug/l	1.54	16.4	900	6	P	
23	**Na**	1	**210.700**	ug/l	2,107.00	1.4	450000	6	P	
24	**Mg**	1	**759.300**	ug/l	7,593.00	2.8	450000	6	A	
27	**Al**	1	**8455.000**	ug/l	84,550.00	2.1	450000	6	A	
31	**P**	1	**351.700**	ug/l	3,517.00	1.6	450000	6	P	
39	**K**	1	**633.500**	ug/l	6,335.00	2.9	450000	45	A	
44	**Ca**	1	**840.000**	ug/l	8,400.00	2.0	450000	45	P	
47	**Ti**	1	**703.900**	ug/l	7,039.00	2.9	4500	45	P	
51	**V**	1	**48.640**	ug/l	486.40	2.5	4500	45	P	
52	**Cr**	1	**13.460**	ug/l	134.60	2.9	4500	45	P	
55	**Mn**	1	**189.000**	ug/l	1,890.00	1.1	4500	45	A	
57	**Fe**	1	**13940.000**	ug/l	139,400.00	0.7	450000	74	A	
59	**Co**	1	**3.963**	ug/l	39.63	1.1	4500	74	P	
60	**Ni**	1	**8.322**	ug/l	83.22	1.0	4500	74	P	
63	**Cu**	1	**26.870**	ug/l	268.70	0.7	4500	74	P	
66	**Zn**	1	**30.310**	ug/l	303.10	1.2	4500	74	P	
75	**As**	1	**12.440**	ug/l	124.40	1.8	4500	74	P	
78	**Se**	1	**0.662**	ug/l	6.62	10.6	4500	74	P	
88	**Sr**	1	**10.410**	ug/l	104.10	4.4	4500	74	P	
95	**Mo**	1	**1.621**	ug/l	16.21	3.7	4500	103	P	
109	**Ag**	1	**1.133**	ug/l	11.33	1.2	4500	103	P	
111	**Cd**	1	**0.115**	ug/l	1.15	12.8	4500	103	P	
118	**Sn**	1	**1.715**	ug/l	17.15	3.0	4500	103	P	
123	**Sb**	1	**0.517**	ug/l	5.17	4.5	4500	103	P	
135	**Ba**	1	**38.540**	ug/l	385.40	0.3	4500	103	P	
200	**Hg**	1	**0.127**	ug/l	1.27	10.8	45	209	P	
205	**Tl**	1	**0.220**	ug/l	2.20	6.3	4500	209	P	
208	**Pb**	1	**18.650**	ug/l	186.50	2.2	4500	209	P	
238	**U**	1	**0.355**	ug/l	3.55	14.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70463	1.09	70500	**99.9**	30	-	125	
45	Sc	1	1661486	2.82	1703000	**97.6**	30	-	125	
74	Ge	1	3664364	0.59	3864000	**94.8**	30	-	125	
103	Rh	1	5129280	1.15	5496000	**93.3**	30	-	125	
165	Ho	1	2397825	2.28	2487000	**96.4**	30	-	125	
175	Lu	1	2031280	1.50	2103000	**96.6**	30	-	125	
209	Bi	1	2443276	1.72	2573000	**95.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\070SMPL.D\070SMPL.D#
Date Acquired: Sep 13 2011 09:24 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-10-A Vial Number: 3409
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.355**	ug/l	3.55	15.6	900	6	P	
23	**Na**	1	**160.600**	ug/l	1,606.00	2.8	450000	6	P	
24	**Mg**	1	**4670.000**	ug/l	46,700.00	1.6	450000	6	A	
27	**Al**	1	**22180.000**	ug/l	221,800.00	1.7	450000	6	A	
31	**P**	1	**770.700**	ug/l	7,707.00	1.6	450000	6	P	
39	**K**	1	**1143.000**	ug/l	11,430.00	1.1	450000	45	A	
44	**Ca**	1	**1235.000**	ug/l	12,350.00	2.5	450000	45	P	
47	**Ti**	1	**1218.000**	ug/l	12,180.00	2.6	4500	45	P	
51	**V**	1	**162.400**	ug/l	1,624.00	4.3	4500	45	A	
52	**Cr**	1	**52.150**	ug/l	521.50	2.9	4500	45	P	
55	**Mn**	1	**330.500**	ug/l	3,305.00	3.7	4500	45	A	
57	**Fe**	1	**62340.000**	ug/l	623,400.00	1.8	450000	74	A	
59	**Co**	1	**11.590**	ug/l	115.90	1.5	4500	74	P	
60	**Ni**	1	**27.590**	ug/l	275.90	1.0	4500	74	P	
63	**Cu**	1	**143.800**	ug/l	1,438.00	1.9	4500	74	A	
66	**Zn**	1	**50.160**	ug/l	501.60	2.3	4500	74	P	
75	**As**	1	**36.430**	ug/l	364.30	1.2	4500	74	P	
78	**Se**	1	**1.300**	ug/l	13.00	7.9	4500	74	P	
88	**Sr**	1	**12.340**	ug/l	123.40	1.8	4500	74	P	
95	**Mo**	1	**8.584**	ug/l	85.84	3.3	4500	103	P	
109	**Ag**	1	**0.453**	ug/l	4.53	3.0	4500	103	P	
111	**Cd**	1	**0.409**	ug/l	4.09	9.8	4500	103	P	
118	**Sn**	1	**2.536**	ug/l	25.36	8.0	4500	103	P	
123	**Sb**	1	**0.732**	ug/l	7.32	2.3	4500	103	P	
135	**Ba**	1	**129.700**	ug/l	1,297.00	3.1	4500	103	P	
200	**Hg**	1	**0.184**	ug/l	1.84	4.0	45	209	P	
205	**Tl**	1	**0.252**	ug/l	2.52	6.8	4500	209	P	
208	**Pb**	1	**29.700**	ug/l	297.00	1.0	4500	209	P	
238	**U**	1	**0.672**	ug/l	6.72	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69929	1.20	70500	**99.2**	30	-	125	
45	Sc	1	1677016	2.26	1703000	**98.5**	30	-	125	
74	Ge	1	3654362	1.53	3864000	**94.6**	30	-	125	
103	Rh	1	4945984	1.94	5496000	**90.0**	30	-	125	
165	Ho	1	2364256	2.30	2487000	**95.1**	30	-	125	
175	Lu	1	1989063	1.23	2103000	**94.6**	30	-	125	
209	Bi	1	2373073	1.33	2573000	**92.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\071SMPL.D\071SMPL.D#
Date Acquired: Sep 13 2011 09:29 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28404-A-5-C Vial Number: 3410
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.932**	ug/l	19.32	3.5	900	6	P	
23	**Na**	1	**518.300**	ug/l	5,183.00	1.5	450000	6	A	
24	**Mg**	1	**3490.000**	ug/l	34,900.00	1.3	450000	6	A	
27	**Al**	1	**75290.000**	ug/l	752,900.00	2.1	450000	6	A	
31	**P**	1	**759.400**	ug/l	7,594.00	0.4	450000	6	P	
39	**K**	1	**492.400**	ug/l	4,924.00	0.5	450000	45	P	
44	**Ca**	1	**4612.000**	ug/l	46,120.00	0.6	450000	45	P	
47	**Ti**	1	**3617.000**	ug/l	36,170.00	0.8	4500	45	A	
51	**V**	1	**172.200**	ug/l	1,722.00	0.2	4500	45	A	
52	**Cr**	1	**2.487**	ug/l	24.87	2.8	4500	45	P	
55	**Mn**	1	**2616.000**	ug/l	26,160.00	1.5	4500	45	A	
57	**Fe**	1	**100600.000**	ug/l	1,006,000.00	0.7	450000	74	A	
59	**Co**	1	**37.830**	ug/l	378.30	1.0	4500	74	P	
60	**Ni**	1	**2.129**	ug/l	21.29	2.2	4500	74	P	
63	**Cu**	1	**20.510**	ug/l	205.10	1.0	4500	74	P	
66	**Zn**	1	**93.350**	ug/l	933.50	0.6	4500	74	P	
75	**As**	1	**3.204**	ug/l	32.04	3.6	4500	74	P	
78	**Se**	1	**1.985**	ug/l	19.85	4.5	4500	74	P	
88	**Sr**	1	**85.390**	ug/l	853.90	0.8	4500	74	P	
95	**Mo**	1	**1.334**	ug/l	13.34	2.4	4500	103	P	
109	**Ag**	1	**0.078**	ug/l	0.78	6.4	4500	103	P	
111	**Cd**	1	**0.616**	ug/l	6.16	1.4	4500	103	P	
118	**Sn**	1	**2.930**	ug/l	29.30	3.6	4500	103	P	
123	**Sb**	1	**0.092**	ug/l	0.92	7.1	4500	103	P	
135	**Ba**	1	**514.400**	ug/l	5,144.00	2.7	4500	103	P	
200	**Hg**	1	**0.062**	ug/l	0.62	6.2	45	209	P	
205	**Tl**	1	**0.486**	ug/l	4.86	2.6	4500	209	P	
208	**Pb**	1	**25.190**	ug/l	251.90	2.6	4500	209	P	
238	**U**	1	**1.401**	ug/l	14.01	3.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67777	1.38	70500	**96.1**	30	-	125	
45	Sc	1	1686979	0.45	1703000	**99.1**	30	-	125	
74	Ge	1	3507397	0.37	3864000	**90.8**	30	-	125	
103	Rh	1	4733589	1.38	5496000	**86.1**	30	-	125	
165	Ho	1	2325666	1.31	2487000	**93.5**	30	-	125	
175	Lu	1	1937922	0.93	2103000	**92.2**	30	-	125	
209	Bi	1	2284724	1.63	2573000	**88.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\072SMPL.D\072SMPL.D#
Date Acquired: Sep 13 2011 09:33 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**47.690**	ug/l	47.69	2.4	900	6	P	
23	**Na**	1	**4705.000**	ug/l	4,705.00	2.3	450000	6	A	
24	**Mg**	1	**4731.000**	ug/l	4,731.00	2.4	450000	6	A	
27	**Al**	1	**475.400**	ug/l	475.40	3.7	450000	6	P	
31	**P**	1	**4607.000**	ug/l	4,607.00	2.3	450000	6	P	
39	**K**	1	**4937.000**	ug/l	4,937.00	1.5	450000	45	A	
44	**Ca**	1	**4878.000**	ug/l	4,878.00	0.5	450000	45	P	
47	**Ti**	1	**49.610**	ug/l	49.61	0.8	4500	45	P	
51	**V**	1	**48.020**	ug/l	48.02	1.6	4500	45	P	
52	**Cr**	1	**48.470**	ug/l	48.47	1.5	4500	45	P	
55	**Mn**	1	**49.100**	ug/l	49.10	1.6	4500	45	P	
57	**Fe**	1	**5029.000**	ug/l	5,029.00	1.2	450000	74	A	
59	**Co**	1	**48.130**	ug/l	48.13	1.7	4500	74	P	
60	**Ni**	1	**48.840**	ug/l	48.84	1.5	4500	74	P	
63	**Cu**	1	**49.180**	ug/l	49.18	1.7	4500	74	P	
66	**Zn**	1	**49.150**	ug/l	49.15	1.9	4500	74	P	
75	**As**	1	**48.620**	ug/l	48.62	1.4	4500	74	P	
78	**Se**	1	**49.100**	ug/l	49.10	1.7	4500	74	P	
88	**Sr**	1	**48.700**	ug/l	48.70	1.2	4500	74	P	
95	**Mo**	1	**48.020**	ug/l	48.02	1.1	4500	103	P	
109	**Ag**	1	**48.490**	ug/l	48.49	1.7	4500	103	P	
111	**Cd**	1	**48.920**	ug/l	48.92	1.7	4500	103	P	
118	**Sn**	1	**48.850**	ug/l	48.85	1.9	4500	103	P	
123	**Sb**	1	**49.090**	ug/l	49.09	1.6	4500	103	P	
135	**Ba**	1	**49.110**	ug/l	49.11	0.8	4500	103	P	
200	**Hg**	1	**2.421**	ug/l	2.42	2.9	45	209	P	
205	**Tl**	1	**48.060**	ug/l	48.06	0.8	4500	209	P	
208	**Pb**	1	**48.600**	ug/l	48.60	1.4	4500	209	P	
238	**U**	1	**49.410**	ug/l	49.41	1.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70582	2.04	70500	**100.1**	30	-	125	
45	Sc	1	1659214	1.14	1703000	**97.4**	30	-	125	
74	Ge	1	3696775	1.48	3864000	**95.7**	30	-	125	
103	Rh	1	5034648	0.87	5496000	**91.6**	30	-	125	
165	Ho	1	2379027	1.01	2487000	**95.7**	30	-	125	
175	Lu	1	1996905	2.33	2103000	**95.0**	30	-	125	
209	Bi	1	2411863	0.91	2573000	**93.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\073SMPL.D\073SMPL.D#
Date Acquired: Sep 13 2011 09:37 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.007**	ug/l	0.01	57.4	900	6	P	
23	**Na**	1	**-7.677**	ug/l	-7.68	12.0	450000	6	P	
24	**Mg**	1	**0.896**	ug/l	0.90	10.1	450000	6	P	
27	**Al**	1	**2.360**	ug/l	2.36	4.0	450000	6	P	
31	**P**	1	**-0.582**	ug/l	-0.58	231.4	450000	6	P	
39	**K**	1	**3.713**	ug/l	3.71	129.8	450000	45	P	
44	**Ca**	1	**0.559**	ug/l	0.56	49.6	450000	45	P	
47	**Ti**	1	**0.356**	ug/l	0.36	7.5	4500	45	P	
51	**V**	1	**0.032**	ug/l	0.03	107.7	4500	45	P	
52	**Cr**	1	**0.009**	ug/l	0.01	207.8	4500	45	P	
55	**Mn**	1	**0.196**	ug/l	0.20	5.5	4500	45	P	
57	**Fe**	1	**7.385**	ug/l	7.39	5.1	450000	74	P	
59	**Co**	1	**0.007**	ug/l	0.01	11.3	4500	74	P	
60	**Ni**	1	**0.012**	ug/l	0.01	58.0	4500	74	P	
63	**Cu**	1	**-0.005**	ug/l	0.00	249.0	4500	74	P	
66	**Zn**	1	**0.016**	ug/l	0.02	29.8	4500	74	P	
75	**As**	1	**0.015**	ug/l	0.02	93.6	4500	74	P	
78	**Se**	1	**0.098**	ug/l	0.10	106.5	4500	74	P	
88	**Sr**	1	**0.009**	ug/l	0.01	62.4	4500	74	P	
95	**Mo**	1	**0.090**	ug/l	0.09	14.4	4500	103	P	
109	**Ag**	1	**0.009**	ug/l	0.01	25.3	4500	103	P	
111	**Cd**	1	**0.014**	ug/l	0.01	43.4	4500	103	P	
118	**Sn**	1	**0.154**	ug/l	0.15	13.6	4500	103	P	
123	**Sb**	1	**0.051**	ug/l	0.05	16.3	4500	103	P	
135	**Ba**	1	**0.031**	ug/l	0.03	39.8	4500	103	P	
200	**Hg**	1	**0.025**	ug/l	0.02	26.3	45	209	P	
205	**Tl**	1	**0.234**	ug/l	0.23	5.8	4500	209	P	
208	**Pb**	1	**0.011**	ug/l	0.01	129.1	4500	209	P	
238	**U**	1	**0.015**	ug/l	0.01	1.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	71622	0.40	70500	**101.6**	30 - 125	
45	Sc	1	1657771	3.51	1703000	**97.3**	30 - 125	
74	Ge	1	3724875	0.44	3864000	**96.4**	30 - 125	
103	Rh	1	5264846	0.94	5496000	**95.8**	30 - 125	
165	Ho	1	2373550	0.57	2487000	**95.4**	30 - 125	
175	Lu	1	2035058	2.06	2103000	**96.8**	30 - 125	
209	Bi	1	2480733	1.64	2573000	**96.4**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\074SMPL.D\074SMPL.D#
Date Acquired: Sep 13 2011 09:42 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28404-A-6-C Vial Number: 3501
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.680**	ug/l	16.80	7.0	900	6	P	
23	**Na**	1	**513.000**	ug/l	5,130.00	2.1	450000	6	A	
24	**Mg**	1	**3412.000**	ug/l	34,120.00	0.7	450000	6	A	
27	**Al**	1	**47530.000**	ug/l	475,300.00	1.5	450000	6	A	
31	**P**	1	**789.900**	ug/l	7,899.00	0.4	450000	6	P	
39	**K**	1	**301.000**	ug/l	3,010.00	3.6	450000	45	P	
44	**Ca**	1	**6204.000**	ug/l	62,040.00	2.4	450000	45	P	
47	**Ti**	1	**2161.000**	ug/l	21,610.00	2.7	4500	45	P	
51	**V**	1	**218.900**	ug/l	2,189.00	1.9	4500	45	A	
52	**Cr**	1	**3.192**	ug/l	31.92	2.3	4500	45	P	
55	**Mn**	1	**1837.000**	ug/l	18,370.00	1.5	4500	45	A	
57	**Fe**	1	**90600.000**	ug/l	906,000.00	0.5	450000	74	A	
59	**Co**	1	**36.010**	ug/l	360.10	0.7	4500	74	P	
60	**Ni**	1	**2.127**	ug/l	21.27	2.7	4500	74	P	
63	**Cu**	1	**18.670**	ug/l	186.70	1.0	4500	74	P	
66	**Zn**	1	**86.690**	ug/l	866.90	1.1	4500	74	P	
75	**As**	1	**5.409**	ug/l	54.09	1.7	4500	74	P	
78	**Se**	1	**2.243**	ug/l	22.43	9.3	4500	74	P	
88	**Sr**	1	**105.800**	ug/l	1,058.00	0.6	4500	74	P	
95	**Mo**	1	**1.086**	ug/l	10.86	5.9	4500	103	P	
109	**Ag**	1	**0.088**	ug/l	0.88	9.8	4500	103	P	
111	**Cd**	1	**0.450**	ug/l	4.50	9.6	4500	103	P	
118	**Sn**	1	**2.834**	ug/l	28.34	3.7	4500	103	P	
123	**Sb**	1	**0.103**	ug/l	1.03	9.8	4500	103	P	
135	**Ba**	1	**358.800**	ug/l	3,588.00	1.9	4500	103	P	
200	**Hg**	1	**0.081**	ug/l	0.81	1.4	45	209	P	
205	**Tl**	1	**0.395**	ug/l	3.95	5.5	4500	209	P	
208	**Pb**	1	**26.350**	ug/l	263.50	1.2	4500	209	P	
238	**U**	1	**4.458**	ug/l	44.58	1.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68873	1.18	70500	**97.7**	30	-	125	
45	Sc	1	1683543	2.02	1703000	**98.9**	30	-	125	
74	Ge	1	3541438	0.40	3864000	**91.7**	30	-	125	
103	Rh	1	4799568	1.49	5496000	**87.3**	30	-	125	
165	Ho	1	2352630	0.75	2487000	**94.6**	30	-	125	
175	Lu	1	1992089	0.88	2103000	**94.7**	30	-	125	
209	Bi	1	2327894	0.67	2573000	**90.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\075SMPL.D\075SMPL.D#
Date Acquired: Sep 13 2011 09:46 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28404-A-7-C Vial Number: 3502
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.741**	ug/l	17.41	2.4	900	6	P	
23	**Na**	1	**285.600**	ug/l	2,856.00	1.0	450000	6	P	
24	**Mg**	1	**3634.000**	ug/l	36,340.00	1.8	450000	6	A	
27	**Al**	1	**60630.000**	ug/l	606,300.00	1.3	450000	6	A	
31	**P**	1	**1338.000**	ug/l	13,380.00	1.0	450000	6	P	
39	**K**	1	**1007.000**	ug/l	10,070.00	0.8	450000	45	A	
44	**Ca**	1	**5582.000**	ug/l	55,820.00	1.3	450000	45	P	
47	**Ti**	1	**5445.000**	ug/l	54,450.00	1.0	4500	45	A	Fail
51	**V**	1	**225.600**	ug/l	2,256.00	2.0	4500	45	A	
52	**Cr**	1	**2.617**	ug/l	26.17	4.8	4500	45	P	
55	**Mn**	1	**3915.000**	ug/l	39,150.00	1.7	4500	45	A	
57	**Fe**	1	**108400.000**	ug/l	1,084,000.00	0.5	450000	74	A	
59	**Co**	1	**47.380**	ug/l	473.80	0.6	4500	74	P	
60	**Ni**	1	**2.941**	ug/l	29.41	1.5	4500	74	P	
63	**Cu**	1	**21.310**	ug/l	213.10	0.9	4500	74	P	
66	**Zn**	1	**131.000**	ug/l	1,310.00	0.6	4500	74	P	
75	**As**	1	**2.625**	ug/l	26.25	1.4	4500	74	P	
78	**Se**	1	**2.060**	ug/l	20.60	7.2	4500	74	P	
88	**Sr**	1	**91.960**	ug/l	919.60	0.5	4500	74	P	
95	**Mo**	1	**1.220**	ug/l	12.20	3.2	4500	103	P	
109	**Ag**	1	**0.083**	ug/l	0.83	6.4	4500	103	P	
111	**Cd**	1	**0.738**	ug/l	7.38	12.7	4500	103	P	
118	**Sn**	1	**3.340**	ug/l	33.40	1.1	4500	103	P	
123	**Sb**	1	**0.095**	ug/l	0.95	6.0	4500	103	P	
135	**Ba**	1	**438.700**	ug/l	4,387.00	1.2	4500	103	P	
200	**Hg**	1	**0.094**	ug/l	0.94	2.4	45	209	P	
205	**Tl**	1	**0.702**	ug/l	7.02	3.3	4500	209	P	
208	**Pb**	1	**28.850**	ug/l	288.50	1.1	4500	209	P	
238	**U**	1	**1.524**	ug/l	15.24	0.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68965	0.76	70500	**97.8**	30	-	125	
45	Sc	1	1666116	1.37	1703000	**97.8**	30	-	125	
74	Ge	1	3531373	0.38	3864000	**91.4**	30	-	125	
103	Rh	1	4775525	1.01	5496000	**86.9**	30	-	125	
165	Ho	1	2330139	0.96	2487000	**93.7**	30	-	125	
175	Lu	1	1972027	0.66	2103000	**93.8**	30	-	125	
209	Bi	1	2279274	0.18	2573000	**88.6**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\076SMPL.D\076SMPL.D#
Date Acquired: Sep 13 2011 09:50 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28404-A-8-C Vial Number: 3503
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.842**	ug/l	18.42	4.6	900	6	P	
23	**Na**	1	**335.200**	ug/l	3,352.00	1.5	450000	6	A	
24	**Mg**	1	**4453.000**	ug/l	44,530.00	1.5	450000	6	A	
27	**Al**	1	**46900.000**	ug/l	469,000.00	1.4	450000	6	A	
31	**P**	1	**549.400**	ug/l	5,494.00	1.4	450000	6	P	
39	**K**	1	**924.300**	ug/l	9,243.00	5.8	450000	45	A	
44	**Ca**	1	**11110.000**	ug/l	111,100.00	2.2	450000	45	P	
47	**Ti**	1	**994.000**	ug/l	9,940.00	2.0	4500	45	P	
51	**V**	1	**67.510**	ug/l	675.10	2.2	4500	45	P	
52	**Cr**	1	**4.271**	ug/l	42.71	2.5	4500	45	P	
55	**Mn**	1	**2667.000**	ug/l	26,670.00	2.4	4500	45	A	
57	**Fe**	1	**67350.000**	ug/l	673,500.00	0.9	450000	74	A	
59	**Co**	1	**26.350**	ug/l	263.50	1.1	4500	74	P	
60	**Ni**	1	**3.765**	ug/l	37.65	1.5	4500	74	P	
63	**Cu**	1	**12.420**	ug/l	124.20	0.5	4500	74	P	
66	**Zn**	1	**91.730**	ug/l	917.30	1.6	4500	74	P	
75	**As**	1	**7.424**	ug/l	74.24	2.7	4500	74	P	
78	**Se**	1	**2.091**	ug/l	20.91	2.1	4500	74	P	
88	**Sr**	1	**249.900**	ug/l	2,499.00	2.8	4500	74	A	
95	**Mo**	1	**0.542**	ug/l	5.42	10.4	4500	103	P	
109	**Ag**	1	**0.100**	ug/l	1.00	1.9	4500	103	P	
111	**Cd**	1	**0.576**	ug/l	5.76	5.0	4500	103	P	
118	**Sn**	1	**2.714**	ug/l	27.14	3.1	4500	103	P	
123	**Sb**	1	**0.110**	ug/l	1.10	7.1	4500	103	P	
135	**Ba**	1	**329.000**	ug/l	3,290.00	1.6	4500	103	P	
200	**Hg**	1	**0.093**	ug/l	0.93	10.3	45	209	P	
205	**Tl**	1	**0.599**	ug/l	5.99	2.3	4500	209	P	
208	**Pb**	1	**24.460**	ug/l	244.60	1.5	4500	209	P	
238	**U**	1	**3.567**	ug/l	35.67	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70079	0.78	70500	**99.4**	30	-	125	
45	Sc	1	1715031	2.54	1703000	**100.7**	30	-	125	
74	Ge	1	3570934	0.60	3864000	**92.4**	30	-	125	
103	Rh	1	4909362	1.40	5496000	**89.3**	30	-	125	
165	Ho	1	2372312	0.67	2487000	**95.4**	30	-	125	
175	Lu	1	1984816	1.98	2103000	**94.4**	30	-	125	
209	Bi	1	2323306	0.75	2573000	**90.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\077SMPL.D\077SMPL.D#
Date Acquired: Sep 13 2011 09:55 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28404-A-9-C Vial Number: 3504
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.618**	ug/l	16.18	5.0	900	6	P	
23	**Na**	1	**688.300**	ug/l	6,883.00	0.4	450000	6	A	
24	**Mg**	1	**5166.000**	ug/l	51,660.00	2.1	450000	6	A	
27	**Al**	1	**63670.000**	ug/l	636,700.00	2.3	450000	6	A	
31	**P**	1	**427.100**	ug/l	4,271.00	3.7	450000	6	P	
39	**K**	1	**537.300**	ug/l	5,373.00	0.5	450000	45	A	
44	**Ca**	1	**8640.000**	ug/l	86,400.00	1.3	450000	45	P	
47	**Ti**	1	**2959.000**	ug/l	29,590.00	0.9	4500	45	A	
51	**V**	1	**81.540**	ug/l	815.40	1.0	4500	45	P	
52	**Cr**	1	**0.978**	ug/l	9.78	4.1	4500	45	P	
55	**Mn**	1	**2195.000**	ug/l	21,950.00	1.1	4500	45	A	
57	**Fe**	1	**72040.000**	ug/l	720,400.00	0.6	450000	74	A	
59	**Co**	1	**25.200**	ug/l	252.00	0.8	4500	74	P	
60	**Ni**	1	**1.096**	ug/l	10.96	6.4	4500	74	P	
63	**Cu**	1	**11.560**	ug/l	115.60	2.1	4500	74	P	
66	**Zn**	1	**78.440**	ug/l	784.40	1.0	4500	74	P	
75	**As**	1	**1.250**	ug/l	12.50	5.0	4500	74	P	
78	**Se**	1	**1.715**	ug/l	17.15	5.5	4500	74	P	
88	**Sr**	1	**92.590**	ug/l	925.90	0.6	4500	74	P	
95	**Mo**	1	**0.495**	ug/l	4.95	1.6	4500	103	P	
109	**Ag**	1	**0.032**	ug/l	0.32	3.9	4500	103	P	
111	**Cd**	1	**0.491**	ug/l	4.91	4.8	4500	103	P	
118	**Sn**	1	**2.979**	ug/l	29.79	1.9	4500	103	P	
123	**Sb**	1	**0.030**	ug/l	0.30	14.2	4500	103	P	
135	**Ba**	1	**272.200**	ug/l	2,722.00	1.4	4500	103	P	
200	**Hg**	1	**0.029**	ug/l	0.29	12.7	45	209	P	
205	**Tl**	1	**0.480**	ug/l	4.80	3.9	4500	209	P	
208	**Pb**	1	**15.500**	ug/l	155.00	1.9	4500	209	P	
238	**U**	1	**1.141**	ug/l	11.41	1.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71555	0.99	70500	**101.5**	30	-	125	
45	Sc	1	1677646	1.00	1703000	**98.5**	30	-	125	
74	Ge	1	3523114	0.35	3864000	**91.2**	30	-	125	
103	Rh	1	4768134	0.11	5496000	**86.8**	30	-	125	
165	Ho	1	2357034	1.94	2487000	**94.8**	30	-	125	
175	Lu	1	1953188	0.70	2103000	**92.9**	30	-	125	
209	Bi	1	2294702	1.42	2573000	**89.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\078SMPL.D\078SMPL.D#
Date Acquired: Sep 13 2011 09:59 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28404-A-10-C Vial Number: 3505
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.917**	ug/l	19.17	1.3	900	6	P	
23	**Na**	1	**2368.000**	ug/l	23,680.00	0.7	450000	6	A	
24	**Mg**	1	**4195.000**	ug/l	41,950.00	1.1	450000	6	A	
27	**Al**	1	**67170.000**	ug/l	671,700.00	1.5	450000	6	A	
31	**P**	1	**880.800**	ug/l	8,808.00	2.2	450000	6	P	
39	**K**	1	**1145.000**	ug/l	11,450.00	1.9	450000	45	A	
44	**Ca**	1	**17620.000**	ug/l	176,200.00	0.9	450000	45	A	
47	**Ti**	1	**3288.000**	ug/l	32,880.00	0.5	4500	45	A	
51	**V**	1	**137.500**	ug/l	1,375.00	2.6	4500	45	A	
52	**Cr**	1	**2.269**	ug/l	22.69	3.3	4500	45	P	
55	**Mn**	1	**1303.000**	ug/l	13,030.00	1.2	4500	45	A	
57	**Fe**	1	**87250.000**	ug/l	872,500.00	0.9	450000	74	A	
59	**Co**	1	**29.370**	ug/l	293.70	1.7	4500	74	P	
60	**Ni**	1	**2.353**	ug/l	23.53	2.5	4500	74	P	
63	**Cu**	1	**20.110**	ug/l	201.10	2.2	4500	74	P	
66	**Zn**	1	**99.940**	ug/l	999.40	1.8	4500	74	P	
75	**As**	1	**6.149**	ug/l	61.49	2.1	4500	74	P	
78	**Se**	1	**2.033**	ug/l	20.33	7.1	4500	74	P	
88	**Sr**	1	**343.600**	ug/l	3,436.00	1.7	4500	74	A	
95	**Mo**	1	**0.998**	ug/l	9.98	2.4	4500	103	P	
109	**Ag**	1	**0.106**	ug/l	1.06	7.7	4500	103	P	
111	**Cd**	1	**0.953**	ug/l	9.53	10.5	4500	103	P	
118	**Sn**	1	**3.471**	ug/l	34.71	2.7	4500	103	P	
123	**Sb**	1	**0.112**	ug/l	1.12	8.0	4500	103	P	
135	**Ba**	1	**337.600**	ug/l	3,376.00	1.7	4500	103	P	
200	**Hg**	1	**0.092**	ug/l	0.92	6.1	45	209	P	
205	**Tl**	1	**0.531**	ug/l	5.31	2.4	4500	209	P	
208	**Pb**	1	**26.910**	ug/l	269.10	1.9	4500	209	P	
238	**U**	1	**1.793**	ug/l	17.93	2.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71359	0.82	70500	**101.2**	30	-	125	
45	Sc	1	1722719	1.24	1703000	**101.2**	30	-	125	
74	Ge	1	3558942	1.25	3864000	**92.1**	30	-	125	
103	Rh	1	4760917	1.49	5496000	**86.6**	30	-	125	
165	Ho	1	2348004	1.48	2487000	**94.4**	30	-	125	
175	Lu	1	1957768	1.19	2103000	**93.1**	30	-	125	
209	Bi	1	2260222	1.00	2573000	**87.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\079SMPL.D\079SMPL.D#
Date Acquired: Sep 13 2011 10:03 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28404-A-11-C Vial Number: 3506
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.923**	ug/l	19.23	3.7	900	6	P	
23	**Na**	1	**399.400**	ug/l	3,994.00	7.0	450000	6	A	
24	**Mg**	1	**4956.000**	ug/l	49,560.00	1.2	450000	6	A	
27	**Al**	1	**57990.000**	ug/l	579,900.00	1.3	450000	6	A	
31	**P**	1	**573.900**	ug/l	5,739.00	2.1	450000	6	P	
39	**K**	1	**1123.000**	ug/l	11,230.00	3.2	450000	45	A	
44	**Ca**	1	**11540.000**	ug/l	115,400.00	1.0	450000	45	P	
47	**Ti**	1	**1424.000**	ug/l	14,240.00	0.6	4500	45	P	
51	**V**	1	**78.920**	ug/l	789.20	0.7	4500	45	P	
52	**Cr**	1	**4.774**	ug/l	47.74	1.5	4500	45	P	
55	**Mn**	1	**3867.000**	ug/l	38,670.00	1.5	4500	45	A	
57	**Fe**	1	**74720.000**	ug/l	747,200.00	3.1	450000	74	A	
59	**Co**	1	**28.990**	ug/l	289.90	2.7	4500	74	P	
60	**Ni**	1	**4.772**	ug/l	47.72	3.1	4500	74	P	
63	**Cu**	1	**15.030**	ug/l	150.30	3.4	4500	74	P	
66	**Zn**	1	**93.640**	ug/l	936.40	2.1	4500	74	P	
75	**As**	1	**9.155**	ug/l	91.55	4.0	4500	74	P	
78	**Se**	1	**2.212**	ug/l	22.12	0.4	4500	74	P	
88	**Sr**	1	**240.800**	ug/l	2,408.00	4.9	4500	74	A	
95	**Mo**	1	**0.717**	ug/l	7.17	6.5	4500	103	P	
109	**Ag**	1	**0.119**	ug/l	1.19	9.9	4500	103	P	
111	**Cd**	1	**0.702**	ug/l	7.02	6.3	4500	103	P	
118	**Sn**	1	**3.455**	ug/l	34.55	2.2	4500	103	P	
123	**Sb**	1	**0.161**	ug/l	1.61	6.7	4500	103	P	
135	**Ba**	1	**445.100**	ug/l	4,451.00	1.2	4500	103	P	
200	**Hg**	1	**0.103**	ug/l	1.03	4.4	45	209	P	
205	**Tl**	1	**0.709**	ug/l	7.09	1.0	4500	209	P	
208	**Pb**	1	**24.190**	ug/l	241.90	2.0	4500	209	P	
238	**U**	1	**3.346**	ug/l	33.46	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71779	0.91	70500	**101.8**	30	-	125	
45	Sc	1	1660439	0.85	1703000	**97.5**	30	-	125	
74	Ge	1	3565647	1.68	3864000	**92.3**	30	-	125	
103	Rh	1	4715484	1.55	5496000	**85.8**	30	-	125	
165	Ho	1	2339577	1.30	2487000	**94.1**	30	-	125	
175	Lu	1	1951162	3.16	2103000	**92.8**	30	-	125	
209	Bi	1	2265125	1.10	2573000	**88.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\080SMPL.D\080SMPL.D#
Date Acquired: Sep 13 2011 10:08 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**47.220**	ug/l	47.22	1.5	900	6	P	
23	**Na**	1	**4615.000**	ug/l	4,615.00	2.0	450000	6	A	
24	**Mg**	1	**4603.000**	ug/l	4,603.00	1.5	450000	6	A	
27	**Al**	1	**465.700**	ug/l	465.70	0.7	450000	6	P	
31	**P**	1	**4525.000**	ug/l	4,525.00	1.1	450000	6	P	
39	**K**	1	**5063.000**	ug/l	5,063.00	2.9	450000	45	A	
44	**Ca**	1	**4930.000**	ug/l	4,930.00	2.2	450000	45	P	
47	**Ti**	1	**49.550**	ug/l	49.55	2.4	4500	45	P	
51	**V**	1	**47.850**	ug/l	47.85	2.6	4500	45	P	
52	**Cr**	1	**48.120**	ug/l	48.12	2.5	4500	45	P	
55	**Mn**	1	**48.830**	ug/l	48.83	2.3	4500	45	P	
57	**Fe**	1	**5087.000**	ug/l	5,087.00	1.3	450000	74	A	
59	**Co**	1	**48.450**	ug/l	48.45	0.6	4500	74	P	
60	**Ni**	1	**49.320**	ug/l	49.32	0.5	4500	74	P	
63	**Cu**	1	**49.540**	ug/l	49.54	1.3	4500	74	P	
66	**Zn**	1	**48.910**	ug/l	48.91	1.3	4500	74	P	
75	**As**	1	**48.670**	ug/l	48.67	1.5	4500	74	P	
78	**Se**	1	**48.990**	ug/l	48.99	0.8	4500	74	P	
88	**Sr**	1	**48.730**	ug/l	48.73	0.5	4500	74	P	
95	**Mo**	1	**48.080**	ug/l	48.08	1.4	4500	103	P	
109	**Ag**	1	**48.300**	ug/l	48.30	0.6	4500	103	P	
111	**Cd**	1	**48.600**	ug/l	48.60	0.3	4500	103	P	
118	**Sn**	1	**48.580**	ug/l	48.58	1.2	4500	103	P	
123	**Sb**	1	**48.640**	ug/l	48.64	1.2	4500	103	P	
135	**Ba**	1	**48.850**	ug/l	48.85	1.5	4500	103	P	
200	**Hg**	1	**2.419**	ug/l	2.42	2.1	45	209	P	
205	**Tl**	1	**47.750**	ug/l	47.75	1.1	4500	209	P	
208	**Pb**	1	**48.690**	ug/l	48.69	1.7	4500	209	P	
238	**U**	1	**48.750**	ug/l	48.75	2.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	73161	1.12	70500	**103.8**	30	-	125	
45	Sc	1	1658751	2.46	1703000	**97.4**	30	-	125	
74	Ge	1	3667996	0.79	3864000	**94.9**	30	-	125	
103	Rh	1	5032394	1.25	5496000	**91.6**	30	-	125	
165	Ho	1	2359819	0.90	2487000	**94.9**	30	-	125	
175	Lu	1	1974426	0.78	2103000	**93.9**	30	-	125	
209	Bi	1	2382171	1.39	2573000	**92.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\081SMPL.D\081SMPL.D#
Date Acquired: Sep 13 2011 10:12 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.009**	ug/l	0.01	84.9	900	6	P	
23	**Na**	1	**-12.440**	ug/l	-12.44	8.0	450000	6	P	
24	**Mg**	1	**0.601**	ug/l	0.60	16.8	450000	6	P	
27	**Al**	1	**1.492**	ug/l	1.49	3.4	450000	6	P	
31	**P**	1	**-1.809**	ug/l	-1.81	46.8	450000	6	P	
39	**K**	1	**5.766**	ug/l	5.77	56.3	450000	45	P	
44	**Ca**	1	**0.130**	ug/l	0.13	305.7	450000	45	P	
47	**Ti**	1	**0.255**	ug/l	0.26	9.4	4500	45	P	
51	**V**	1	**0.020**	ug/l	0.02	158.7	4500	45	P	
52	**Cr**	1	**-0.003**	ug/l	0.00	183.2	4500	45	P	
55	**Mn**	1	**0.245**	ug/l	0.24	7.2	4500	45	P	
57	**Fe**	1	**5.110**	ug/l	5.11	3.7	450000	74	P	
59	**Co**	1	**0.003**	ug/l	0.00	11.4	4500	74	P	
60	**Ni**	1	**0.006**	ug/l	0.01	235.6	4500	74	P	
63	**Cu**	1	**0.000**	ug/l	0.00	1303.7	4500	74	P	
66	**Zn**	1	**0.017**	ug/l	0.02	144.3	4500	74	P	
75	**As**	1	**0.005**	ug/l	0.01	106.3	4500	74	P	
78	**Se**	1	**0.104**	ug/l	0.10	91.0	4500	74	P	
88	**Sr**	1	**0.004**	ug/l	0.00	111.7	4500	74	P	
95	**Mo**	1	**0.078**	ug/l	0.08	16.7	4500	103	P	
109	**Ag**	1	**0.005**	ug/l	0.01	35.6	4500	103	P	
111	**Cd**	1	**0.018**	ug/l	0.02	36.9	4500	103	P	
118	**Sn**	1	**0.151**	ug/l	0.15	17.1	4500	103	P	
123	**Sb**	1	**0.037**	ug/l	0.04	2.7	4500	103	P	
135	**Ba**	1	**0.019**	ug/l	0.02	86.3	4500	103	P	
200	**Hg**	1	**0.011**	ug/l	0.01	52.2	45	209	P	
205	**Tl**	1	**0.227**	ug/l	0.23	6.4	4500	209	P	
208	**Pb**	1	**0.000**	ug/l	0.00	11183.0	4500	209	P	
238	**U**	1	**0.011**	ug/l	0.01	4.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75068	1.18	70500	**106.5**	30	-	125	
45	Sc	1	1687478	2.09	1703000	**99.1**	30	-	125	
74	Ge	1	3695360	1.51	3864000	**95.6**	30	-	125	
103	Rh	1	5187098	1.06	5496000	**94.4**	30	-	125	
165	Ho	1	2369233	0.77	2487000	**95.3**	30	-	125	
175	Lu	1	2010645	1.38	2103000	**95.6**	30	-	125	
209	Bi	1	2480099	0.86	2573000	**96.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\082SMPL.D\082SMPL.D#
Date Acquired: Sep 13 2011 10:16 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-95094/20-A Vial Number: 4101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.01	776.3	900	6	P	
23	**Na**	1	**-10.930**	ug/l	-109.30	13.4	450000	6	P	
24	**Mg**	1	**0.766**	ug/l	7.66	6.2	450000	6	P	
27	**Al**	1	**2.341**	ug/l	23.41	15.2	450000	6	P	
31	**P**	1	**-2.016**	ug/l	-20.16	72.7	450000	6	P	
39	**K**	1	**6.482**	ug/l	64.82	34.6	450000	45	P	
44	**Ca**	1	**4.113**	ug/l	41.13	6.9	450000	45	P	
47	**Ti**	1	**0.231**	ug/l	2.31	20.2	4500	45	P	
51	**V**	1	**0.036**	ug/l	0.36	66.4	4500	45	P	
52	**Cr**	1	**0.023**	ug/l	0.23	23.4	4500	45	P	
55	**Mn**	1	**0.188**	ug/l	1.88	3.1	4500	45	P	
57	**Fe**	1	**4.160**	ug/l	41.60	5.7	450000	74	P	
59	**Co**	1	**0.002**	ug/l	0.02	32.8	4500	74	P	
60	**Ni**	1	**0.017**	ug/l	0.17	32.5	4500	74	P	
63	**Cu**	1	**0.068**	ug/l	0.68	11.9	4500	74	P	
66	**Zn**	1	**0.130**	ug/l	1.30	17.1	4500	74	P	
75	**As**	1	**0.000**	ug/l	0.00	3169.1	4500	74	P	
78	**Se**	1	**0.096**	ug/l	0.96	61.1	4500	74	P	
88	**Sr**	1	**0.041**	ug/l	0.41	21.4	4500	74	P	
95	**Mo**	1	**0.031**	ug/l	0.31	12.3	4500	103	P	
109	**Ag**	1	**0.001**	ug/l	0.01	147.7	4500	103	P	
111	**Cd**	1	**0.016**	ug/l	0.16	59.8	4500	103	P	
118	**Sn**	1	**0.094**	ug/l	0.94	27.2	4500	103	P	
123	**Sb**	1	**0.012**	ug/l	0.12	63.8	4500	103	P	
135	**Ba**	1	**0.075**	ug/l	0.75	13.3	4500	103	P	
200	**Hg**	1	**0.008**	ug/l	0.08	47.2	45	209	P	
205	**Tl**	1	**0.082**	ug/l	0.82	13.4	4500	209	P	
208	**Pb**	1	**0.007**	ug/l	0.07	93.9	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.02	44.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	73907	1.30	70500	**104.8**	30	-	125	
45	Sc	1	1672950	1.92	1703000	**98.2**	30	-	125	
74	Ge	1	3716700	1.03	3864000	**96.2**	30	-	125	
103	Rh	1	5211532	0.90	5496000	**94.8**	30	-	125	
165	Ho	1	2374014	0.48	2487000	**95.5**	30	-	125	
175	Lu	1	2006725	2.84	2103000	**95.4**	30	-	125	
209	Bi	1	2490922	0.83	2573000	**96.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\083SMPL.D\083SMPL.D#
Date Acquired: Sep 13 2011 10:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-1-K SD Vial Number: 4102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.155**	ug/l	7.74	6.0	900	6	P	
23	**Na**	1	**163.800**	ug/l	8,190.00	3.1	450000	6	P	
24	**Mg**	1	**650.900**	ug/l	32,545.00	3.1	450000	6	A	
27	**Al**	1	**3082.000**	ug/l	154,100.00	1.8	450000	6	A	
31	**P**	1	**162.600**	ug/l	8,130.00	1.5	450000	6	P	
39	**K**	1	**1398.000**	ug/l	69,900.00	2.0	450000	45	A	
44	**Ca**	1	**2806.000**	ug/l	140,300.00	1.1	450000	45	P	
47	**Ti**	1	**22.460**	ug/l	1,123.00	1.7	4500	45	P	
51	**V**	1	**22.980**	ug/l	1,149.00	2.3	4500	45	P	
52	**Cr**	1	**0.335**	ug/l	16.73	7.2	4500	45	P	
55	**Mn**	1	**152.700**	ug/l	7,635.00	1.7	4500	45	A	
57	**Fe**	1	**12690.000**	ug/l	634,500.00	1.1	450000	74	A	
59	**Co**	1	**5.648**	ug/l	282.40	2.3	4500	74	P	
60	**Ni**	1	**1.584**	ug/l	79.20	1.8	4500	74	P	
63	**Cu**	1	**28.950**	ug/l	1,447.50	2.0	4500	74	P	
66	**Zn**	1	**19.500**	ug/l	975.00	0.8	4500	74	P	
75	**As**	1	**86.460**	ug/l	4,323.00	0.7	4500	74	P	
78	**Se**	1	**0.301**	ug/l	15.04	34.3	4500	74	P	
88	**Sr**	1	**33.780**	ug/l	1,689.00	1.6	4500	74	P	
95	**Mo**	1	**0.717**	ug/l	35.84	3.3	4500	103	P	
109	**Ag**	1	**0.046**	ug/l	2.30	11.5	4500	103	P	
111	**Cd**	1	**0.048**	ug/l	2.39	44.0	4500	103	P	
118	**Sn**	1	**0.284**	ug/l	14.21	3.9	4500	103	P	
123	**Sb**	1	**1.571**	ug/l	78.55	2.6	4500	103	P	
135	**Ba**	1	**217.700**	ug/l	10,885.00	1.0	4500	103	P	
200	**Hg**	1	**0.143**	ug/l	7.16	6.8	45	209	P	
205	**Tl**	1	**0.632**	ug/l	31.59	6.2	4500	209	P	
208	**Pb**	1	**3.639**	ug/l	181.95	5.5	4500	209	P	
238	**U**	1	**0.142**	ug/l	7.08	4.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80621	1.93	70500	**114.4**	30	-	125	
45	Sc	1	1757233	1.55	1703000	**103.2**	30	-	125	
74	Ge	1	3800405	0.89	3864000	**98.4**	30	-	125	
103	Rh	1	5121769	0.70	5496000	**93.2**	30	-	125	
165	Ho	1	2403199	0.74	2487000	**96.6**	30	-	125	
175	Lu	1	1992426	1.05	2103000	**94.7**	30	-	125	
209	Bi	1	2347995	3.63	2573000	**91.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\084SMPL.D\084SMPL.D#
Date Acquired: Sep 13 2011 10:25 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-1-K Vial Number: 4103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.786**	ug/l	7.86	0.9	900	6	P	
23	**Na**	1	**891.100**	ug/l	8,911.00	2.0	450000	6	A	
24	**Mg**	1	**3176.000**	ug/l	31,760.00	3.0	450000	6	A	
27	**Al**	1	**15190.000**	ug/l	151,900.00	3.1	450000	6	A	
31	**P**	1	**833.700**	ug/l	8,337.00	1.9	450000	6	P	
39	**K**	1	**6319.000**	ug/l	63,190.00	0.6	450000	45	A	
44	**Ca**	1	**13170.000**	ug/l	131,700.00	1.1	450000	45	A	
47	**Ti**	1	**106.000**	ug/l	1,060.00	1.1	4500	45	P	
51	**V**	1	**110.100**	ug/l	1,101.00	0.7	4500	45	A	
52	**Cr**	1	**1.716**	ug/l	17.16	1.6	4500	45	P	
55	**Mn**	1	**704.800**	ug/l	7,048.00	1.3	4500	45	A	
57	**Fe**	1	**59580.000**	ug/l	595,800.00	1.8	450000	74	A	
59	**Co**	1	**26.980**	ug/l	269.80	1.9	4500	74	P	
60	**Ni**	1	**7.928**	ug/l	79.28	1.3	4500	74	P	
63	**Cu**	1	**138.300**	ug/l	1,383.00	1.5	4500	74	A	
66	**Zn**	1	**94.290**	ug/l	942.90	1.6	4500	74	P	
75	**As**	1	**429.200**	ug/l	4,292.00	1.3	4500	74	P	
78	**Se**	1	**1.030**	ug/l	10.30	6.1	4500	74	P	
88	**Sr**	1	**165.100**	ug/l	1,651.00	1.2	4500	74	A	
95	**Mo**	1	**3.391**	ug/l	33.91	2.0	4500	103	P	
109	**Ag**	1	**0.250**	ug/l	2.50	4.1	4500	103	P	
111	**Cd**	1	**0.231**	ug/l	2.31	10.7	4500	103	P	
118	**Sn**	1	**1.367**	ug/l	13.67	3.8	4500	103	P	
123	**Sb**	1	**7.649**	ug/l	76.49	2.6	4500	103	P	
135	**Ba**	1	**1060.000**	ug/l	10,600.00	1.1	4500	103	A	
200	**Hg**	1	**0.649**	ug/l	6.49	1.4	45	209	P	
205	**Tl**	1	**2.647**	ug/l	26.47	1.8	4500	209	P	
208	**Pb**	1	**17.380**	ug/l	173.80	0.8	4500	209	P	
238	**U**	1	**0.692**	ug/l	6.92	0.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71881	2.17	70500	**102.0**	30	-	125	
45	Sc	1	1703343	0.81	1703000	**100.0**	30	-	125	
74	Ge	1	3646747	1.11	3864000	**94.4**	30	-	125	
103	Rh	1	4980691	1.33	5496000	**90.6**	30	-	125	
165	Ho	1	2356690	0.84	2487000	**94.8**	30	-	125	
175	Lu	1	1953896	1.26	2103000	**92.9**	30	-	125	
209	Bi	1	2325337	0.46	2573000	**90.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\085SMPL.D\085SMPL.D#
Date Acquired: Sep 13 2011 10:29 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-1-L DU Vial Number: 4104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.772**	ug/l	7.72	6.5	900	6	P	
23	Na	1	**922.900**	ug/l	9,229.00	1.6	450000	6	A	
24	Mg	1	**3299.000**	ug/l	32,990.00	2.9	450000	6	A	
27	Al	1	**15730.000**	ug/l	157,300.00	1.6	450000	6	A	
31	P	1	**876.800**	ug/l	8,768.00	1.9	450000	6	P	
39	K	1	**6481.000**	ug/l	64,810.00	1.7	450000	45	A	
44	Ca	1	**13800.000**	ug/l	138,000.00	1.5	450000	45	A	
47	Ti	1	**110.200**	ug/l	1,102.00	2.5	4500	45	P	
51	V	1	**114.100**	ug/l	1,141.00	3.4	4500	45	A	
52	Cr	1	**1.754**	ug/l	17.54	6.2	4500	45	P	
55	Mn	1	**723.200**	ug/l	7,232.00	1.7	4500	45	A	
57	Fe	1	**61430.000**	ug/l	614,300.00	0.9	450000	74	A	
59	Co	1	**27.740**	ug/l	277.40	0.9	4500	74	P	
60	Ni	1	**8.061**	ug/l	80.61	2.8	4500	74	P	
63	Cu	1	**142.000**	ug/l	1,420.00	1.5	4500	74	A	
66	Zn	1	**96.430**	ug/l	964.30	0.5	4500	74	P	
75	As	1	**436.200**	ug/l	4,362.00	0.6	4500	74	P	
78	Se	1	**1.170**	ug/l	11.70	10.4	4500	74	P	
88	Sr	1	**167.000**	ug/l	1,670.00	0.9	4500	74	A	
95	Mo	1	**3.515**	ug/l	35.15	1.5	4500	103	P	
109	Ag	1	**0.251**	ug/l	2.51	3.1	4500	103	P	
111	Cd	1	**0.208**	ug/l	2.08	12.5	4500	103	P	
118	Sn	1	**1.343**	ug/l	13.43	2.2	4500	103	P	
123	Sb	1	**7.853**	ug/l	78.53	2.1	4500	103	P	
135	Ba	1	**1104.000**	ug/l	11,040.00	0.7	4500	103	A	
200	Hg	1	**0.659**	ug/l	6.59	0.5	45	209	P	
205	Tl	1	**2.692**	ug/l	26.92	1.9	4500	209	P	
208	Pb	1	**17.770**	ug/l	177.70	2.1	4500	209	P	
238	U	1	**0.712**	ug/l	7.12	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70806	0.54	70500	**100.4**	30	-	125	
45	Sc	1	1714189	1.78	1703000	**100.7**	30	-	125	
74	Ge	1	3686514	0.15	3864000	**95.4**	30	-	125	
103	Rh	1	4978741	0.30	5496000	**90.6**	30	-	125	
165	Ho	1	2368993	0.45	2487000	**95.3**	30	-	125	
175	Lu	1	1968600	1.24	2103000	**93.6**	30	-	125	
209	Bi	1	2350691	1.73	2573000	**91.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\086SMPL.D\086SMPL.D#
Date Acquired: Sep 13 2011 10:34 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-1-M MS Vial Number: 4105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.164**	ug/l	108.20	2.4	900	6	P	
23	Na	1	**609.400**	ug/l	30,470.00	3.6	450000	6	A	
24	Mg	1	**1220.000**	ug/l	61,000.00	2.8	450000	6	A	
27	Al	1	**5321.000**	ug/l	266,050.00	0.8	450000	6	A	
31	P	1	**568.400**	ug/l	28,420.00	3.0	450000	6	P	
39	K	1	**2142.000**	ug/l	107,100.00	2.8	450000	45	A	
44	Ca	1	**3028.000**	ug/l	151,400.00	0.7	450000	45	P	
47	Ti	1	**81.230**	ug/l	4,061.50	0.8	4500	45	P	
51	V	1	**47.910**	ug/l	2,395.50	1.0	4500	45	P	
52	Cr	1	**8.707**	ug/l	435.35	1.2	4500	45	P	
55	Mn	1	**182.800**	ug/l	9,140.00	4.1	4500	45	A	
57	Fe	1	**13610.000**	ug/l	680,500.00	2.4	450000	74	A	
59	Co	1	**25.610**	ug/l	1,280.50	1.4	4500	74	P	
60	Ni	1	**23.080**	ug/l	1,154.00	0.8	4500	74	P	
63	Cu	1	**40.220**	ug/l	2,011.00	0.8	4500	74	P	
66	Zn	1	**41.840**	ug/l	2,092.00	0.7	4500	74	P	
75	As	1	**189.100**	ug/l	9,455.00	0.5	4500	74	P	
78	Se	1	**81.130**	ug/l	4,056.50	0.7	4500	74	P	
88	Sr	1	**42.610**	ug/l	2,130.50	0.6	4500	74	P	
95	Mo	1	**99.180**	ug/l	4,959.00	0.5	4500	103	P	
109	Ag	1	**12.500**	ug/l	625.00	0.1	4500	103	P	
111	Cd	1	**2.176**	ug/l	108.80	6.9	4500	103	P	
118	Sn	1	**93.850**	ug/l	4,692.50	1.4	4500	103	P	
123	Sb	1	**25.340**	ug/l	1,267.00	0.7	4500	103	P	
135	Ba	1	**330.300**	ug/l	16,515.00	0.5	4500	103	P	
200	Hg	1	**1.168**	ug/l	58.40	1.4	45	209	P	
205	Tl	1	**84.450**	ug/l	4,222.50	1.7	4500	209	A	
208	Pb	1	**25.370**	ug/l	1,268.50	2.8	4500	209	P	
238	U	1	**0.148**	ug/l	7.40	1.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78140	1.34	70500	**110.8**	30	-	125	
45	Sc	1	1743744	1.45	1703000	**102.4**	30	-	125	
74	Ge	1	3878365	0.10	3864000	**100.4**	30	-	125	
103	Rh	1	5206400	0.12	5496000	**94.7**	30	-	125	
165	Ho	1	2358355	1.75	2487000	**94.8**	30	-	125	
175	Lu	1	1982734	3.66	2103000	**94.3**	30	-	125	
209	Bi	1	2387888	2.35	2573000	**92.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\087SMPL.D\087SMPL.D#
Date Acquired: Sep 13 2011 10:38 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-1-N MSD Vial Number: 4106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.244**	ug/l	112.20	3.2	900	6	P	
23	**Na**	1	**666.000**	ug/l	33,300.00	3.7	450000	6	A	
24	**Mg**	1	**1224.000**	ug/l	61,200.00	2.1	450000	6	A	
27	**Al**	1	**6197.000**	ug/l	309,850.00	0.4	450000	6	A	
31	**P**	1	**668.200**	ug/l	33,410.00	0.6	450000	6	P	
39	**K**	1	**2764.000**	ug/l	138,200.00	0.9	450000	45	A	
44	**Ca**	1	**3234.000**	ug/l	161,700.00	2.9	450000	45	P	
47	**Ti**	1	**85.640**	ug/l	4,282.00	2.9	4500	45	P	
51	**V**	1	**50.550**	ug/l	2,527.50	3.2	4500	45	P	
52	**Cr**	1	**9.096**	ug/l	454.80	2.9	4500	45	P	
55	**Mn**	1	**175.900**	ug/l	8,795.00	11.2	4500	45	A	
57	**Fe**	1	**15920.000**	ug/l	796,000.00	1.4	450000	74	A	
59	**Co**	1	**27.210**	ug/l	1,360.50	1.5	4500	74	P	
60	**Ni**	1	**24.380**	ug/l	1,219.00	1.4	4500	74	P	
63	**Cu**	1	**41.900**	ug/l	2,095.00	1.8	4500	74	P	
66	**Zn**	1	**41.950**	ug/l	2,097.50	2.0	4500	74	P	
75	**As**	1	**196.400**	ug/l	9,820.00	1.4	4500	74	P	
78	**Se**	1	**86.060**	ug/l	4,303.00	0.8	4500	74	P	
88	**Sr**	1	**53.650**	ug/l	2,682.50	1.8	4500	74	P	
95	**Mo**	1	**103.100**	ug/l	5,155.00	1.3	4500	103	P	
109	**Ag**	1	**12.950**	ug/l	647.50	1.7	4500	103	P	
111	**Cd**	1	**2.163**	ug/l	108.15	4.1	4500	103	P	
118	**Sn**	1	**98.590**	ug/l	4,929.50	1.6	4500	103	P	
123	**Sb**	1	**27.310**	ug/l	1,365.50	2.1	4500	103	P	
135	**Ba**	1	**352.600**	ug/l	17,630.00	1.1	4500	103	P	
200	**Hg**	1	**1.240**	ug/l	62.00	5.5	45	209	P	
205	**Tl**	1	**89.570**	ug/l	4,478.50	2.7	4500	209	A	
208	**Pb**	1	**28.510**	ug/l	1,425.50	3.2	4500	209	P	
238	**U**	1	**0.178**	ug/l	8.91	3.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75940	0.48	70500	**107.7**	30	-	125	
45	Sc	1	1754151	2.91	1703000	**103.0**	30	-	125	
74	Ge	1	3795063	1.78	3864000	**98.2**	30	-	125	
103	Rh	1	5218005	0.91	5496000	**94.9**	30	-	125	
165	Ho	1	2413457	2.88	2487000	**97.0**	30	-	125	
175	Lu	1	1991038	3.98	2103000	**94.7**	30	-	125	
209	Bi	1	2404026	3.23	2573000	**93.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\088SMPL.D\088SMPL.D#
Date Acquired: Sep 13 2011 10:42 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-1-K PDS Vial Number: 4107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.198**	ug/l	109.90	4.1	900	6	P	
23	**Na**	1	**631.900**	ug/l	31,595.00	6.4	450000	6	A	
24	**Mg**	1	**1229.000**	ug/l	61,450.00	6.0	450000	6	A	
27	**Al**	1	**5525.000**	ug/l	276,250.00	4.4	450000	6	A	
31	**P**	1	**596.600**	ug/l	29,830.00	1.7	450000	6	P	
39	**K**	1	**2131.000**	ug/l	106,550.00	1.7	450000	45	A	
44	**Ca**	1	**3015.000**	ug/l	150,750.00	3.2	450000	45	P	
47	**Ti**	1	**81.880**	ug/l	4,094.00	2.5	4500	45	P	
51	**V**	1	**47.620**	ug/l	2,381.00	3.6	4500	45	P	
52	**Cr**	1	**8.621**	ug/l	431.05	3.2	4500	45	P	
55	**Mn**	1	**182.100**	ug/l	9,105.00	9.0	4500	45	A	
57	**Fe**	1	**14440.000**	ug/l	722,000.00	2.6	450000	74	A	
59	**Co**	1	**27.010**	ug/l	1,350.50	2.4	4500	74	P	
60	**Ni**	1	**24.270**	ug/l	1,213.50	2.4	4500	74	P	
63	**Cu**	1	**41.930**	ug/l	2,096.50	2.4	4500	74	P	
66	**Zn**	1	**43.110**	ug/l	2,155.50	2.2	4500	74	P	
75	**As**	1	**197.600**	ug/l	9,880.00	2.1	4500	74	P	
78	**Se**	1	**85.300**	ug/l	4,265.00	2.6	4500	74	P	
88	**Sr**	1	**44.710**	ug/l	2,235.50	2.7	4500	74	P	
95	**Mo**	1	**101.100**	ug/l	5,055.00	1.2	4500	103	P	
109	**Ag**	1	**12.810**	ug/l	640.50	1.5	4500	103	P	
111	**Cd**	1	**2.217**	ug/l	110.85	1.0	4500	103	P	
118	**Sn**	1	**96.530**	ug/l	4,826.50	2.0	4500	103	P	
123	**Sb**	1	**25.870**	ug/l	1,293.50	1.4	4500	103	P	
135	**Ba**	1	**335.500**	ug/l	16,775.00	1.1	4500	103	P	
200	**Hg**	1	**1.166**	ug/l	58.30	4.5	45	209	P	
205	**Tl**	1	**88.900**	ug/l	4,445.00	3.0	4500	209	A	
208	**Pb**	1	**25.350**	ug/l	1,267.50	3.3	4500	209	P	
238	**U**	1	**0.145**	ug/l	7.27	5.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76208	0.81	70500	**108.1**	30	-	125	
45	Sc	1	1787106	4.16	1703000	**104.9**	30	-	125	
74	Ge	1	3788774	2.00	3864000	**98.1**	30	-	125	
103	Rh	1	5222006	1.54	5496000	**95.0**	30	-	125	
165	Ho	1	2429425	2.28	2487000	**97.7**	30	-	125	
175	Lu	1	1995456	4.95	2103000	**94.9**	30	-	125	
209	Bi	1	2443141	3.28	2573000	**95.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\089SMPL.D\089SMPL.D#
Date Acquired: Sep 13 2011 10:47 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95094/21-A Vial Number: 4108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.914**	ug/l	95.70	2.1	900	6	P	
23	**Na**	1	**400.700**	ug/l	20,035.00	1.7	450000	6	A	
24	**Mg**	1	**406.100**	ug/l	20,305.00	0.4	450000	6	P	
27	**Al**	1	**78.290**	ug/l	3,914.50	1.3	450000	6	P	
31	**P**	1	**368.600**	ug/l	18,430.00	2.0	450000	6	P	
39	**K**	1	**422.900**	ug/l	21,145.00	0.9	450000	45	P	
44	**Ca**	1	**405.500**	ug/l	20,275.00	0.6	450000	45	P	
47	**Ti**	1	**94.960**	ug/l	4,748.00	2.2	4500	45	P	
51	**V**	1	**19.400**	ug/l	970.00	0.6	4500	45	P	
52	**Cr**	1	**7.946**	ug/l	397.30	1.1	4500	45	P	
55	**Mn**	1	**20.050**	ug/l	1,002.50	1.4	4500	45	P	
57	**Fe**	1	**447.400**	ug/l	22,370.00	1.5	450000	74	P	
59	**Co**	1	**19.970**	ug/l	998.50	1.3	4500	74	P	
60	**Ni**	1	**20.200**	ug/l	1,010.00	1.2	4500	74	P	
63	**Cu**	1	**10.300**	ug/l	515.00	1.2	4500	74	P	
66	**Zn**	1	**21.150**	ug/l	1,057.50	2.2	4500	74	P	
75	**As**	1	**80.530**	ug/l	4,026.50	1.2	4500	74	P	
78	**Se**	1	**78.660**	ug/l	3,933.00	1.4	4500	74	P	
88	**Sr**	1	**0.005**	ug/l	0.24	45.1	4500	74	P	
95	**Mo**	1	**96.880**	ug/l	4,844.00	1.3	4500	103	P	
109	**Ag**	1	**11.990**	ug/l	599.50	1.2	4500	103	P	
111	**Cd**	1	**1.860**	ug/l	93.00	7.0	4500	103	P	
118	**Sn**	1	**98.640**	ug/l	4,932.00	1.1	4500	103	P	
123	**Sb**	1	**56.900**	ug/l	2,845.00	0.8	4500	103	P	
135	**Ba**	1	**77.870**	ug/l	3,893.50	1.6	4500	103	P	
200	**Hg**	1	**0.965**	ug/l	48.25	3.9	45	209	P	
205	**Tl**	1	**76.760**	ug/l	3,838.00	2.1	4500	209	A	
208	**Pb**	1	**19.700**	ug/l	985.00	2.0	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.02	46.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68887	0.51	70500	**97.7**	30	-	125	
45	Sc	1	1662469	1.33	1703000	**97.6**	30	-	125	
74	Ge	1	3748407	0.65	3864000	**97.0**	30	-	125	
103	Rh	1	5242230	1.02	5496000	**95.4**	30	-	125	
165	Ho	1	2420682	1.87	2487000	**97.3**	30	-	125	
175	Lu	1	2022754	1.73	2103000	**96.2**	30	-	125	
209	Bi	1	2516505	2.39	2573000	**97.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\090SMPL.D\090SMPL.D#
Date Acquired: Sep 13 2011 10:51 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95094/22-A Vial Number: 4109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.872**	ug/l	93.60	4.5	900	6	P	
23	**Na**	1	**404.500**	ug/l	20,225.00	1.7	450000	6	A	
24	**Mg**	1	**402.600**	ug/l	20,130.00	0.4	450000	6	P	
27	**Al**	1	**78.580**	ug/l	3,929.00	0.5	450000	6	P	
31	**P**	1	**366.200**	ug/l	18,310.00	4.1	450000	6	P	
39	**K**	1	**415.700**	ug/l	20,785.00	4.0	450000	45	P	
44	**Ca**	1	**401.900**	ug/l	20,095.00	2.6	450000	45	P	
47	**Ti**	1	**94.850**	ug/l	4,742.50	1.9	4500	45	P	
51	**V**	1	**19.600**	ug/l	980.00	3.0	4500	45	P	
52	**Cr**	1	**7.942**	ug/l	397.10	3.1	4500	45	P	
55	**Mn**	1	**20.090**	ug/l	1,004.50	3.5	4500	45	P	
57	**Fe**	1	**448.200**	ug/l	22,410.00	0.7	450000	74	P	
59	**Co**	1	**20.110**	ug/l	1,005.50	0.8	4500	74	P	
60	**Ni**	1	**20.600**	ug/l	1,030.00	2.1	4500	74	P	
63	**Cu**	1	**10.480**	ug/l	524.00	1.4	4500	74	P	
66	**Zn**	1	**21.290**	ug/l	1,064.50	2.6	4500	74	P	
75	**As**	1	**81.310**	ug/l	4,065.50	0.8	4500	74	P	
78	**Se**	1	**79.920**	ug/l	3,996.00	0.7	4500	74	P	
88	**Sr**	1	**0.002**	ug/l	0.11	82.1	4500	74	P	
95	**Mo**	1	**96.090**	ug/l	4,804.50	1.4	4500	103	P	
109	**Ag**	1	**12.010**	ug/l	600.50	1.2	4500	103	P	
111	**Cd**	1	**1.994**	ug/l	99.70	3.3	4500	103	P	
118	**Sn**	1	**98.370**	ug/l	4,918.50	1.0	4500	103	P	
123	**Sb**	1	**56.520**	ug/l	2,826.00	1.2	4500	103	P	
135	**Ba**	1	**77.490**	ug/l	3,874.50	1.6	4500	103	P	
200	**Hg**	1	**0.976**	ug/l	48.78	1.7	45	209	P	
205	**Tl**	1	**77.500**	ug/l	3,875.00	3.4	4500	209	A	
208	**Pb**	1	**19.840**	ug/l	992.00	1.7	4500	209	P	
238	**U**	1	**-0.001**	ug/l	-0.03	60.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67656	0.50	70500	**96.0**	30	-	125	
45	Sc	1	1660179	2.41	1703000	**97.5**	30	-	125	
74	Ge	1	3691023	0.89	3864000	**95.5**	30	-	125	
103	Rh	1	5256918	1.43	5496000	**95.6**	30	-	125	
165	Ho	1	2412169	1.06	2487000	**97.0**	30	-	125	
175	Lu	1	2046115	0.81	2103000	**97.3**	30	-	125	
209	Bi	1	2495590	0.46	2573000	**97.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\091SMPL.D\091SMPL.D#
Date Acquired: Sep 13 2011 10:55 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**47.510**	ug/l	47.51	2.5	900	6	P	
23	**Na**	1	**4758.000**	ug/l	4,758.00	2.9	450000	6	A	
24	**Mg**	1	**4774.000**	ug/l	4,774.00	2.3	450000	6	A	
27	**Al**	1	**478.100**	ug/l	478.10	1.9	450000	6	P	
31	**P**	1	**4725.000**	ug/l	4,725.00	2.2	450000	6	P	
39	**K**	1	**5001.000**	ug/l	5,001.00	0.3	450000	45	A	
44	**Ca**	1	**4899.000**	ug/l	4,899.00	0.6	450000	45	P	
47	**Ti**	1	**48.670**	ug/l	48.67	1.0	4500	45	P	
51	**V**	1	**48.270**	ug/l	48.27	0.5	4500	45	P	
52	**Cr**	1	**48.410**	ug/l	48.41	0.2	4500	45	P	
55	**Mn**	1	**48.860**	ug/l	48.86	0.6	4500	45	P	
57	**Fe**	1	**4959.000**	ug/l	4,959.00	1.2	450000	74	A	
59	**Co**	1	**47.660**	ug/l	47.66	0.4	4500	74	P	
60	**Ni**	1	**48.440**	ug/l	48.44	1.1	4500	74	P	
63	**Cu**	1	**48.940**	ug/l	48.94	0.4	4500	74	P	
66	**Zn**	1	**48.460**	ug/l	48.46	0.5	4500	74	P	
75	**As**	1	**48.080**	ug/l	48.08	0.4	4500	74	P	
78	**Se**	1	**48.720**	ug/l	48.72	0.6	4500	74	P	
88	**Sr**	1	**48.600**	ug/l	48.60	0.5	4500	74	P	
95	**Mo**	1	**48.010**	ug/l	48.01	0.5	4500	103	P	
109	**Ag**	1	**48.000**	ug/l	48.00	1.1	4500	103	P	
111	**Cd**	1	**48.330**	ug/l	48.33	0.7	4500	103	P	
118	**Sn**	1	**48.380**	ug/l	48.38	1.7	4500	103	P	
123	**Sb**	1	**48.510**	ug/l	48.51	0.6	4500	103	P	
135	**Ba**	1	**47.990**	ug/l	47.99	1.6	4500	103	P	
200	**Hg**	1	**2.407**	ug/l	2.41	1.6	45	209	P	
205	**Tl**	1	**47.810**	ug/l	47.81	0.7	4500	209	M	
208	**Pb**	1	**48.570**	ug/l	48.57	1.6	4500	209	P	
238	**U**	1	**48.480**	ug/l	48.48	1.8	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68109	1.43	70500	**96.6**	30	-	125	
45	Sc	1	1664125	0.34	1703000	**97.7**	30	-	125	
74	Ge	1	3780713	0.14	3864000	**97.8**	30	-	125	
103	Rh	1	5186442	0.54	5496000	**94.4**	30	-	125	
165	Ho	1	2418504	0.31	2487000	**97.2**	30	-	125	
175	Lu	1	2036315	1.05	2103000	**96.8**	30	-	125	
209	Bi	1	2423650	1.40	2573000	**94.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\092SMPL.D\092SMPL.D#
Date Acquired: Sep 13 2011 11:00 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.00	188.3	900	6	P	
23	**Na**	1	**-2.120**	ug/l	-2.12	41.7	450000	6	P	
24	**Mg**	1	**0.939**	ug/l	0.94	17.1	450000	6	P	
27	**Al**	1	**0.165**	ug/l	0.17	33.4	450000	6	P	
31	**P**	1	**0.559**	ug/l	0.56	253.0	450000	6	P	
39	**K**	1	**3.531**	ug/l	3.53	26.3	450000	45	P	
44	**Ca**	1	**0.691**	ug/l	0.69	36.8	450000	45	P	
47	**Ti**	1	**0.078**	ug/l	0.08	40.3	4500	45	P	
51	**V**	1	**0.023**	ug/l	0.02	16.4	4500	45	P	
52	**Cr**	1	**0.002**	ug/l	0.00	347.7	4500	45	P	
55	**Mn**	1	**0.053**	ug/l	0.05	9.1	4500	45	P	
57	**Fe**	1	**1.941**	ug/l	1.94	4.7	450000	74	P	
59	**Co**	1	**0.014**	ug/l	0.01	4.0	4500	74	P	
60	**Ni**	1	**0.007**	ug/l	0.01	129.5	4500	74	P	
63	**Cu**	1	**0.030**	ug/l	0.03	35.0	4500	74	P	
66	**Zn**	1	**0.003**	ug/l	0.00	545.8	4500	74	P	
75	**As**	1	**0.020**	ug/l	0.02	45.4	4500	74	P	
78	**Se**	1	**0.146**	ug/l	0.15	26.3	4500	74	P	
88	**Sr**	1	**0.006**	ug/l	0.01	54.2	4500	74	P	
95	**Mo**	1	**0.152**	ug/l	0.15	29.7	4500	103	P	
109	**Ag**	1	**0.006**	ug/l	0.01	21.5	4500	103	P	
111	**Cd**	1	**0.021**	ug/l	0.02	27.5	4500	103	P	
118	**Sn**	1	**0.413**	ug/l	0.41	11.5	4500	103	P	
123	**Sb**	1	**0.070**	ug/l	0.07	25.5	4500	103	P	
135	**Ba**	1	**0.030**	ug/l	0.03	31.2	4500	103	P	
200	**Hg**	1	**0.019**	ug/l	0.02	14.5	45	209	P	
205	**Tl**	1	**0.459**	ug/l	0.46	8.3	4500	209	P	
208	**Pb**	1	**0.016**	ug/l	0.02	42.2	4500	209	P	
238	**U**	1	**0.014**	ug/l	0.01	12.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68866	0.94	70500	**97.7**	30	-	125	
45	Sc	1	1717545	0.56	1703000	**100.9**	30	-	125	
74	Ge	1	3839572	1.58	3864000	**99.4**	30	-	125	
103	Rh	1	5354559	1.27	5496000	**97.4**	30	-	125	
165	Ho	1	2439216	1.18	2487000	**98.1**	30	-	125	
175	Lu	1	2064620	1.82	2103000	**98.2**	30	-	125	
209	Bi	1	2508270	2.07	2573000	**97.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\093SMPL.D\093SMPL.D#
Date Acquired: Sep 13 2011 11:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-2-E Vial Number: 4201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.467**	ug/l	14.67	1.4	900	6	P	
23	**Na**	1	**1198.000**	ug/l	11,980.00	1.4	450000	6	A	
24	**Mg**	1	**7391.000**	ug/l	73,910.00	1.8	450000	6	A	
27	**Al**	1	**57590.000**	ug/l	575,900.00	2.7	450000	6	A	
31	**P**	1	**1187.000**	ug/l	11,870.00	2.6	450000	6	P	
39	**K**	1	**4568.000**	ug/l	45,680.00	2.2	450000	45	A	
44	**Ca**	1	**13740.000**	ug/l	137,400.00	2.2	450000	45	A	
47	**Ti**	1	**4177.000**	ug/l	41,770.00	1.6	4500	45	A	
51	**V**	1	**187.400**	ug/l	1,874.00	3.0	4500	45	A	
52	**Cr**	1	**4.361**	ug/l	43.61	1.2	4500	45	P	
55	**Mn**	1	**2418.000**	ug/l	24,180.00	2.2	4500	45	A	
57	**Fe**	1	**69530.000**	ug/l	695,300.00	1.4	450000	74	A	
59	**Co**	1	**39.740**	ug/l	397.40	2.4	4500	74	P	
60	**Ni**	1	**7.878**	ug/l	78.78	2.2	4500	74	P	
63	**Cu**	1	**177.600**	ug/l	1,776.00	0.5	4500	74	A	
66	**Zn**	1	**127.800**	ug/l	1,278.00	1.5	4500	74	P	
75	**As**	1	**21.130**	ug/l	211.30	0.6	4500	74	P	
78	**Se**	1	**2.185**	ug/l	21.85	5.8	4500	74	P	
88	**Sr**	1	**169.800**	ug/l	1,698.00	1.1	4500	74	A	
95	**Mo**	1	**1.490**	ug/l	14.90	3.8	4500	103	P	
109	**Ag**	1	**0.092**	ug/l	0.92	9.7	4500	103	P	
111	**Cd**	1	**0.777**	ug/l	7.77	9.5	4500	103	P	
118	**Sn**	1	**2.716**	ug/l	27.16	0.7	4500	103	P	
123	**Sb**	1	**0.240**	ug/l	2.40	6.4	4500	103	P	
135	**Ba**	1	**566.500**	ug/l	5,665.00	2.3	4500	103	P	
200	**Hg**	1	**0.137**	ug/l	1.37	6.3	45	209	P	
205	**Tl**	1	**0.681**	ug/l	6.81	6.9	4500	209	P	
208	**Pb**	1	**29.280**	ug/l	292.80	2.6	4500	209	P	
238	**U**	1	**3.309**	ug/l	33.09	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66819	1.50	70500	**94.8**	30	-	125	
45	Sc	1	1770957	2.55	1703000	**104.0**	30	-	125	
74	Ge	1	3677635	1.64	3864000	**95.2**	30	-	125	
103	Rh	1	4933561	1.15	5496000	**89.8**	30	-	125	
165	Ho	1	2388604	0.78	2487000	**96.0**	30	-	125	
175	Lu	1	1999581	1.38	2103000	**95.1**	30	-	125	
209	Bi	1	2302716	1.26	2573000	**89.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\094SMPL.D\094SMPL.D#
Date Acquired: Sep 13 2011 11:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-3-G Vial Number: 4202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.845**	ug/l	8.45	3.5	900	6	P	
23	**Na**	1	**1219.000**	ug/l	12,190.00	1.4	450000	6	A	
24	**Mg**	1	**6112.000**	ug/l	61,120.00	0.3	450000	6	A	
27	**Al**	1	**24450.000**	ug/l	244,500.00	1.6	450000	6	A	
31	**P**	1	**980.400**	ug/l	9,804.00	1.2	450000	6	P	
39	**K**	1	**3121.000**	ug/l	31,210.00	1.5	450000	45	A	
44	**Ca**	1	**28760.000**	ug/l	287,600.00	2.9	450000	45	A	
47	**Ti**	1	**329.100**	ug/l	3,291.00	2.0	4500	45	P	
51	**V**	1	**127.400**	ug/l	1,274.00	1.6	4500	45	A	
52	**Cr**	1	**3.386**	ug/l	33.86	5.6	4500	45	P	
55	**Mn**	1	**2002.000**	ug/l	20,020.00	3.2	4500	45	A	
57	**Fe**	1	**57510.000**	ug/l	575,100.00	1.4	450000	74	A	
59	**Co**	1	**25.900**	ug/l	259.00	2.7	4500	74	P	
60	**Ni**	1	**8.006**	ug/l	80.06	2.0	4500	74	P	
63	**Cu**	1	**118.100**	ug/l	1,181.00	3.4	4500	74	M	
66	**Zn**	1	**97.820**	ug/l	978.20	1.8	4500	74	P	
75	**As**	1	**389.400**	ug/l	3,894.00	1.6	4500	74	P	
78	**Se**	1	**1.314**	ug/l	13.14	8.1	4500	74	P	
88	**Sr**	1	**170.700**	ug/l	1,707.00	2.4	4500	74	A	
95	**Mo**	1	**1.668**	ug/l	16.68	4.0	4500	103	P	
109	**Ag**	1	**0.093**	ug/l	0.93	8.5	4500	103	P	
111	**Cd**	1	**0.257**	ug/l	2.57	11.1	4500	103	P	
118	**Sn**	1	**1.794**	ug/l	17.94	5.4	4500	103	P	
123	**Sb**	1	**3.905**	ug/l	39.05	2.1	4500	103	P	
135	**Ba**	1	**516.000**	ug/l	5,160.00	0.2	4500	103	P	
200	**Hg**	1	**0.505**	ug/l	5.05	0.5	45	209	P	
205	**Tl**	1	**1.191**	ug/l	11.91	2.6	4500	209	P	
208	**Pb**	1	**18.700**	ug/l	187.00	1.7	4500	209	P	
238	**U**	1	**1.388**	ug/l	13.88	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67287	0.99	70500	**95.4**	30	-	125	
45	Sc	1	1744467	2.02	1703000	**102.4**	30	-	125	
74	Ge	1	3739284	1.63	3864000	**96.8**	30	-	125	
103	Rh	1	5004050	0.46	5496000	**91.0**	30	-	125	
165	Ho	1	2390953	0.26	2487000	**96.1**	30	-	125	
175	Lu	1	2021193	1.80	2103000	**96.1**	30	-	125	
209	Bi	1	2358774	1.07	2573000	**91.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\095SMPL.D\095SMPL.D#
Date Acquired: Sep 13 2011 11:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-B-4-B Vial Number: 4203
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.815**	ug/l	8.15	6.6	900	6	P	
23	**Na**	1	**1242.000**	ug/l	12,420.00	1.3	450000	6	A	
24	**Mg**	1	**5585.000**	ug/l	55,850.00	1.6	450000	6	A	
27	**Al**	1	**22470.000**	ug/l	224,700.00	0.8	450000	6	A	
31	**P**	1	**987.900**	ug/l	9,879.00	1.4	450000	6	P	
39	**K**	1	**4092.000**	ug/l	40,920.00	1.8	450000	45	A	
44	**Ca**	1	**22820.000**	ug/l	228,200.00	2.7	450000	45	A	
47	**Ti**	1	**328.600**	ug/l	3,286.00	2.5	4500	45	P	
51	**V**	1	**141.500**	ug/l	1,415.00	2.6	4500	45	A	
52	**Cr**	1	**4.755**	ug/l	47.55	1.6	4500	45	P	
55	**Mn**	1	**1083.000**	ug/l	10,830.00	1.9	4500	45	A	
57	**Fe**	1	**57140.000**	ug/l	571,400.00	1.2	450000	74	A	
59	**Co**	1	**27.060**	ug/l	270.60	1.9	4500	74	P	
60	**Ni**	1	**12.610**	ug/l	126.10	1.8	4500	74	P	
63	**Cu**	1	**184.100**	ug/l	1,841.00	1.9	4500	74	A	
66	**Zn**	1	**102.500**	ug/l	1,025.00	2.1	4500	74	P	
75	**As**	1	**456.400**	ug/l	4,564.00	1.5	4500	74	P	
78	**Se**	1	**1.401**	ug/l	14.01	7.8	4500	74	P	
88	**Sr**	1	**126.000**	ug/l	1,260.00	0.4	4500	74	A	
95	**Mo**	1	**2.345**	ug/l	23.45	1.6	4500	103	P	
109	**Ag**	1	**0.145**	ug/l	1.45	1.3	4500	103	P	
111	**Cd**	1	**0.318**	ug/l	3.18	5.0	4500	103	P	
118	**Sn**	1	**1.847**	ug/l	18.47	1.7	4500	103	P	
123	**Sb**	1	**4.366**	ug/l	43.66	2.5	4500	103	P	
135	**Ba**	1	**602.300**	ug/l	6,023.00	1.0	4500	103	P	
200	**Hg**	1	**0.546**	ug/l	5.46	1.7	45	209	P	
205	**Tl**	1	**1.776**	ug/l	17.76	2.7	4500	209	P	
208	**Pb**	1	**18.180**	ug/l	181.80	2.0	4500	209	P	
238	**U**	1	**1.196**	ug/l	11.96	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65588	0.99	70500	**93.0**	30	-	125	
45	Sc	1	1755937	1.39	1703000	**103.1**	30	-	125	
74	Ge	1	3778989	1.10	3864000	**97.8**	30	-	125	
103	Rh	1	5086112	0.59	5496000	**92.5**	30	-	125	
165	Ho	1	2397084	2.06	2487000	**96.4**	30	-	125	
175	Lu	1	2012428	1.10	2103000	**95.7**	30	-	125	
209	Bi	1	2350962	1.24	2573000	**91.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\096SMPL.D\096SMPL.D#
Date Acquired: Sep 13 2011 11:17 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-B-1-A Vial Number: 4204
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.404**	ug/l	4.04	5.9	900	6	P	
23	**Na**	1	**1079.000**	ug/l	10,790.00	1.4	450000	6	A	
24	**Mg**	1	**3724.000**	ug/l	37,240.00	2.8	450000	6	A	
27	**Al**	1	**18570.000**	ug/l	185,700.00	2.3	450000	6	A	
31	**P**	1	**550.600**	ug/l	5,506.00	1.4	450000	6	P	
39	**K**	1	**2376.000**	ug/l	23,760.00	1.9	450000	45	A	
44	**Ca**	1	**10480.000**	ug/l	104,800.00	1.5	450000	45	P	
47	**Ti**	1	**914.600**	ug/l	9,146.00	2.2	4500	45	P	
51	**V**	1	**82.020**	ug/l	820.20	2.1	4500	45	P	
52	**Cr**	1	**3.068**	ug/l	30.68	2.5	4500	45	P	
55	**Mn**	1	**538.600**	ug/l	5,386.00	2.4	4500	45	A	
57	**Fe**	1	**32330.000**	ug/l	323,300.00	1.1	450000	74	A	
59	**Co**	1	**16.370**	ug/l	163.70	1.6	4500	74	P	
60	**Ni**	1	**5.864**	ug/l	58.64	1.8	4500	74	P	
63	**Cu**	1	**81.300**	ug/l	813.00	1.5	4500	74	P	
66	**Zn**	1	**56.700**	ug/l	567.00	1.9	4500	74	P	
75	**As**	1	**83.480**	ug/l	834.80	1.2	4500	74	P	
78	**Se**	1	**0.714**	ug/l	7.14	12.0	4500	74	P	
88	**Sr**	1	**83.220**	ug/l	832.20	1.1	4500	74	P	
95	**Mo**	1	**1.293**	ug/l	12.93	3.3	4500	103	P	
109	**Ag**	1	**0.060**	ug/l	0.60	6.7	4500	103	P	
111	**Cd**	1	**0.175**	ug/l	1.75	5.4	4500	103	P	
118	**Sn**	1	**1.491**	ug/l	14.91	5.9	4500	103	P	
123	**Sb**	1	**2.237**	ug/l	22.37	2.1	4500	103	P	
135	**Ba**	1	**256.500**	ug/l	2,565.00	1.2	4500	103	P	
200	**Hg**	1	**0.174**	ug/l	1.74	4.5	45	209	P	
205	**Tl**	1	**1.041**	ug/l	10.41	4.3	4500	209	P	
208	**Pb**	1	**9.297**	ug/l	92.97	3.1	4500	209	P	
238	**U**	1	**0.704**	ug/l	7.04	3.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66283	1.42	70500	**94.0**	30	-	125	
45	Sc	1	1742950	2.00	1703000	**102.3**	30	-	125	
74	Ge	1	3813821	1.42	3864000	**98.7**	30	-	125	
103	Rh	1	5151073	1.08	5496000	**93.7**	30	-	125	
165	Ho	1	2399125	0.88	2487000	**96.5**	30	-	125	
175	Lu	1	2019461	1.37	2103000	**96.0**	30	-	125	
209	Bi	1	2386041	1.97	2573000	**92.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\097SMPL.D\097SMPL.D#
Date Acquired: Sep 13 2011 11:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-2-C Vial Number: 4205
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.864**	ug/l	8.64	9.9	900	6	P	
23	**Na**	1	**1272.000**	ug/l	12,720.00	1.4	450000	6	A	
24	**Mg**	1	**6737.000**	ug/l	67,370.00	2.7	450000	6	A	
27	**Al**	1	**21010.000**	ug/l	210,100.00	2.0	450000	6	A	
31	**P**	1	**1094.000**	ug/l	10,940.00	2.2	450000	6	P	
39	**K**	1	**4897.000**	ug/l	48,970.00	1.5	450000	45	A	
44	**Ca**	1	**28280.000**	ug/l	282,800.00	2.0	450000	45	A	
47	**Ti**	1	**185.700**	ug/l	1,857.00	3.4	4500	45	P	
51	**V**	1	**115.700**	ug/l	1,157.00	3.8	4500	45	A	
52	**Cr**	1	**5.164**	ug/l	51.64	3.9	4500	45	P	
55	**Mn**	1	**1397.000**	ug/l	13,970.00	2.5	4500	45	A	
57	**Fe**	1	**62980.000**	ug/l	629,800.00	1.2	450000	74	A	
59	**Co**	1	**25.590**	ug/l	255.90	2.1	4500	74	P	
60	**Ni**	1	**10.770**	ug/l	107.70	4.0	4500	74	P	
63	**Cu**	1	**141.500**	ug/l	1,415.00	1.0	4500	74	A	
66	**Zn**	1	**119.000**	ug/l	1,190.00	2.9	4500	74	P	
75	**As**	1	**448.400**	ug/l	4,484.00	2.5	4500	74	P	
78	**Se**	1	**1.236**	ug/l	12.36	4.1	4500	74	P	
88	**Sr**	1	**118.800**	ug/l	1,188.00	2.1	4500	74	A	
95	**Mo**	1	**1.139**	ug/l	11.39	5.0	4500	103	P	
109	**Ag**	1	**0.324**	ug/l	3.24	6.3	4500	103	P	
111	**Cd**	1	**0.229**	ug/l	2.29	11.9	4500	103	P	
118	**Sn**	1	**1.661**	ug/l	16.61	3.5	4500	103	P	
123	**Sb**	1	**4.105**	ug/l	41.05	0.4	4500	103	P	
135	**Ba**	1	**454.900**	ug/l	4,549.00	2.0	4500	103	P	
200	**Hg**	1	**0.470**	ug/l	4.70	2.2	45	209	P	
205	**Tl**	1	**2.271**	ug/l	22.71	0.7	4500	209	P	
208	**Pb**	1	**17.750**	ug/l	177.50	2.7	4500	209	P	
238	**U**	1	**0.765**	ug/l	7.65	2.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65726	2.54	70500	**93.2**	30	-	125	
45	Sc	1	1752825	2.31	1703000	**102.9**	30	-	125	
74	Ge	1	3778027	1.94	3864000	**97.8**	30	-	125	
103	Rh	1	5045589	0.97	5496000	**91.8**	30	-	125	
165	Ho	1	2383534	1.34	2487000	**95.8**	30	-	125	
175	Lu	1	2007777	0.76	2103000	**95.5**	30	-	125	
209	Bi	1	2347251	1.66	2573000	**91.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\098SMPL.D\098SMPL.D#
Date Acquired: Sep 13 2011 11:26 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-B-3-A Vial Number: 4206
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.811**	ug/l	8.11	5.3	900	6	P	
23	Na	1	**1440.000**	ug/l	14,400.00	0.6	450000	6	A	
24	Mg	1	**6936.000**	ug/l	69,360.00	1.7	450000	6	A	
27	Al	1	**22940.000**	ug/l	229,400.00	3.8	450000	6	A	
31	P	1	**1010.000**	ug/l	10,100.00	1.7	450000	6	P	
39	K	1	**4906.000**	ug/l	49,060.00	0.1	450000	45	A	
44	Ca	1	**28410.000**	ug/l	284,100.00	1.4	450000	45	A	
47	Ti	1	**276.400**	ug/l	2,764.00	0.7	4500	45	P	
51	V	1	**116.800**	ug/l	1,168.00	2.4	4500	45	A	
52	Cr	1	**6.690**	ug/l	66.90	1.7	4500	45	P	
55	Mn	1	**1133.000**	ug/l	11,330.00	1.1	4500	45	A	
57	Fe	1	**58350.000**	ug/l	583,500.00	1.0	450000	74	A	
59	Co	1	**24.470**	ug/l	244.70	0.7	4500	74	P	
60	Ni	1	**10.860**	ug/l	108.60	1.5	4500	74	P	
63	Cu	1	**131.700**	ug/l	1,317.00	1.1	4500	74	A	
66	Zn	1	**135.400**	ug/l	1,354.00	0.6	4500	74	P	
75	As	1	**445.600**	ug/l	4,456.00	0.8	4500	74	P	
78	Se	1	**1.399**	ug/l	13.99	8.9	4500	74	P	
88	Sr	1	**115.500**	ug/l	1,155.00	0.8	4500	74	A	
95	Mo	1	**1.362**	ug/l	13.62	6.7	4500	103	P	
109	Ag	1	**0.233**	ug/l	2.33	7.5	4500	103	P	
111	Cd	1	**0.236**	ug/l	2.36	17.3	4500	103	P	
118	Sn	1	**1.757**	ug/l	17.57	2.6	4500	103	P	
123	Sb	1	**3.780**	ug/l	37.80	3.2	4500	103	P	
135	Ba	1	**417.900**	ug/l	4,179.00	1.1	4500	103	P	
200	Hg	1	**0.413**	ug/l	4.13	3.7	45	209	P	
205	Tl	1	**1.153**	ug/l	11.53	3.6	4500	209	P	
208	Pb	1	**19.220**	ug/l	192.20	1.5	4500	209	P	
238	U	1	**0.777**	ug/l	7.77	1.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63915	1.82	70500	**90.7**	30	-	125	
45	Sc	1	1734008	1.18	1703000	**101.8**	30	-	125	
74	Ge	1	3763007	1.01	3864000	**97.4**	30	-	125	
103	Rh	1	5059043	1.02	5496000	**92.0**	30	-	125	
165	Ho	1	2380782	0.98	2487000	**95.7**	30	-	125	
175	Lu	1	2016077	1.49	2103000	**95.9**	30	-	125	
209	Bi	1	2313276	0.74	2573000	**89.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\099SMPL.D\099SMPL.D#
Date Acquired: Sep 13 2011 11:30 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-4-A Vial Number: 4207
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.351**	ug/l	13.51	1.2	900	6	P	
23	**Na**	1	**1062.000**	ug/l	10,620.00	1.8	450000	6	A	
24	**Mg**	1	**7694.000**	ug/l	76,940.00	2.8	450000	6	A	
27	**Al**	1	**62300.000**	ug/l	623,000.00	2.5	450000	6	A	
31	**P**	1	**1226.000**	ug/l	12,260.00	1.0	450000	6	P	
39	**K**	1	**3505.000**	ug/l	35,050.00	3.7	450000	45	A	
44	**Ca**	1	**14650.000**	ug/l	146,500.00	2.6	450000	45	A	
47	**Ti**	1	**4278.000**	ug/l	42,780.00	4.2	4500	45	A	
51	**V**	1	**162.500**	ug/l	1,625.00	2.2	4500	45	A	
52	**Cr**	1	**5.107**	ug/l	51.07	2.5	4500	45	P	
55	**Mn**	1	**3161.000**	ug/l	31,610.00	1.6	4500	45	A	
57	**Fe**	1	**74650.000**	ug/l	746,500.00	2.4	450000	74	A	
59	**Co**	1	**37.230**	ug/l	372.30	1.5	4500	74	P	
60	**Ni**	1	**9.293**	ug/l	92.93	1.7	4500	74	P	
63	**Cu**	1	**591.100**	ug/l	5,911.00	1.1	4500	74	A	
66	**Zn**	1	**267.600**	ug/l	2,676.00	1.2	4500	74	P	
75	**As**	1	**32.220**	ug/l	322.20	1.1	4500	74	P	
78	**Se**	1	**1.730**	ug/l	17.30	2.7	4500	74	P	
88	**Sr**	1	**175.200**	ug/l	1,752.00	1.3	4500	74	A	
95	**Mo**	1	**1.040**	ug/l	10.40	1.0	4500	103	P	
109	**Ag**	1	**0.160**	ug/l	1.60	2.1	4500	103	P	
111	**Cd**	1	**0.804**	ug/l	8.04	5.5	4500	103	P	
118	**Sn**	1	**2.568**	ug/l	25.68	1.5	4500	103	P	
123	**Sb**	1	**0.503**	ug/l	5.03	3.6	4500	103	P	
135	**Ba**	1	**631.500**	ug/l	6,315.00	1.4	4500	103	P	
200	**Hg**	1	**1.859**	ug/l	18.59	3.0	45	209	P	
205	**Tl**	1	**0.617**	ug/l	6.17	1.8	4500	209	P	
208	**Pb**	1	**22.350**	ug/l	223.50	2.0	4500	209	P	
238	**U**	1	**1.854**	ug/l	18.54	2.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64424	1.58	70500	**91.4**	30	-	125	
45	Sc	1	1763274	2.03	1703000	**103.5**	30	-	125	
74	Ge	1	3674841	1.11	3864000	**95.1**	30	-	125	
103	Rh	1	4992739	0.80	5496000	**90.8**	30	-	125	
165	Ho	1	2404090	0.41	2487000	**96.7**	30	-	125	
175	Lu	1	1984004	0.57	2103000	**94.3**	30	-	125	
209	Bi	1	2300793	1.66	2573000	**89.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\100SMPL.D\100SMPL.D#
Date Acquired: Sep 13 2011 11:34 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-1-E Vial Number: 4208
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.662**	ug/l	6.62	6.9	900	6	P	
23	**Na**	1	**967.900**	ug/l	9,679.00	0.7	450000	6	A	
24	**Mg**	1	**3506.000**	ug/l	35,060.00	1.1	450000	6	A	
27	**Al**	1	**18370.000**	ug/l	183,700.00	1.4	450000	6	A	
31	**P**	1	**961.100**	ug/l	9,611.00	1.1	450000	6	P	
39	**K**	1	**6327.000**	ug/l	63,270.00	3.8	450000	45	A	
44	**Ca**	1	**15410.000**	ug/l	154,100.00	2.2	450000	45	A	
47	**Ti**	1	**108.900**	ug/l	1,089.00	3.6	4500	45	P	
51	**V**	1	**115.600**	ug/l	1,156.00	3.2	4500	45	A	
52	**Cr**	1	**4.276**	ug/l	42.76	2.3	4500	45	P	
55	**Mn**	1	**678.000**	ug/l	6,780.00	1.6	4500	45	A	
57	**Fe**	1	**58340.000**	ug/l	583,400.00	1.4	450000	74	A	
59	**Co**	1	**26.460**	ug/l	264.60	2.7	4500	74	P	
60	**Ni**	1	**9.354**	ug/l	93.54	3.0	4500	74	P	
63	**Cu**	1	**135.400**	ug/l	1,354.00	3.0	4500	74	A	
66	**Zn**	1	**99.930**	ug/l	999.30	2.3	4500	74	P	
75	**As**	1	**422.900**	ug/l	4,229.00	2.4	4500	74	P	
78	**Se**	1	**1.066**	ug/l	10.66	7.8	4500	74	P	
88	**Sr**	1	**177.400**	ug/l	1,774.00	2.5	4500	74	A	
95	**Mo**	1	**2.359**	ug/l	23.59	0.8	4500	103	P	
109	**Ag**	1	**0.248**	ug/l	2.48	6.9	4500	103	P	
111	**Cd**	1	**0.257**	ug/l	2.57	10.2	4500	103	P	
118	**Sn**	1	**1.479**	ug/l	14.79	1.7	4500	103	P	
123	**Sb**	1	**7.319**	ug/l	73.19	2.3	4500	103	P	
135	**Ba**	1	**1129.000**	ug/l	11,290.00	0.4	4500	103	A	
200	**Hg**	1	**0.711**	ug/l	7.11	3.2	45	209	P	
205	**Tl**	1	**2.588**	ug/l	25.88	1.9	4500	209	P	
208	**Pb**	1	**23.130**	ug/l	231.30	1.1	4500	209	P	
238	**U**	1	**0.668**	ug/l	6.68	1.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65873	1.26	70500	**93.4**	30	-	125	
45	Sc	1	1716668	2.80	1703000	**100.8**	30	-	125	
74	Ge	1	3794848	2.11	3864000	**98.2**	30	-	125	
103	Rh	1	5120379	0.55	5496000	**93.2**	30	-	125	
165	Ho	1	2435090	2.57	2487000	**97.9**	30	-	125	
175	Lu	1	1994998	0.92	2103000	**94.9**	30	-	125	
209	Bi	1	2328493	1.07	2573000	**90.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\101SMPL.D\101SMPL.D#
Date Acquired: Sep 13 2011 11:38 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-2-E Vial Number: 4209
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.463**	ug/l	14.63	6.2	900	6	P	
23	**Na**	1	**953.800**	ug/l	9,538.00	1.9	450000	6	A	
24	**Mg**	1	**9272.000**	ug/l	92,720.00	1.3	450000	6	A	
27	**Al**	1	**60190.000**	ug/l	601,900.00	1.5	450000	6	A	
31	**P**	1	**1178.000**	ug/l	11,780.00	0.4	450000	6	P	
39	**K**	1	**3682.000**	ug/l	36,820.00	0.9	450000	45	A	
44	**Ca**	1	**21050.000**	ug/l	210,500.00	2.1	450000	45	A	
47	**Ti**	1	**3928.000**	ug/l	39,280.00	1.0	4500	45	A	
51	**V**	1	**157.000**	ug/l	1,570.00	1.0	4500	45	A	
52	**Cr**	1	**5.271**	ug/l	52.71	1.5	4500	45	P	
55	**Mn**	1	**1855.000**	ug/l	18,550.00	0.6	4500	45	A	
57	**Fe**	1	**65060.000**	ug/l	650,600.00	0.7	450000	74	A	
59	**Co**	1	**41.890**	ug/l	418.90	1.1	4500	74	P	
60	**Ni**	1	**7.481**	ug/l	74.81	1.9	4500	74	P	
63	**Cu**	1	**182.500**	ug/l	1,825.00	0.4	4500	74	A	
66	**Zn**	1	**148.000**	ug/l	1,480.00	0.8	4500	74	P	
75	**As**	1	**8.694**	ug/l	86.94	2.0	4500	74	P	
78	**Se**	1	**1.918**	ug/l	19.18	3.6	4500	74	P	
88	**Sr**	1	**200.900**	ug/l	2,009.00	0.6	4500	74	A	
95	**Mo**	1	**0.888**	ug/l	8.88	2.7	4500	103	P	
109	**Ag**	1	**0.125**	ug/l	1.25	5.8	4500	103	P	
111	**Cd**	1	**0.765**	ug/l	7.65	3.3	4500	103	P	
118	**Sn**	1	**2.231**	ug/l	22.31	3.2	4500	103	P	
123	**Sb**	1	**0.097**	ug/l	0.97	26.9	4500	103	P	
135	**Ba**	1	**574.200**	ug/l	5,742.00	1.3	4500	103	P	
200	**Hg**	1	**0.084**	ug/l	0.84	2.9	45	209	P	
205	**Tl**	1	**0.562**	ug/l	5.62	4.0	4500	209	P	
208	**Pb**	1	**26.180**	ug/l	261.80	1.4	4500	209	P	
238	**U**	1	**1.454**	ug/l	14.54	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64452	0.06	70500	**91.4**	30	-	125	
45	Sc	1	1778443	1.69	1703000	**104.4**	30	-	125	
74	Ge	1	3715340	0.33	3864000	**96.2**	30	-	125	
103	Rh	1	4975978	0.94	5496000	**90.5**	30	-	125	
165	Ho	1	2413420	2.17	2487000	**97.0**	30	-	125	
175	Lu	1	1997747	1.71	2103000	**95.0**	30	-	125	
209	Bi	1	2294616	0.53	2573000	**89.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\102SMPL.D\102SMPL.D#
Date Acquired: Sep 13 2011 11:42 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28370-B-3-A Vial Number: 4210
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.928**	ug/l	9.28	3.1	900	6	P	
23	**Na**	1	**1451.000**	ug/l	14,510.00	2.2	450000	6	A	
24	**Mg**	1	**6090.000**	ug/l	60,900.00	1.3	450000	6	A	
27	**Al**	1	**40370.000**	ug/l	403,700.00	1.5	450000	6	A	
31	**P**	1	**1200.000**	ug/l	12,000.00	1.3	450000	6	P	
39	**K**	1	**4269.000**	ug/l	42,690.00	1.6	450000	45	A	
44	**Ca**	1	**25620.000**	ug/l	256,200.00	2.5	450000	45	A	
47	**Ti**	1	**1694.000**	ug/l	16,940.00	2.0	4500	45	P	
51	**V**	1	**141.000**	ug/l	1,410.00	0.4	4500	45	A	
52	**Cr**	1	**5.892**	ug/l	58.92	1.5	4500	45	P	
55	**Mn**	1	**1330.000**	ug/l	13,300.00	2.3	4500	45	A	
57	**Fe**	1	**64000.000**	ug/l	640,000.00	0.5	450000	74	A	
59	**Co**	1	**31.250**	ug/l	312.50	1.7	4500	74	P	
60	**Ni**	1	**9.724**	ug/l	97.24	3.0	4500	74	P	
63	**Cu**	1	**188.900**	ug/l	1,889.00	1.3	4500	74	A	
66	**Zn**	1	**116.000**	ug/l	1,160.00	1.0	4500	74	P	
75	**As**	1	**292.700**	ug/l	2,927.00	1.1	4500	74	P	
78	**Se**	1	**1.494**	ug/l	14.94	11.9	4500	74	P	
88	**Sr**	1	**201.100**	ug/l	2,011.00	1.0	4500	74	A	
95	**Mo**	1	**1.662**	ug/l	16.62	4.5	4500	103	P	
109	**Ag**	1	**0.173**	ug/l	1.73	1.9	4500	103	P	
111	**Cd**	1	**0.473**	ug/l	4.73	8.8	4500	103	P	
118	**Sn**	1	**1.955**	ug/l	19.55	3.2	4500	103	P	
123	**Sb**	1	**4.052**	ug/l	40.52	1.8	4500	103	P	
135	**Ba**	1	**750.500**	ug/l	7,505.00	1.4	4500	103	P	
200	**Hg**	1	**0.471**	ug/l	4.71	0.2	45	209	P	
205	**Tl**	1	**2.103**	ug/l	21.03	1.8	4500	209	P	
208	**Pb**	1	**23.020**	ug/l	230.20	2.3	4500	209	P	
238	**U**	1	**1.615**	ug/l	16.15	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64087	0.63	70500	**90.9**	30	-	125	
45	Sc	1	1774122	2.62	1703000	**104.2**	30	-	125	
74	Ge	1	3777714	1.02	3864000	**97.8**	30	-	125	
103	Rh	1	5020907	1.45	5496000	**91.4**	30	-	125	
165	Ho	1	2374704	2.04	2487000	**95.5**	30	-	125	
175	Lu	1	2019181	2.04	2103000	**96.0**	30	-	125	
209	Bi	1	2309541	1.53	2573000	**89.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\103SMPL.D\103SMPL.D#
Date Acquired: Sep 13 2011 11:47 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.680**	ug/l	48.68	1.8	900	6	P	
23	**Na**	1	**5104.000**	ug/l	5,104.00	1.5	450000	6	A	
24	**Mg**	1	**5073.000**	ug/l	5,073.00	1.8	450000	6	A	
27	**Al**	1	**516.000**	ug/l	516.00	1.2	450000	6	P	
31	**P**	1	**5081.000**	ug/l	5,081.00	1.3	450000	6	P	
39	**K**	1	**4889.000**	ug/l	4,889.00	3.5	450000	45	A	
44	**Ca**	1	**4865.000**	ug/l	4,865.00	1.5	450000	45	P	
47	**Ti**	1	**48.810**	ug/l	48.81	1.4	4500	45	P	
51	**V**	1	**48.390**	ug/l	48.39	2.6	4500	45	P	
52	**Cr**	1	**48.720**	ug/l	48.72	2.3	4500	45	P	
55	**Mn**	1	**48.920**	ug/l	48.92	1.6	4500	45	P	
57	**Fe**	1	**4982.000**	ug/l	4,982.00	1.1	450000	74	A	
59	**Co**	1	**48.090**	ug/l	48.09	0.7	4500	74	P	
60	**Ni**	1	**48.630**	ug/l	48.63	1.6	4500	74	P	
63	**Cu**	1	**49.090**	ug/l	49.09	0.6	4500	74	P	
66	**Zn**	1	**48.010**	ug/l	48.01	0.4	4500	74	P	
75	**As**	1	**48.710**	ug/l	48.71	1.4	4500	74	P	
78	**Se**	1	**48.250**	ug/l	48.25	1.2	4500	74	P	
88	**Sr**	1	**48.440**	ug/l	48.44	1.0	4500	74	P	
95	**Mo**	1	**47.290**	ug/l	47.29	0.3	4500	103	P	
109	**Ag**	1	**47.490**	ug/l	47.49	0.6	4500	103	P	
111	**Cd**	1	**47.530**	ug/l	47.53	0.5	4500	103	P	
118	**Sn**	1	**47.530**	ug/l	47.53	0.7	4500	103	P	
123	**Sb**	1	**47.590**	ug/l	47.59	0.9	4500	103	P	
135	**Ba**	1	**47.830**	ug/l	47.83	0.8	4500	103	P	
200	**Hg**	1	**2.404**	ug/l	2.40	1.6	45	209	P	
205	**Tl**	1	**47.020**	ug/l	47.02	0.8	4500	209	P	
208	**Pb**	1	**48.120**	ug/l	48.12	1.9	4500	209	P	
238	**U**	1	**48.060**	ug/l	48.06	0.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62648	1.61	70500	**88.9**	30	-	125	
45	Sc	1	1673949	2.07	1703000	**98.3**	30	-	125	
74	Ge	1	3781649	0.34	3864000	**97.9**	30	-	125	
103	Rh	1	5216473	0.27	5496000	**94.9**	30	-	125	
165	Ho	1	2372586	1.81	2487000	**95.4**	30	-	125	
175	Lu	1	1968320	1.19	2103000	**93.6**	30	-	125	
209	Bi	1	2355101	1.40	2573000	**91.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\104SMPL.D\104SMPL.D#
Date Acquired: Sep 13 2011 11:51 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.012**	ug/l	0.01	39.0	900	6	P	
23	**Na**	1	**2.088**	ug/l	2.09	65.7	450000	6	P	
24	**Mg**	1	**1.746**	ug/l	1.75	39.1	450000	6	P	
27	**Al**	1	**2.276**	ug/l	2.28	44.9	450000	6	P	
31	**P**	1	**0.877**	ug/l	0.88	342.5	450000	6	P	
39	**K**	1	**4.914**	ug/l	4.91	41.8	450000	45	P	
44	**Ca**	1	**2.908**	ug/l	2.91	33.8	450000	45	P	
47	**Ti**	1	**0.322**	ug/l	0.32	20.2	4500	45	P	
51	**V**	1	**0.014**	ug/l	0.01	89.6	4500	45	P	
52	**Cr**	1	**0.014**	ug/l	0.01	62.9	4500	45	P	
55	**Mn**	1	**0.174**	ug/l	0.17	16.5	4500	45	P	
57	**Fe**	1	**6.656**	ug/l	6.66	26.9	450000	74	P	
59	**Co**	1	**0.014**	ug/l	0.01	54.4	4500	74	P	
60	**Ni**	1	**0.018**	ug/l	0.02	49.4	4500	74	P	
63	**Cu**	1	**0.060**	ug/l	0.06	18.3	4500	74	P	
66	**Zn**	1	**0.032**	ug/l	0.03	31.6	4500	74	P	
75	**As**	1	**0.049**	ug/l	0.05	48.3	4500	74	P	
78	**Se**	1	**0.156**	ug/l	0.16	4.0	4500	74	P	
88	**Sr**	1	**0.015**	ug/l	0.01	96.9	4500	74	P	
95	**Mo**	1	**0.107**	ug/l	0.11	4.1	4500	103	P	
109	**Ag**	1	**0.010**	ug/l	0.01	66.3	4500	103	P	
111	**Cd**	1	**0.022**	ug/l	0.02	44.9	4500	103	P	
118	**Sn**	1	**0.161**	ug/l	0.16	15.4	4500	103	P	
123	**Sb**	1	**0.051**	ug/l	0.05	35.8	4500	103	P	
135	**Ba**	1	**0.068**	ug/l	0.07	39.3	4500	103	P	
200	**Hg**	1	**0.027**	ug/l	0.03	18.4	45	209	P	
205	**Tl**	1	**0.273**	ug/l	0.27	5.8	4500	209	P	
208	**Pb**	1	**0.027**	ug/l	0.03	44.8	4500	209	P	
238	**U**	1	**0.020**	ug/l	0.02	28.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65453	0.32	70500	**92.8**	30	-	125	
45	Sc	1	1678310	1.31	1703000	**98.6**	30	-	125	
74	Ge	1	3795832	2.02	3864000	**98.2**	30	-	125	
103	Rh	1	5347407	1.70	5496000	**97.3**	30	-	125	
165	Ho	1	2408736	1.76	2487000	**96.9**	30	-	125	
175	Lu	1	2004484	2.42	2103000	**95.3**	30	-	125	
209	Bi	1	2441631	0.46	2573000	**94.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\105SMPL.D\105SMPL.D#
Date Acquired: Sep 13 2011 11:55 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-4-E Vial Number: 4301
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.398**	ug/l	13.98	4.0	900	6	P	
23	**Na**	1	**1017.000**	ug/l	10,170.00	0.7	450000	6	A	
24	**Mg**	1	**9447.000**	ug/l	94,470.00	1.9	450000	6	A	
27	**Al**	1	**75410.000**	ug/l	754,100.00	1.9	450000	6	A	
31	**P**	1	**1307.000**	ug/l	13,070.00	2.3	450000	6	P	
39	**K**	1	**2963.000**	ug/l	29,630.00	0.1	450000	45	A	
44	**Ca**	1	**12990.000**	ug/l	129,900.00	2.5	450000	45	A	
47	**Ti**	1	**4826.000**	ug/l	48,260.00	0.7	4500	45	A	Fail
51	**V**	1	**188.900**	ug/l	1,889.00	1.1	4500	45	A	
52	**Cr**	1	**7.782**	ug/l	77.82	1.7	4500	45	P	
55	**Mn**	1	**3094.000**	ug/l	30,940.00	0.4	4500	45	A	
57	**Fe**	1	**84700.000**	ug/l	847,000.00	0.6	450000	74	A	
59	**Co**	1	**41.040**	ug/l	410.40	0.4	4500	74	P	
60	**Ni**	1	**10.900**	ug/l	109.00	1.1	4500	74	P	
63	**Cu**	1	**185.500**	ug/l	1,855.00	0.3	4500	74	A	
66	**Zn**	1	**135.300**	ug/l	1,353.00	1.1	4500	74	P	
75	**As**	1	**17.900**	ug/l	179.00	1.1	4500	74	P	
78	**Se**	1	**1.505**	ug/l	15.05	7.0	4500	74	P	
88	**Sr**	1	**188.700**	ug/l	1,887.00	2.6	4500	74	A	
95	**Mo**	1	**0.640**	ug/l	6.40	2.9	4500	103	P	
109	**Ag**	1	**0.086**	ug/l	0.86	8.9	4500	103	P	
111	**Cd**	1	**0.725**	ug/l	7.25	8.7	4500	103	P	
118	**Sn**	1	**2.570**	ug/l	25.70	2.4	4500	103	P	
123	**Sb**	1	**0.264**	ug/l	2.64	5.4	4500	103	P	
135	**Ba**	1	**643.600**	ug/l	6,436.00	1.3	4500	103	P	
200	**Hg**	1	**0.104**	ug/l	1.04	6.4	45	209	P	
205	**Tl**	1	**0.622**	ug/l	6.22	5.3	4500	209	P	
208	**Pb**	1	**23.060**	ug/l	230.60	1.8	4500	209	P	
238	**U**	1	**1.731**	ug/l	17.31	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61605	2.17	70500	**87.4**	30	-	125	
45	Sc	1	1706971	0.46	1703000	**100.2**	30	-	125	
74	Ge	1	3554056	0.56	3864000	**92.0**	30	-	125	
103	Rh	1	4762410	1.18	5496000	**86.7**	30	-	125	
165	Ho	1	2321750	1.10	2487000	**93.4**	30	-	125	
175	Lu	1	1939128	2.58	2103000	**92.2**	30	-	125	
209	Bi	1	2229221	1.12	2573000	**86.6**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\106SMPL.D\106SMPL.D#
Date Acquired: Sep 14 2011 12:00 am Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-5-E Vial Number: 4302
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.473**	ug/l	14.73	7.8	900	6	P	
23	**Na**	1	**1164.000**	ug/l	11,640.00	2.2	450000	6	A	
24	**Mg**	1	**9435.000**	ug/l	94,350.00	1.4	450000	6	A	
27	**Al**	1	**79990.000**	ug/l	799,900.00	2.2	450000	6	A	
31	**P**	1	**1261.000**	ug/l	12,610.00	2.0	450000	6	P	
39	**K**	1	**3203.000**	ug/l	32,030.00	1.1	450000	45	A	
44	**Ca**	1	**15510.000**	ug/l	155,100.00	1.2	450000	45	A	
47	**Ti**	1	**5881.000**	ug/l	58,810.00	0.5	4500	45	A	Fail
51	**V**	1	**221.200**	ug/l	2,212.00	1.0	4500	45	A	
52	**Cr**	1	**5.662**	ug/l	56.62	3.0	4500	45	P	
55	**Mn**	1	**765.800**	ug/l	7,658.00	0.7	4500	45	A	
57	**Fe**	1	**83230.000**	ug/l	832,300.00	1.1	450000	74	A	
59	**Co**	1	**31.010**	ug/l	310.10	0.9	4500	74	P	
60	**Ni**	1	**11.430**	ug/l	114.30	0.8	4500	74	P	
63	**Cu**	1	**192.600**	ug/l	1,926.00	1.3	4500	74	A	
66	**Zn**	1	**134.100**	ug/l	1,341.00	1.0	4500	74	P	
75	**As**	1	**12.570**	ug/l	125.70	1.1	4500	74	P	
78	**Se**	1	**1.587**	ug/l	15.87	10.9	4500	74	P	
88	**Sr**	1	**177.300**	ug/l	1,773.00	1.3	4500	74	A	
95	**Mo**	1	**0.329**	ug/l	3.29	7.7	4500	103	P	
109	**Ag**	1	**0.080**	ug/l	0.80	0.5	4500	103	P	
111	**Cd**	1	**0.956**	ug/l	9.56	7.2	4500	103	P	
118	**Sn**	1	**2.910**	ug/l	29.10	0.7	4500	103	P	
123	**Sb**	1	**0.199**	ug/l	1.99	5.5	4500	103	P	
135	**Ba**	1	**456.500**	ug/l	4,565.00	1.5	4500	103	P	
200	**Hg**	1	**0.118**	ug/l	1.18	1.7	45	209	P	
205	**Tl**	1	**0.410**	ug/l	4.10	4.5	4500	209	P	
208	**Pb**	1	**23.320**	ug/l	233.20	1.1	4500	209	P	
238	**U**	1	**1.557**	ug/l	15.57	2.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61061	0.92	70500	**86.6**	30	-	125	
45	Sc	1	1700864	2.00	1703000	**99.9**	30	-	125	
74	Ge	1	3530628	1.34	3864000	**91.4**	30	-	125	
103	Rh	1	4765402	1.09	5496000	**86.7**	30	-	125	
165	Ho	1	2312336	0.72	2487000	**93.0**	30	-	125	
175	Lu	1	1939111	0.89	2103000	**92.2**	30	-	125	
209	Bi	1	2230454	0.78	2573000	**86.7**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\107SMPL.D\107SMPL.D#
Date Acquired: Sep 14 2011 12:04 am Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-6-D Vial Number: 4303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.752**	ug/l	7.52	2.6	900	6	P	
23	**Na**	1	**1040.000**	ug/l	10,400.00	1.9	450000	6	A	
24	**Mg**	1	**5181.000**	ug/l	51,810.00	2.2	450000	6	A	
27	**Al**	1	**29130.000**	ug/l	291,300.00	2.7	450000	6	A	
31	**P**	1	**869.400**	ug/l	8,694.00	0.4	450000	6	P	
39	**K**	1	**3427.000**	ug/l	34,270.00	3.5	450000	45	A	
44	**Ca**	1	**17110.000**	ug/l	171,100.00	2.8	450000	45	A	
47	**Ti**	1	**1374.000**	ug/l	13,740.00	2.6	4500	45	P	
51	**V**	1	**195.600**	ug/l	1,956.00	2.4	4500	45	A	
52	**Cr**	1	**17.070**	ug/l	170.70	2.1	4500	45	P	
55	**Mn**	1	**1032.000**	ug/l	10,320.00	2.2	4500	45	A	
57	**Fe**	1	**54520.000**	ug/l	545,200.00	1.8	450000	74	A	
59	**Co**	1	**28.660**	ug/l	286.60	1.3	4500	74	P	
60	**Ni**	1	**8.689**	ug/l	86.89	1.5	4500	74	P	
63	**Cu**	1	**179.000**	ug/l	1,790.00	0.3	4500	74	A	
66	**Zn**	1	**128.600**	ug/l	1,286.00	0.3	4500	74	P	
75	**As**	1	**183.600**	ug/l	1,836.00	1.4	4500	74	P	
78	**Se**	1	**2.030**	ug/l	20.30	10.8	4500	74	P	
88	**Sr**	1	**145.200**	ug/l	1,452.00	0.9	4500	74	A	
95	**Mo**	1	**3.463**	ug/l	34.63	2.2	4500	103	P	
109	**Ag**	1	**0.103**	ug/l	1.03	8.2	4500	103	P	
111	**Cd**	1	**0.435**	ug/l	4.35	7.8	4500	103	P	
118	**Sn**	1	**1.715**	ug/l	17.15	1.0	4500	103	P	
123	**Sb**	1	**3.328**	ug/l	33.28	1.5	4500	103	P	
135	**Ba**	1	**603.900**	ug/l	6,039.00	0.6	4500	103	P	
200	**Hg**	1	**0.406**	ug/l	4.06	4.4	45	209	P	
205	**Tl**	1	**1.565**	ug/l	15.65	3.0	4500	209	P	
208	**Pb**	1	**17.520**	ug/l	175.20	1.5	4500	209	P	
238	**U**	1	**1.930**	ug/l	19.30	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63696	1.64	70500	**90.3**	30	-	125	
45	Sc	1	1672126	3.00	1703000	**98.2**	30	-	125	
74	Ge	1	3609510	1.49	3864000	**93.4**	30	-	125	
103	Rh	1	4935666	0.79	5496000	**89.8**	30	-	125	
165	Ho	1	2336995	1.80	2487000	**94.0**	30	-	125	
175	Lu	1	1962685	0.69	2103000	**93.3**	30	-	125	
209	Bi	1	2301878	1.47	2573000	**89.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\108SMPL.D\108SMPL.D#
Date Acquired: Sep 14 2011 12:08 am Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-7-D Vial Number: 4304
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.601**	ug/l	6.01	4.4	900	6	P	
23	**Na**	1	**958.600**	ug/l	9,586.00	2.1	450000	6	A	
24	**Mg**	1	**6263.000**	ug/l	62,630.00	2.7	450000	6	A	
27	**Al**	1	**33240.000**	ug/l	332,400.00	1.4	450000	6	A	
31	**P**	1	**770.600**	ug/l	7,706.00	0.8	450000	6	P	
39	**K**	1	**2560.000**	ug/l	25,600.00	2.2	450000	45	A	
44	**Ca**	1	**8862.000**	ug/l	88,620.00	1.8	450000	45	P	
47	**Ti**	1	**2652.000**	ug/l	26,520.00	1.9	4500	45	A	
51	**V**	1	**373.800**	ug/l	3,738.00	1.8	4500	45	A	
52	**Cr**	1	**4.677**	ug/l	46.77	2.0	4500	45	P	
55	**Mn**	1	**660.200**	ug/l	6,602.00	2.2	4500	45	A	
57	**Fe**	1	**43450.000**	ug/l	434,500.00	0.5	450000	74	A	
59	**Co**	1	**22.680**	ug/l	226.80	0.7	4500	74	P	
60	**Ni**	1	**7.420**	ug/l	74.20	1.4	4500	74	P	
63	**Cu**	1	**98.810**	ug/l	988.10	0.9	4500	74	P	
66	**Zn**	1	**75.450**	ug/l	754.50	0.6	4500	74	P	
75	**As**	1	**23.080**	ug/l	230.80	1.3	4500	74	P	
78	**Se**	1	**3.669**	ug/l	36.69	1.2	4500	74	P	
88	**Sr**	1	**101.600**	ug/l	1,016.00	1.0	4500	74	P	
95	**Mo**	1	**4.437**	ug/l	44.37	1.7	4500	103	P	
109	**Ag**	1	**0.044**	ug/l	0.44	16.0	4500	103	P	
111	**Cd**	1	**0.440**	ug/l	4.40	15.2	4500	103	P	
118	**Sn**	1	**1.659**	ug/l	16.59	2.6	4500	103	P	
123	**Sb**	1	**0.167**	ug/l	1.67	10.7	4500	103	P	
135	**Ba**	1	**184.300**	ug/l	1,843.00	0.4	4500	103	P	
200	**Hg**	1	**0.305**	ug/l	3.05	6.8	45	209	P	
205	**Tl**	1	**0.362**	ug/l	3.62	6.4	4500	209	P	
208	**Pb**	1	**12.720**	ug/l	127.20	2.6	4500	209	P	
238	**U**	1	**9.144**	ug/l	91.44	3.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64193	1.92	70500	**91.1**	30	-	125	
45	Sc	1	1708318	2.20	1703000	**100.3**	30	-	125	
74	Ge	1	3687059	0.84	3864000	**95.4**	30	-	125	
103	Rh	1	4979406	0.34	5496000	**90.6**	30	-	125	
165	Ho	1	2403079	0.70	2487000	**96.6**	30	-	125	
175	Lu	1	2003079	0.24	2103000	**95.2**	30	-	125	
209	Bi	1	2339896	2.06	2573000	**90.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\109SMPL.D\109SMPL.D#
Date Acquired: Sep 14 2011 12:12 am Acq. Method: 00He_ALL.M
Sample Name: 580-28370-B-8-A Vial Number: 4305
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.472**	ug/l	4.72	11.0	900	6	P	
23	**Na**	1	**1197.000**	ug/l	11,970.00	2.2	450000	6	A	
24	**Mg**	1	**52180.000**	ug/l	521,800.00	2.4	450000	6	A	
27	**Al**	1	**27070.000**	ug/l	270,700.00	2.4	450000	6	A	
31	**P**	1	**571.800**	ug/l	5,718.00	2.5	450000	6	P	
39	**K**	1	**1623.000**	ug/l	16,230.00	2.5	450000	45	A	
44	**Ca**	1	**195400.000**	ug/l	1,954,000.00	3.0	450000	45	A	
47	**Ti**	1	**1875.000**	ug/l	18,750.00	3.8	4500	45	P	
51	**V**	1	**172.700**	ug/l	1,727.00	4.6	4500	45	A	
52	**Cr**	1	**4.842**	ug/l	48.42	3.2	4500	45	P	
55	**Mn**	1	**817.100**	ug/l	8,171.00	3.3	4500	45	A	
57	**Fe**	1	**29290.000**	ug/l	292,900.00	1.0	450000	74	A	
59	**Co**	1	**11.810**	ug/l	118.10	0.7	4500	74	P	
60	**Ni**	1	**13.020**	ug/l	130.20	1.8	4500	74	P	
63	**Cu**	1	**68.920**	ug/l	689.20	1.1	4500	74	P	
66	**Zn**	1	**58.400**	ug/l	584.00	0.6	4500	74	P	
75	**As**	1	**55.440**	ug/l	554.40	1.5	4500	74	P	
78	**Se**	1	**1.118**	ug/l	11.18	4.4	4500	74	P	
88	**Sr**	1	**1087.000**	ug/l	10,870.00	0.7	4500	74	A	
95	**Mo**	1	**0.588**	ug/l	5.88	5.5	4500	103	P	
109	**Ag**	1	**0.025**	ug/l	0.25	32.4	4500	103	P	
111	**Cd**	1	**0.282**	ug/l	2.82	10.1	4500	103	P	
118	**Sn**	1	**1.481**	ug/l	14.81	1.4	4500	103	P	
123	**Sb**	1	**0.126**	ug/l	1.26	6.5	4500	103	P	
135	**Ba**	1	**230.100**	ug/l	2,301.00	0.4	4500	103	P	
200	**Hg**	1	**0.167**	ug/l	1.67	2.6	45	209	P	
205	**Tl**	1	**0.184**	ug/l	1.84	4.6	4500	209	P	
208	**Pb**	1	**15.030**	ug/l	150.30	1.6	4500	209	P	
238	**U**	1	**2.771**	ug/l	27.71	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59619	1.48	70500	**84.6**	30	-	125	
45	Sc	1	1610110	3.24	1703000	**94.5**	30	-	125	
74	Ge	1	3473261	0.33	3864000	**89.9**	30	-	125	
103	Rh	1	4597750	0.77	5496000	**83.7**	30	-	125	
165	Ho	1	2232141	2.28	2487000	**89.8**	30	-	125	
175	Lu	1	1888078	1.71	2103000	**89.8**	30	-	125	
209	Bi	1	2132152	0.26	2573000	**82.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\110SMPL.D\110SMPL.D#
Date Acquired: Sep 14 2011 12:17 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.090**	ug/l	48.09	1.9	900	6	P	
23	**Na**	1	**4911.000**	ug/l	4,911.00	1.7	450000	6	A	
24	**Mg**	1	**4915.000**	ug/l	4,915.00	1.6	450000	6	A	
27	**Al**	1	**492.400**	ug/l	492.40	0.0	450000	6	P	
31	**P**	1	**4811.000**	ug/l	4,811.00	0.8	450000	6	P	
39	**K**	1	**4907.000**	ug/l	4,907.00	2.1	450000	45	A	
44	**Ca**	1	**4848.000**	ug/l	4,848.00	2.4	450000	45	P	
47	**Ti**	1	**49.010**	ug/l	49.01	2.9	4500	45	P	
51	**V**	1	**47.690**	ug/l	47.69	2.6	4500	45	P	
52	**Cr**	1	**48.000**	ug/l	48.00	2.9	4500	45	P	
55	**Mn**	1	**48.650**	ug/l	48.65	2.2	4500	45	P	
57	**Fe**	1	**4883.000**	ug/l	4,883.00	1.2	450000	74	A	
59	**Co**	1	**47.120**	ug/l	47.12	1.1	4500	74	P	
60	**Ni**	1	**48.090**	ug/l	48.09	1.0	4500	74	P	
63	**Cu**	1	**48.250**	ug/l	48.25	1.0	4500	74	P	
66	**Zn**	1	**47.100**	ug/l	47.10	1.5	4500	74	P	
75	**As**	1	**47.780**	ug/l	47.78	1.0	4500	74	P	
78	**Se**	1	**48.000**	ug/l	48.00	0.5	4500	74	P	
88	**Sr**	1	**48.400**	ug/l	48.40	0.7	4500	74	P	
95	**Mo**	1	**47.870**	ug/l	47.87	0.8	4500	103	P	
109	**Ag**	1	**48.510**	ug/l	48.51	1.6	4500	103	P	
111	**Cd**	1	**48.650**	ug/l	48.65	1.1	4500	103	P	
118	**Sn**	1	**48.180**	ug/l	48.18	1.2	4500	103	P	
123	**Sb**	1	**48.420**	ug/l	48.42	1.5	4500	103	P	
135	**Ba**	1	**48.930**	ug/l	48.93	0.4	4500	103	P	
200	**Hg**	1	**2.419**	ug/l	2.42	3.1	45	209	P	
205	**Tl**	1	**46.900**	ug/l	46.90	1.5	4500	209	P	
208	**Pb**	1	**48.380**	ug/l	48.38	2.3	4500	209	P	
238	**U**	1	**48.260**	ug/l	48.26	2.2	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64566	0.66	70500	**91.6**	30	-	125	
45	Sc	1	1636376	2.66	1703000	**96.1**	30	-	125	
74	Ge	1	3701659	0.78	3864000	**95.8**	30	-	125	
103	Rh	1	5013096	0.97	5496000	**91.2**	30	-	125	
165	Ho	1	2326777	0.49	2487000	**93.6**	30	-	125	
175	Lu	1	1969931	0.20	2103000	**93.7**	30	-	125	
209	Bi	1	2335769	1.42	2573000	**90.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\111SMPL.D\111SMPL.D#
Date Acquired: Sep 14 2011 12:21 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.011**	ug/l	0.01	31.2	900	6	P	
23	**Na**	1	**1.952**	ug/l	1.95	123.6	450000	6	P	
24	**Mg**	1	**3.985**	ug/l	3.99	26.1	450000	6	P	
27	**Al**	1	**1.885**	ug/l	1.89	20.8	450000	6	P	
31	**P**	1	**0.192**	ug/l	0.19	537.9	450000	6	P	
39	**K**	1	**10.240**	ug/l	10.24	16.7	450000	45	P	
44	**Ca**	1	**10.360**	ug/l	10.36	27.5	450000	45	P	
47	**Ti**	1	**0.363**	ug/l	0.36	14.5	4500	45	P	
51	**V**	1	**0.029**	ug/l	0.03	68.9	4500	45	P	
52	**Cr**	1	**0.017**	ug/l	0.02	7.2	4500	45	P	
55	**Mn**	1	**0.092**	ug/l	0.09	28.4	4500	45	P	
57	**Fe**	1	**4.908**	ug/l	4.91	5.4	450000	74	P	
59	**Co**	1	**0.012**	ug/l	0.01	17.4	4500	74	P	
60	**Ni**	1	**0.011**	ug/l	0.01	55.7	4500	74	P	
63	**Cu**	1	**0.052**	ug/l	0.05	26.3	4500	74	P	
66	**Zn**	1	**0.019**	ug/l	0.02	140.7	4500	74	P	
75	**As**	1	**0.030**	ug/l	0.03	42.6	4500	74	P	
78	**Se**	1	**0.183**	ug/l	0.18	26.4	4500	74	P	
88	**Sr**	1	**0.061**	ug/l	0.06	8.4	4500	74	P	
95	**Mo**	1	**0.096**	ug/l	0.10	1.4	4500	103	P	
109	**Ag**	1	**0.010**	ug/l	0.01	14.3	4500	103	P	
111	**Cd**	1	**0.030**	ug/l	0.03	31.2	4500	103	P	
118	**Sn**	1	**0.188**	ug/l	0.19	7.0	4500	103	P	
123	**Sb**	1	**0.048**	ug/l	0.05	17.9	4500	103	P	
135	**Ba**	1	**0.031**	ug/l	0.03	27.8	4500	103	P	
200	**Hg**	1	**0.020**	ug/l	0.02	11.3	45	209	P	
205	**Tl**	1	**0.270**	ug/l	0.27	11.0	4500	209	P	
208	**Pb**	1	**0.010**	ug/l	0.01	181.0	4500	209	P	
238	**U**	1	**0.018**	ug/l	0.02	17.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63910	2.19	70500	**90.7**	30	-	125	
45	Sc	1	1608587	1.32	1703000	**94.5**	30	-	125	
74	Ge	1	3697166	0.95	3864000	**95.7**	30	-	125	
103	Rh	1	5224606	1.09	5496000	**95.1**	30	-	125	
165	Ho	1	2334337	0.92	2487000	**93.9**	30	-	125	
175	Lu	1	1965661	0.28	2103000	**93.5**	30	-	125	
209	Bi	1	2409268	0.85	2573000	**93.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\112SMPL.D\112SMPL.D#
Date Acquired: Sep 14 2011 12:25 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95192/26-A Vial Number: 2101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.001**	ug/l	0.01	618.4	900	6	P	
23	Na	1	**1.066**	ug/l	10.66	83.0	450000	6	P	
24	Mg	1	**1.051**	ug/l	10.51	28.1	450000	6	P	
27	Al	1	**1.419**	ug/l	14.19	15.7	450000	6	P	
31	P	1	**-0.156**	ug/l	-1.56	586.0	450000	6	P	
39	K	1	**6.452**	ug/l	64.52	14.4	450000	45	P	
44	Ca	1	**7.144**	ug/l	71.44	13.4	450000	45	P	
47	Ti	1	**0.248**	ug/l	2.48	27.8	4500	45	P	
51	V	1	**0.008**	ug/l	0.08	246.9	4500	45	P	
52	Cr	1	**0.007**	ug/l	0.07	200.1	4500	45	P	
55	Mn	1	**0.072**	ug/l	0.72	12.4	4500	45	P	
57	Fe	1	**3.082**	ug/l	30.82	11.7	450000	74	P	
59	Co	1	**0.003**	ug/l	0.03	26.2	4500	74	P	
60	Ni	1	**0.014**	ug/l	0.14	62.2	4500	74	P	
63	Cu	1	**0.088**	ug/l	0.88	17.5	4500	74	P	
66	Zn	1	**0.243**	ug/l	2.43	9.4	4500	74	P	
75	As	1	**-0.004**	ug/l	-0.04	213.5	4500	74	P	
78	Se	1	**0.130**	ug/l	1.30	58.0	4500	74	P	
88	Sr	1	**0.035**	ug/l	0.35	11.0	4500	74	P	
95	Mo	1	**0.032**	ug/l	0.32	7.8	4500	103	P	
109	Ag	1	**0.002**	ug/l	0.02	107.3	4500	103	P	
111	Cd	1	**0.021**	ug/l	0.21	35.2	4500	103	P	
118	Sn	1	**0.073**	ug/l	0.73	20.6	4500	103	P	
123	Sb	1	**0.020**	ug/l	0.20	30.5	4500	103	P	
135	Ba	1	**0.053**	ug/l	0.53	34.6	4500	103	P	
200	Hg	1	**0.020**	ug/l	0.20	8.8	45	209	P	
205	Tl	1	**0.097**	ug/l	0.97	19.9	4500	209	P	
208	Pb	1	**0.009**	ug/l	0.09	49.6	4500	209	P	
238	U	1	**0.003**	ug/l	0.03	47.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64248	0.21	70500	**91.1**	30	-	125	
45	Sc	1	1653995	0.34	1703000	**97.1**	30	-	125	
74	Ge	1	3701876	0.47	3864000	**95.8**	30	-	125	
103	Rh	1	5256843	0.62	5496000	**95.6**	30	-	125	
165	Ho	1	2383711	0.43	2487000	**95.8**	30	-	125	
175	Lu	1	1994387	1.58	2103000	**94.8**	30	-	125	
209	Bi	1	2425729	0.74	2573000	**94.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\113SMPL.D\113SMPL.D#
Date Acquired: Sep 14 2011 12:30 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-6-G SD Vial Number: 2102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.224**	ug/l	11.18	13.3	900	6	P	
23	**Na**	1	**87.730**	ug/l	4,386.50	0.9	450000	6	P	
24	**Mg**	1	**1973.000**	ug/l	98,650.00	0.7	450000	6	A	
27	**Al**	1	**6097.000**	ug/l	304,850.00	1.5	450000	6	A	
31	**P**	1	**363.100**	ug/l	18,155.00	1.7	450000	6	P	
39	**K**	1	**592.300**	ug/l	29,615.00	2.3	450000	45	A	
44	**Ca**	1	**1733.000**	ug/l	86,650.00	1.4	450000	45	P	
47	**Ti**	1	**676.900**	ug/l	33,845.00	1.6	4500	45	P	
51	**V**	1	**35.200**	ug/l	1,760.00	2.0	4500	45	P	
52	**Cr**	1	**10.330**	ug/l	516.50	1.3	4500	45	P	
55	**Mn**	1	**309.300**	ug/l	15,465.00	0.8	4500	45	A	
57	**Fe**	1	**13420.000**	ug/l	671,000.00	1.5	450000	74	A	
59	**Co**	1	**6.622**	ug/l	331.10	3.4	4500	74	P	
60	**Ni**	1	**8.254**	ug/l	412.70	4.1	4500	74	P	
63	**Cu**	1	**17.440**	ug/l	872.00	1.4	4500	74	P	
66	**Zn**	1	**30.600**	ug/l	1,530.00	0.7	4500	74	P	
75	**As**	1	**2.014**	ug/l	100.70	1.2	4500	74	P	
78	**Se**	1	**0.455**	ug/l	22.74	9.1	4500	74	P	
88	**Sr**	1	**19.810**	ug/l	990.50	1.5	4500	74	P	
95	**Mo**	1	**0.211**	ug/l	10.53	4.8	4500	103	P	
109	**Ag**	1	**0.027**	ug/l	1.36	9.3	4500	103	P	
111	**Cd**	1	**0.632**	ug/l	31.59	1.1	4500	103	P	
118	**Sn**	1	**0.639**	ug/l	31.96	3.2	4500	103	P	
123	**Sb**	1	**0.661**	ug/l	33.05	3.2	4500	103	P	
135	**Ba**	1	**58.950**	ug/l	2,947.50	1.2	4500	103	P	
200	**Hg**	1	**0.026**	ug/l	1.32	14.7	45	209	P	
205	**Tl**	1	**0.119**	ug/l	5.95	0.5	4500	209	P	
208	**Pb**	1	**12.790**	ug/l	639.50	3.8	4500	209	P	
238	**U**	1	**0.263**	ug/l	13.15	6.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72052	0.64	70500	**102.2**	30	-	125	
45	Sc	1	1729997	1.44	1703000	**101.6**	30	-	125	
74	Ge	1	3753409	1.20	3864000	**97.1**	30	-	125	
103	Rh	1	5082092	1.74	5496000	**92.5**	30	-	125	
165	Ho	1	2351159	0.65	2487000	**94.5**	30	-	125	
175	Lu	1	1976317	2.06	2103000	**94.0**	30	-	125	
209	Bi	1	2309676	2.97	2573000	**89.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\114SMPL.D\114SMPL.D#
Date Acquired: Sep 14 2011 12:34 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-6-G Vial Number: 2103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.301**	ug/l	13.01	10.4	900	6	P	
23	**Na**	1	**520.100**	ug/l	5,201.00	2.3	450000	6	A	
24	**Mg**	1	**10100.000**	ug/l	101,000.00	0.9	450000	6	A	
27	**Al**	1	**31180.000**	ug/l	311,800.00	1.0	450000	6	A	
31	**P**	1	**1913.000**	ug/l	19,130.00	0.7	450000	6	P	
39	**K**	1	**2693.000**	ug/l	26,930.00	1.8	450000	45	A	
44	**Ca**	1	**8411.000**	ug/l	84,110.00	2.6	450000	45	P	
47	**Ti**	1	**3401.000**	ug/l	34,010.00	1.9	4500	45	A	
51	**V**	1	**173.600**	ug/l	1,736.00	1.7	4500	45	A	
52	**Cr**	1	**50.640**	ug/l	506.40	2.8	4500	45	P	
55	**Mn**	1	**1474.000**	ug/l	14,740.00	2.0	4500	45	A	
57	**Fe**	1	**64200.000**	ug/l	642,000.00	0.2	450000	74	A	
59	**Co**	1	**32.610**	ug/l	326.10	0.2	4500	74	P	
60	**Ni**	1	**39.590**	ug/l	395.90	0.4	4500	74	P	
63	**Cu**	1	**83.140**	ug/l	831.40	1.5	4500	74	P	
66	**Zn**	1	**149.200**	ug/l	1,492.00	1.7	4500	74	P	
75	**As**	1	**10.410**	ug/l	104.10	1.9	4500	74	P	
78	**Se**	1	**1.796**	ug/l	17.96	11.9	4500	74	P	
88	**Sr**	1	**99.070**	ug/l	990.70	0.1	4500	74	P	
95	**Mo**	1	**1.019**	ug/l	10.19	5.8	4500	103	P	
109	**Ag**	1	**0.132**	ug/l	1.32	5.8	4500	103	P	
111	**Cd**	1	**3.021**	ug/l	30.21	4.1	4500	103	P	
118	**Sn**	1	**3.096**	ug/l	30.96	1.4	4500	103	P	
123	**Sb**	1	**3.290**	ug/l	32.90	2.5	4500	103	P	
135	**Ba**	1	**298.200**	ug/l	2,982.00	2.0	4500	103	P	
200	**Hg**	1	**0.090**	ug/l	0.90	11.1	45	209	P	
205	**Tl**	1	**0.295**	ug/l	2.95	3.9	4500	209	P	
208	**Pb**	1	**62.520**	ug/l	625.20	3.1	4500	209	P	
238	**U**	1	**1.293**	ug/l	12.93	1.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60998	0.53	70500	**86.5**	30	-	125	
45	Sc	1	1620822	2.08	1703000	**95.2**	30	-	125	
74	Ge	1	3552040	0.66	3864000	**91.9**	30	-	125	
103	Rh	1	4840618	1.02	5496000	**88.1**	30	-	125	
165	Ho	1	2353688	2.65	2487000	**94.6**	30	-	125	
175	Lu	1	1958995	1.11	2103000	**93.2**	30	-	125	
209	Bi	1	2273066	2.04	2573000	**88.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\115SMPL.D\115SMPL.D#
Date Acquired: Sep 14 2011 12:38 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-6-H DU Vial Number: 2104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.289**	ug/l	12.89	2.3	900	6	P	
23	Na	1	**522.100**	ug/l	5,221.00	1.9	450000	6	A	
24	Mg	1	**10090.000**	ug/l	100,900.00	1.5	450000	6	A	
27	Al	1	**31690.000**	ug/l	316,900.00	1.5	450000	6	A	
31	P	1	**1934.000**	ug/l	19,340.00	2.0	450000	6	P	
39	K	1	**2733.000**	ug/l	27,330.00	1.0	450000	45	A	
44	Ca	1	**8326.000**	ug/l	83,260.00	2.1	450000	45	P	
47	Ti	1	**3334.000**	ug/l	33,340.00	1.4	4500	45	A	
51	V	1	**172.400**	ug/l	1,724.00	2.4	4500	45	A	
52	Cr	1	**50.530**	ug/l	505.30	2.6	4500	45	P	
55	Mn	1	**1476.000**	ug/l	14,760.00	2.7	4500	45	A	
57	Fe	1	**64800.000**	ug/l	648,000.00	1.7	450000	74	A	
59	Co	1	**32.470**	ug/l	324.70	1.8	4500	74	P	
60	Ni	1	**39.380**	ug/l	393.80	1.6	4500	74	P	
63	Cu	1	**82.200**	ug/l	822.00	1.2	4500	74	P	
66	Zn	1	**149.100**	ug/l	1,491.00	1.1	4500	74	P	
75	As	1	**10.400**	ug/l	104.00	1.6	4500	74	P	
78	Se	1	**1.778**	ug/l	17.78	4.4	4500	74	P	
88	Sr	1	**97.720**	ug/l	977.20	1.5	4500	74	P	
95	Mo	1	**1.046**	ug/l	10.46	3.4	4500	103	P	
109	Ag	1	**0.131**	ug/l	1.31	4.1	4500	103	P	
111	Cd	1	**2.920**	ug/l	29.20	5.2	4500	103	P	
118	Sn	1	**3.201**	ug/l	32.01	1.4	4500	103	P	
123	Sb	1	**3.260**	ug/l	32.60	2.2	4500	103	P	
135	Ba	1	**296.200**	ug/l	2,962.00	0.3	4500	103	P	
200	Hg	1	**0.085**	ug/l	0.85	8.2	45	209	P	
205	Tl	1	**0.289**	ug/l	2.89	4.6	4500	209	P	
208	Pb	1	**62.280**	ug/l	622.80	2.2	4500	209	P	
238	U	1	**1.286**	ug/l	12.86	2.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	62479	1.12	70500	**88.6**	30 - 125	
45	Sc	1	1656254	2.70	1703000	**97.3**	30 - 125	
74	Ge	1	3609033	1.79	3864000	**93.4**	30 - 125	
103	Rh	1	4874070	0.83	5496000	**88.7**	30 - 125	
165	Ho	1	2352550	1.78	2487000	**94.6**	30 - 125	
175	Lu	1	1963184	0.53	2103000	**93.4**	30 - 125	
209	Bi	1	2284249	1.92	2573000	**88.8**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\116SMPL.D\116SMPL.D#
Date Acquired: Sep 14 2011 12:43 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-6-I MS Vial Number: 2105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.337**	ug/l	116.85	2.5	900	6	P	
23	**Na**	1	**585.800**	ug/l	29,290.00	2.3	450000	6	A	
24	**Mg**	1	**2358.000**	ug/l	117,900.00	0.6	450000	6	A	
27	**Al**	1	**7571.000**	ug/l	378,550.00	0.8	450000	6	A	
31	**P**	1	**744.000**	ug/l	37,200.00	1.0	450000	6	P	
39	**K**	1	**1031.000**	ug/l	51,550.00	1.4	450000	45	A	
44	**Ca**	1	**2101.000**	ug/l	105,050.00	0.8	450000	45	P	
47	**Ti**	1	**767.600**	ug/l	38,380.00	0.3	4500	45	P	
51	**V**	1	**53.380**	ug/l	2,669.00	0.3	4500	45	P	
52	**Cr**	1	**18.410**	ug/l	920.50	0.5	4500	45	P	
55	**Mn**	1	**322.500**	ug/l	16,125.00	2.7	4500	45	A	
57	**Fe**	1	**13680.000**	ug/l	684,000.00	4.0	450000	74	A	
59	**Co**	1	**28.090**	ug/l	1,404.50	2.8	4500	74	P	
60	**Ni**	1	**30.580**	ug/l	1,529.00	3.5	4500	74	P	
63	**Cu**	1	**27.200**	ug/l	1,360.00	3.7	4500	74	P	
66	**Zn**	1	**50.780**	ug/l	2,539.00	3.5	4500	74	P	
75	**As**	1	**86.910**	ug/l	4,345.50	3.0	4500	74	P	
78	**Se**	1	**83.520**	ug/l	4,176.00	4.3	4500	74	P	
88	**Sr**	1	**64.000**	ug/l	3,200.00	3.3	4500	74	P	
95	**Mo**	1	**102.500**	ug/l	5,125.00	1.8	4500	103	P	
109	**Ag**	1	**12.800**	ug/l	640.00	2.2	4500	103	P	
111	**Cd**	1	**2.655**	ug/l	132.75	2.6	4500	103	P	
118	**Sn**	1	**98.540**	ug/l	4,927.00	2.5	4500	103	P	
123	**Sb**	1	**24.450**	ug/l	1,222.50	1.6	4500	103	P	
135	**Ba**	1	**142.500**	ug/l	7,125.00	1.9	4500	103	P	
200	**Hg**	1	**1.049**	ug/l	52.45	0.6	45	209	P	
205	**Tl**	1	**89.190**	ug/l	4,459.50	2.3	4500	209	A	
208	**Pb**	1	**34.380**	ug/l	1,719.00	2.9	4500	209	P	
238	**U**	1	**0.249**	ug/l	12.46	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70687	1.24	70500	**100.3**	30	-	125	
45	Sc	1	1750576	0.82	1703000	**102.8**	30	-	125	
74	Ge	1	3721544	3.11	3864000	**96.3**	30	-	125	
103	Rh	1	5033790	1.25	5496000	**91.6**	30	-	125	
165	Ho	1	2358625	0.55	2487000	**94.8**	30	-	125	
175	Lu	1	1983930	1.99	2103000	**94.3**	30	-	125	
209	Bi	1	2287104	2.17	2573000	**88.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\117SMPL.D\117SMPL.D#
Date Acquired: Sep 14 2011 12:47 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-6-J MSD Vial Number: 2106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.292**	ug/l	114.60	1.1	900	6	P	
23	**Na**	1	**569.300**	ug/l	28,465.00	2.0	450000	6	A	
24	**Mg**	1	**2324.000**	ug/l	116,200.00	1.0	450000	6	A	
27	**Al**	1	**7315.000**	ug/l	365,750.00	0.7	450000	6	A	
31	**P**	1	**731.800**	ug/l	36,590.00	0.8	450000	6	P	
39	**K**	1	**1020.000**	ug/l	51,000.00	1.6	450000	45	A	
44	**Ca**	1	**2091.000**	ug/l	104,550.00	3.2	450000	45	P	
47	**Ti**	1	**757.000**	ug/l	37,850.00	3.3	4500	45	P	
51	**V**	1	**53.140**	ug/l	2,657.00	4.1	4500	45	P	
52	**Cr**	1	**18.190**	ug/l	909.50	4.6	4500	45	P	
55	**Mn**	1	**324.400**	ug/l	16,220.00	4.1	4500	45	A	
57	**Fe**	1	**13400.000**	ug/l	670,000.00	2.4	450000	74	A	
59	**Co**	1	**27.330**	ug/l	1,366.50	2.8	4500	74	P	
60	**Ni**	1	**30.030**	ug/l	1,501.50	3.0	4500	74	P	
63	**Cu**	1	**26.670**	ug/l	1,333.50	2.8	4500	74	P	
66	**Zn**	1	**49.780**	ug/l	2,489.00	1.6	4500	74	P	
75	**As**	1	**84.760**	ug/l	4,238.00	2.7	4500	74	P	
78	**Se**	1	**82.170**	ug/l	4,108.50	2.0	4500	74	P	
88	**Sr**	1	**62.690**	ug/l	3,134.50	2.4	4500	74	P	
95	**Mo**	1	**101.800**	ug/l	5,090.00	2.6	4500	103	P	
109	**Ag**	1	**12.670**	ug/l	633.50	2.1	4500	103	P	
111	**Cd**	1	**2.611**	ug/l	130.55	7.4	4500	103	P	
118	**Sn**	1	**97.530**	ug/l	4,876.50	3.4	4500	103	P	
123	**Sb**	1	**24.110**	ug/l	1,205.50	2.4	4500	103	P	
135	**Ba**	1	**139.500**	ug/l	6,975.00	3.1	4500	103	P	
200	**Hg**	1	**1.015**	ug/l	50.75	4.1	45	209	P	
205	**Tl**	1	**87.170**	ug/l	4,358.50	3.6	4500	209	A	
208	**Pb**	1	**33.590**	ug/l	1,679.50	3.8	4500	209	P	
238	**U**	1	**0.247**	ug/l	12.37	5.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72460	0.64	70500	**102.8**	30	-	125	
45	Sc	1	1772288	3.05	1703000	**104.1**	30	-	125	
74	Ge	1	3803231	1.88	3864000	**98.4**	30	-	125	
103	Rh	1	5112727	2.05	5496000	**93.0**	30	-	125	
165	Ho	1	2380678	0.91	2487000	**95.7**	30	-	125	
175	Lu	1	2004993	2.95	2103000	**95.3**	30	-	125	
209	Bi	1	2335953	2.47	2573000	**90.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\118SMPL.D\118SMPL.D#
Date Acquired: Sep 14 2011 12:51 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-6-G PDS Vial Number: 2107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.570**	ug/l	128.50	1.3	900	6	P	
23	**Na**	1	**626.200**	ug/l	31,310.00	1.9	450000	6	A	
24	**Mg**	1	**2571.000**	ug/l	128,550.00	2.1	450000	6	A	
27	**Al**	1	**8191.000**	ug/l	409,550.00	1.6	450000	6	A	
31	**P**	1	**815.500**	ug/l	40,775.00	1.0	450000	6	P	
39	**K**	1	**1116.000**	ug/l	55,800.00	2.7	450000	45	A	
44	**Ca**	1	**2293.000**	ug/l	114,650.00	2.1	450000	45	P	
47	**Ti**	1	**834.500**	ug/l	41,725.00	2.3	4500	45	P	
51	**V**	1	**58.130**	ug/l	2,906.50	3.4	4500	45	P	
52	**Cr**	1	**19.940**	ug/l	997.00	4.1	4500	45	P	
55	**Mn**	1	**350.400**	ug/l	17,520.00	2.7	4500	45	A	
57	**Fe**	1	**14510.000**	ug/l	725,500.00	1.2	450000	74	A	
59	**Co**	1	**29.590**	ug/l	1,479.50	2.3	4500	74	P	
60	**Ni**	1	**32.330**	ug/l	1,616.50	2.6	4500	74	P	
63	**Cu**	1	**28.900**	ug/l	1,445.00	2.1	4500	74	P	
66	**Zn**	1	**54.330**	ug/l	2,716.50	2.8	4500	74	P	
75	**As**	1	**91.950**	ug/l	4,597.50	2.4	4500	74	P	
78	**Se**	1	**88.210**	ug/l	4,410.50	2.4	4500	74	P	
88	**Sr**	1	**67.320**	ug/l	3,366.00	2.1	4500	74	P	
95	**Mo**	1	**108.300**	ug/l	5,415.00	2.3	4500	103	P	
109	**Ag**	1	**13.500**	ug/l	675.00	3.8	4500	103	P	
111	**Cd**	1	**2.765**	ug/l	138.25	3.8	4500	103	P	
118	**Sn**	1	**104.200**	ug/l	5,210.00	2.8	4500	103	P	
123	**Sb**	1	**25.810**	ug/l	1,290.50	3.1	4500	103	P	
135	**Ba**	1	**149.900**	ug/l	7,495.00	2.3	4500	103	P	
200	**Hg**	1	**1.126**	ug/l	56.30	6.4	45	209	P	
205	**Tl**	1	**93.610**	ug/l	4,680.50	2.5	4500	209	A	
208	**Pb**	1	**36.300**	ug/l	1,815.00	4.3	4500	209	P	
238	**U**	1	**0.259**	ug/l	12.95	4.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69062	0.34	70500	**98.0**	30	-	125	
45	Sc	1	1716241	2.12	1703000	**100.8**	30	-	125	
74	Ge	1	3742665	1.44	3864000	**96.9**	30	-	125	
103	Rh	1	5093452	1.69	5496000	**92.7**	30	-	125	
165	Ho	1	2350859	0.36	2487000	**94.5**	30	-	125	
175	Lu	1	1984699	1.22	2103000	**94.4**	30	-	125	
209	Bi	1	2298708	3.33	2573000	**89.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\119SMPL.D\119SMPL.D#
Date Acquired: Sep 14 2011 12:56 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95192/27-A Vial Number: 2108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.121**	ug/l	106.05	1.7	900	6	P	
23	**Na**	1	**433.300**	ug/l	21,665.00	2.4	450000	6	A	
24	**Mg**	1	**438.000**	ug/l	21,900.00	1.1	450000	6	P	
27	**Al**	1	**93.410**	ug/l	4,670.50	0.8	450000	6	P	
31	**P**	1	**404.800**	ug/l	20,240.00	3.3	450000	6	P	
39	**K**	1	**461.500**	ug/l	23,075.00	4.2	450000	45	M	
44	**Ca**	1	**418.300**	ug/l	20,915.00	1.9	450000	45	P	
47	**Ti**	1	**103.200**	ug/l	5,160.00	3.5	4500	45	P	
51	**V**	1	**21.050**	ug/l	1,052.50	3.3	4500	45	P	
52	**Cr**	1	**8.498**	ug/l	424.90	5.3	4500	45	P	
55	**Mn**	1	**21.760**	ug/l	1,088.00	3.1	4500	45	P	
57	**Fe**	1	**490.700**	ug/l	24,535.00	1.6	450000	74	P	
59	**Co**	1	**21.870**	ug/l	1,093.50	1.5	4500	74	P	
60	**Ni**	1	**22.300**	ug/l	1,115.00	1.9	4500	74	P	
63	**Cu**	1	**11.590**	ug/l	579.50	2.0	4500	74	P	
66	**Zn**	1	**21.800**	ug/l	1,090.00	0.9	4500	74	P	
75	**As**	1	**88.020**	ug/l	4,401.00	1.3	4500	74	P	
78	**Se**	1	**86.350**	ug/l	4,317.50	1.5	4500	74	P	
88	**Sr**	1	**44.610**	ug/l	2,230.50	1.6	4500	74	P	
95	**Mo**	1	**104.500**	ug/l	5,225.00	2.1	4500	103	P	
109	**Ag**	1	**12.890**	ug/l	644.50	1.5	4500	103	P	
111	**Cd**	1	**2.133**	ug/l	106.65	2.2	4500	103	P	
118	**Sn**	1	**102.200**	ug/l	5,110.00	1.5	4500	103	P	
123	**Sb**	1	**63.250**	ug/l	3,162.50	1.5	4500	103	P	
135	**Ba**	1	**85.620**	ug/l	4,281.00	0.7	4500	103	P	
200	**Hg**	1	**1.027**	ug/l	51.35	4.5	45	209	P	
205	**Tl**	1	**87.750**	ug/l	4,387.50	1.7	4500	209	A	
208	**Pb**	1	**22.010**	ug/l	1,100.50	3.9	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	69.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71373	0.61	70500	**101.2**	30	-	125	
45	Sc	1	1723397	3.93	1703000	**101.2**	30	-	125	
74	Ge	1	3766939	1.62	3864000	**97.5**	30	-	125	
103	Rh	1	5227039	1.56	5496000	**95.1**	30	-	125	
165	Ho	1	2352884	1.69	2487000	**94.6**	30	-	125	
175	Lu	1	1965266	2.84	2103000	**93.5**	30	-	125	
209	Bi	1	2356654	3.64	2573000	**91.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\120SMPL.D\120SMPL.D#
Date Acquired: Sep 14 2011 01:00 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95192/28-A Vial Number: 2109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.062**	ug/l	103.10	4.8	900	6	P	
23	**Na**	1	**413.900**	ug/l	20,695.00	1.2	450000	6	A	
24	**Mg**	1	**427.400**	ug/l	21,370.00	0.4	450000	6	P	
27	**Al**	1	**83.450**	ug/l	4,172.50	1.6	450000	6	P	
31	**P**	1	**399.200**	ug/l	19,960.00	2.8	450000	6	P	
39	**K**	1	**459.100**	ug/l	22,955.00	0.3	450000	45	P	
44	**Ca**	1	**416.500**	ug/l	20,825.00	0.5	450000	45	P	
47	**Ti**	1	**101.500**	ug/l	5,075.00	0.8	4500	45	P	
51	**V**	1	**20.790**	ug/l	1,039.50	0.4	4500	45	P	
52	**Cr**	1	**8.402**	ug/l	420.10	0.9	4500	45	P	
55	**Mn**	1	**21.370**	ug/l	1,068.50	0.9	4500	45	P	
57	**Fe**	1	**471.400**	ug/l	23,570.00	1.5	450000	74	P	
59	**Co**	1	**21.260**	ug/l	1,063.00	2.2	4500	74	P	
60	**Ni**	1	**22.010**	ug/l	1,100.50	1.7	4500	74	P	
63	**Cu**	1	**11.290**	ug/l	564.50	1.5	4500	74	P	
66	**Zn**	1	**21.570**	ug/l	1,078.50	1.6	4500	74	P	
75	**As**	1	**86.330**	ug/l	4,316.50	1.2	4500	74	P	
78	**Se**	1	**83.930**	ug/l	4,196.50	1.4	4500	74	P	
88	**Sr**	1	**43.260**	ug/l	2,163.00	1.6	4500	74	P	
95	**Mo**	1	**103.600**	ug/l	5,180.00	2.5	4500	103	P	
109	**Ag**	1	**12.680**	ug/l	634.00	2.9	4500	103	P	
111	**Cd**	1	**2.137**	ug/l	106.85	5.3	4500	103	P	
118	**Sn**	1	**101.600**	ug/l	5,080.00	3.4	4500	103	P	
123	**Sb**	1	**62.650**	ug/l	3,132.50	2.0	4500	103	P	
135	**Ba**	1	**84.590**	ug/l	4,229.50	2.5	4500	103	P	
200	**Hg**	1	**1.008**	ug/l	50.40	5.9	45	209	P	
205	**Tl**	1	**86.450**	ug/l	4,322.50	0.8	4500	209	A	
208	**Pb**	1	**21.690**	ug/l	1,084.50	3.2	4500	209	P	
238	**U**	1	**-0.001**	ug/l	-0.04	13.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72565	1.49	70500	**102.9**	30	-	125	
45	Sc	1	1718860	0.63	1703000	**100.9**	30	-	125	
74	Ge	1	3803133	0.98	3864000	**98.4**	30	-	125	
103	Rh	1	5199044	1.49	5496000	**94.6**	30	-	125	
165	Ho	1	2340181	0.60	2487000	**94.1**	30	-	125	
175	Lu	1	1970524	0.98	2103000	**93.7**	30	-	125	
209	Bi	1	2344246	2.03	2573000	**91.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\121SMPL.D\121SMPL.D#
Date Acquired: Sep 14 2011 01:04 am Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-95192/29-A Vial Number: 2110
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.140**	ug/l	922.80	0.8	900	6	P	
23	**Na**	1	**399.400**	ug/l	7,988.00	2.1	450000	6	A	
24	**Mg**	1	**1533.000**	ug/l	30,660.00	0.9	450000	6	A	
27	**Al**	1	**4126.000**	ug/l	82,520.00	0.7	450000	6	A	
31	**P**	1	**265.100**	ug/l	5,302.00	2.2	450000	6	P	
39	**K**	1	**1346.000**	ug/l	26,920.00	1.2	450000	45	A	
44	**Ca**	1	**3453.000**	ug/l	69,060.00	1.4	450000	45	P	
47	**Ti**	1	**108.600**	ug/l	2,172.00	1.5	4500	45	P	
51	**V**	1	**57.030**	ug/l	1,140.60	1.2	4500	45	P	
52	**Cr**	1	**47.530**	ug/l	950.60	1.1	4500	45	P	
55	**Mn**	1	**235.300**	ug/l	4,706.00	2.1	4500	45	A	
57	**Fe**	1	**7180.000**	ug/l	143,600.00	1.2	450000	74	A	
59	**Co**	1	**70.400**	ug/l	1,408.00	0.2	4500	74	P	
60	**Ni**	1	**57.460**	ug/l	1,149.20	0.6	4500	74	P	
63	**Cu**	1	**37.730**	ug/l	754.60	0.6	4500	74	P	
66	**Zn**	1	**154.600**	ug/l	3,092.00	0.4	4500	74	P	
75	**As**	1	**57.050**	ug/l	1,141.00	1.0	4500	74	P	
78	**Se**	1	**109.400**	ug/l	2,188.00	0.5	4500	74	P	
88	**Sr**	1	**58.320**	ug/l	1,166.40	0.4	4500	74	P	
95	**Mo**	1	**47.400**	ug/l	948.00	1.7	4500	103	P	
109	**Ag**	1	**26.320**	ug/l	526.40	1.4	4500	103	P	
111	**Cd**	1	**57.930**	ug/l	1,158.60	1.0	4500	103	P	
118	**Sn**	1	**71.030**	ug/l	1,420.60	1.7	4500	103	P	
123	**Sb**	1	**111.800**	ug/l	2,236.00	1.4	4500	103	P	
135	**Ba**	1	**168.300**	ug/l	3,366.00	1.8	4500	103	P	
200	**Hg**	1	**8.400**	ug/l	168.00	1.8	45	209	P	
205	**Tl**	1	**89.620**	ug/l	1,792.40	2.3	4500	209	A	
208	**Pb**	1	**84.540**	ug/l	1,690.80	1.5	4500	209	A	
238	**U**	1	**0.549**	ug/l	10.98	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61655	0.86	70500	**87.5**	30	-	125	
45	Sc	1	1612194	1.86	1703000	**94.7**	30	-	125	
74	Ge	1	3673610	0.97	3864000	**95.1**	30	-	125	
103	Rh	1	5029368	1.17	5496000	**91.5**	30	-	125	
165	Ho	1	2357747	0.63	2487000	**94.8**	30	-	125	
175	Lu	1	1972266	0.20	2103000	**93.8**	30	-	125	
209	Bi	1	2343380	0.91	2573000	**91.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\122SMPL.D\122SMPL.D#
Date Acquired: Sep 14 2011 01:09 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**47.990**	ug/l	47.99	0.9	900	6	P	
23	Na	1	**4893.000**	ug/l	4,893.00	0.9	450000	6	A	
24	Mg	1	**4895.000**	ug/l	4,895.00	1.3	450000	6	A	
27	Al	1	**490.700**	ug/l	490.70	1.2	450000	6	P	
31	P	1	**4873.000**	ug/l	4,873.00	0.9	450000	6	P	
39	K	1	**4965.000**	ug/l	4,965.00	2.5	450000	45	A	
44	Ca	1	**4846.000**	ug/l	4,846.00	2.5	450000	45	P	
47	Ti	1	**47.900**	ug/l	47.90	2.3	4500	45	P	
51	V	1	**47.590**	ug/l	47.59	2.1	4500	45	P	
52	Cr	1	**47.850**	ug/l	47.85	2.1	4500	45	P	
55	Mn	1	**48.730**	ug/l	48.73	2.7	4500	45	P	
57	Fe	1	**4952.000**	ug/l	4,952.00	1.1	450000	74	A	
59	Co	1	**47.540**	ug/l	47.54	0.5	4500	74	P	
60	Ni	1	**48.760**	ug/l	48.76	1.0	4500	74	P	
63	Cu	1	**48.380**	ug/l	48.38	0.7	4500	74	P	
66	Zn	1	**47.680**	ug/l	47.68	0.8	4500	74	P	
75	As	1	**48.100**	ug/l	48.10	0.1	4500	74	P	
78	Se	1	**48.460**	ug/l	48.46	0.4	4500	74	P	
88	Sr	1	**48.940**	ug/l	48.94	1.5	4500	74	P	
95	Mo	1	**47.490**	ug/l	47.49	0.1	4500	103	P	
109	Ag	1	**47.650**	ug/l	47.65	0.5	4500	103	P	
111	Cd	1	**47.800**	ug/l	47.80	0.9	4500	103	P	
118	Sn	1	**48.000**	ug/l	48.00	0.1	4500	103	P	
123	Sb	1	**47.820**	ug/l	47.82	0.0	4500	103	P	
135	Ba	1	**48.380**	ug/l	48.38	0.7	4500	103	P	
200	Hg	1	**2.432**	ug/l	2.43	1.2	45	209	P	
205	Tl	1	**47.260**	ug/l	47.26	1.1	4500	209	P	
208	Pb	1	**48.050**	ug/l	48.05	1.6	4500	209	P	
238	U	1	**48.990**	ug/l	48.99	2.3	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64659	0.18	70500	**91.7**	30	-	125	
45	Sc	1	1631298	2.66	1703000	**95.8**	30	-	125	
74	Ge	1	3676662	0.66	3864000	**95.2**	30	-	125	
103	Rh	1	5062175	0.61	5496000	**92.1**	30	-	125	
165	Ho	1	2330436	1.92	2487000	**93.7**	30	-	125	
175	Lu	1	1961849	1.31	2103000	**93.3**	30	-	125	
209	Bi	1	2355479	1.88	2573000	**91.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\123SMPL.D\123SMPL.D#
Date Acquired: Sep 14 2011 01:13 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.021**	ug/l	0.02	71.7	900	6	P	
23	**Na**	1	**0.486**	ug/l	0.49	432.9	450000	6	P	
24	**Mg**	1	**1.873**	ug/l	1.87	21.0	450000	6	P	
27	**Al**	1	**0.701**	ug/l	0.70	12.8	450000	6	P	
31	**P**	1	**1.684**	ug/l	1.68	91.0	450000	6	P	
39	**K**	1	**8.849**	ug/l	8.85	51.1	450000	45	P	
44	**Ca**	1	**1.724**	ug/l	1.72	33.2	450000	45	P	
47	**Ti**	1	**0.139**	ug/l	0.14	5.0	4500	45	P	
51	**V**	1	**0.019**	ug/l	0.02	62.1	4500	45	P	
52	**Cr**	1	**0.010**	ug/l	0.01	123.6	4500	45	P	
55	**Mn**	1	**0.062**	ug/l	0.06	27.8	4500	45	P	
57	**Fe**	1	**3.595**	ug/l	3.60	23.9	450000	74	P	
59	**Co**	1	**0.022**	ug/l	0.02	19.8	4500	74	P	
60	**Ni**	1	**0.014**	ug/l	0.01	76.8	4500	74	P	
63	**Cu**	1	**0.071**	ug/l	0.07	19.3	4500	74	P	
66	**Zn**	1	**0.034**	ug/l	0.03	15.0	4500	74	P	
75	**As**	1	**0.023**	ug/l	0.02	76.9	4500	74	P	
78	**Se**	1	**0.163**	ug/l	0.16	66.6	4500	74	P	
88	**Sr**	1	**0.018**	ug/l	0.02	43.5	4500	74	P	
95	**Mo**	1	**0.150**	ug/l	0.15	19.5	4500	103	P	
109	**Ag**	1	**0.019**	ug/l	0.02	7.1	4500	103	P	
111	**Cd**	1	**0.017**	ug/l	0.02	42.5	4500	103	P	
118	**Sn**	1	**0.506**	ug/l	0.51	16.0	4500	103	P	
123	**Sb**	1	**0.097**	ug/l	0.10	14.8	4500	103	P	
135	**Ba**	1	**0.047**	ug/l	0.05	26.6	4500	103	P	
200	**Hg**	1	**0.040**	ug/l	0.04	5.8	45	209	P	
205	**Tl**	1	**0.453**	ug/l	0.45	8.0	4500	209	P	
208	**Pb**	1	**0.025**	ug/l	0.03	17.6	4500	209	P	
238	**U**	1	**0.023**	ug/l	0.02	22.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65646	3.18	70500	**93.1**	30	-	125	
45	Sc	1	1629472	2.29	1703000	**95.7**	30	-	125	
74	Ge	1	3675277	0.86	3864000	**95.1**	30	-	125	
103	Rh	1	5134619	0.57	5496000	**93.4**	30	-	125	
165	Ho	1	2344271	1.46	2487000	**94.3**	30	-	125	
175	Lu	1	1989841	1.57	2103000	**94.6**	30	-	125	
209	Bi	1	2397475	1.93	2573000	**93.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\124SMPL.D\124SMPL.D#
Date Acquired: Sep 14 2011 01:18 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-12-D Vial Number: 2201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.438**	ug/l	14.38	5.7	900	6	P	
23	Na	1	**404.800**	ug/l	4,048.00	2.4	450000	6	A	
24	Mg	1	**12760.000**	ug/l	127,600.00	3.5	450000	6	A	
27	Al	1	**39340.000**	ug/l	393,400.00	3.2	450000	6	A	
31	P	1	**1498.000**	ug/l	14,980.00	3.4	450000	6	P	
39	K	1	**2529.000**	ug/l	25,290.00	0.9	450000	45	A	
44	Ca	1	**10400.000**	ug/l	104,000.00	2.3	450000	45	P	
47	Ti	1	**2877.000**	ug/l	28,770.00	0.9	4500	45	A	
51	V	1	**139.000**	ug/l	1,390.00	0.5	4500	45	A	
52	Cr	1	**44.720**	ug/l	447.20	2.1	4500	45	P	
55	Mn	1	**1113.000**	ug/l	11,130.00	2.7	4500	45	A	
57	Fe	1	**67140.000**	ug/l	671,400.00	0.5	450000	74	A	
59	Co	1	**27.450**	ug/l	274.50	1.3	4500	74	P	
60	Ni	1	**46.300**	ug/l	463.00	2.2	4500	74	P	
63	Cu	1	**52.380**	ug/l	523.80	1.5	4500	74	P	
66	Zn	1	**129.800**	ug/l	1,298.00	1.5	4500	74	P	
75	As	1	**11.760**	ug/l	117.60	0.9	4500	74	P	
78	Se	1	**1.745**	ug/l	17.45	2.9	4500	74	P	
88	Sr	1	**106.800**	ug/l	1,068.00	0.5	4500	74	P	
95	Mo	1	**0.803**	ug/l	8.03	3.2	4500	103	P	
109	Ag	1	**0.110**	ug/l	1.10	4.7	4500	103	P	
111	Cd	1	**0.568**	ug/l	5.68	18.3	4500	103	P	
118	Sn	1	**2.675**	ug/l	26.75	4.1	4500	103	P	
123	Sb	1	**0.386**	ug/l	3.86	6.7	4500	103	P	
135	Ba	1	**345.100**	ug/l	3,451.00	0.4	4500	103	P	
200	Hg	1	**0.091**	ug/l	0.91	8.3	45	209	P	
205	Tl	1	**0.539**	ug/l	5.39	3.4	4500	209	P	
208	Pb	1	**19.160**	ug/l	191.60	1.8	4500	209	P	
238	U	1	**1.403**	ug/l	14.03	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62207	1.86	70500	**88.2**	30	-	125	
45	Sc	1	1669493	3.14	1703000	**98.0**	30	-	125	
74	Ge	1	3583109	1.09	3864000	**92.7**	30	-	125	
103	Rh	1	4857234	0.77	5496000	**88.4**	30	-	125	
165	Ho	1	2327091	0.85	2487000	**93.6**	30	-	125	
175	Lu	1	1958857	1.32	2103000	**93.1**	30	-	125	
209	Bi	1	2276212	1.39	2573000	**88.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\125SMPL.D\125SMPL.D#
Date Acquired: Sep 14 2011 01:22 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-12-E MS Vial Number: 2202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.416**	ug/l	120.80	5.7	900	6	P	
23	**Na**	1	**528.200**	ug/l	26,410.00	5.7	450000	6	A	
24	**Mg**	1	**3274.000**	ug/l	163,700.00	2.9	450000	6	A	
27	**Al**	1	**9795.000**	ug/l	489,750.00	3.0	450000	6	A	
31	**P**	1	**713.300**	ug/l	35,665.00	0.8	450000	6	P	
39	**K**	1	**1180.000**	ug/l	59,000.00	3.0	450000	45	A	
44	**Ca**	1	**2625.000**	ug/l	131,250.00	1.2	450000	45	P	
47	**Ti**	1	**730.700**	ug/l	36,535.00	0.6	4500	45	P	
51	**V**	1	**52.170**	ug/l	2,608.50	0.6	4500	45	P	
52	**Cr**	1	**19.610**	ug/l	980.50	0.9	4500	45	P	
55	**Mn**	1	**316.400**	ug/l	15,820.00	2.1	4500	45	A	
57	**Fe**	1	**15640.000**	ug/l	782,000.00	4.0	450000	74	A	
59	**Co**	1	**27.900**	ug/l	1,395.00	2.3	4500	74	P	
60	**Ni**	1	**32.260**	ug/l	1,613.00	2.7	4500	74	P	
63	**Cu**	1	**23.900**	ug/l	1,195.00	3.4	4500	74	P	
66	**Zn**	1	**51.780**	ug/l	2,589.00	2.3	4500	74	P	
75	**As**	1	**89.280**	ug/l	4,464.00	2.8	4500	74	P	
78	**Se**	1	**85.100**	ug/l	4,255.00	3.0	4500	74	P	
88	**Sr**	1	**66.830**	ug/l	3,341.50	2.0	4500	74	P	
95	**Mo**	1	**104.300**	ug/l	5,215.00	0.8	4500	103	P	
109	**Ag**	1	**12.940**	ug/l	647.00	0.6	4500	103	P	
111	**Cd**	1	**2.295**	ug/l	114.75	3.5	4500	103	P	
118	**Sn**	1	**103.800**	ug/l	5,190.00	1.1	4500	103	P	
123	**Sb**	1	**31.550**	ug/l	1,577.50	0.7	4500	103	P	
135	**Ba**	1	**156.700**	ug/l	7,835.00	0.7	4500	103	P	
200	**Hg**	1	**1.100**	ug/l	55.00	4.3	45	209	P	
205	**Tl**	1	**89.740**	ug/l	4,487.00	7.2	4500	209	A	
208	**Pb**	1	**27.560**	ug/l	1,378.00	2.2	4500	209	P	
238	**U**	1	**0.318**	ug/l	15.91	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72951	1.33	70500	**103.5**	30	-	125	
45	Sc	1	1747034	0.50	1703000	**102.6**	30	-	125	
74	Ge	1	3780272	2.16	3864000	**97.8**	30	-	125	
103	Rh	1	5065956	1.05	5496000	**92.2**	30	-	125	
165	Ho	1	2346128	2.18	2487000	**94.3**	30	-	125	
175	Lu	1	1969665	1.62	2103000	**93.7**	30	-	125	
209	Bi	1	2264602	2.19	2573000	**88.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\126SMPL.D\126SMPL.D#
Date Acquired: Sep 14 2011 01:26 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-12-F MSD Vial Number: 2203
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.353**	ug/l	117.65	3.2	900	6	P	
23	**Na**	1	**499.600**	ug/l	24,980.00	3.8	450000	6	A	
24	**Mg**	1	**3012.000**	ug/l	150,600.00	3.3	450000	6	A	
27	**Al**	1	**9202.000**	ug/l	460,100.00	2.3	450000	6	A	
31	**P**	1	**686.100**	ug/l	34,305.00	1.9	450000	6	P	
39	**K**	1	**1117.000**	ug/l	55,850.00	6.2	450000	45	A	
44	**Ca**	1	**2423.000**	ug/l	121,150.00	3.5	450000	45	P	
47	**Ti**	1	**689.400**	ug/l	34,470.00	3.6	4500	45	P	
51	**V**	1	**49.760**	ug/l	2,488.00	4.2	4500	45	P	
52	**Cr**	1	**18.310**	ug/l	915.50	4.3	4500	45	P	
55	**Mn**	1	**334.700**	ug/l	16,735.00	5.1	4500	45	A	
57	**Fe**	1	**14730.000**	ug/l	736,500.00	3.0	450000	74	A	
59	**Co**	1	**27.980**	ug/l	1,399.00	1.8	4500	74	P	
60	**Ni**	1	**31.320**	ug/l	1,566.00	2.2	4500	74	P	
63	**Cu**	1	**22.090**	ug/l	1,104.50	2.0	4500	74	P	
66	**Zn**	1	**49.010**	ug/l	2,450.50	2.6	4500	74	P	
75	**As**	1	**88.780**	ug/l	4,439.00	1.2	4500	74	P	
78	**Se**	1	**84.950**	ug/l	4,247.50	2.1	4500	74	P	
88	**Sr**	1	**63.990**	ug/l	3,199.50	2.3	4500	74	P	
95	**Mo**	1	**103.200**	ug/l	5,160.00	1.0	4500	103	P	
109	**Ag**	1	**12.700**	ug/l	635.00	1.7	4500	103	P	
111	**Cd**	1	**2.225**	ug/l	111.25	3.4	4500	103	P	
118	**Sn**	1	**103.300**	ug/l	5,165.00	0.5	4500	103	P	
123	**Sb**	1	**31.080**	ug/l	1,554.00	0.3	4500	103	P	
135	**Ba**	1	**151.500**	ug/l	7,575.00	1.0	4500	103	P	
200	**Hg**	1	**1.049**	ug/l	52.45	2.7	45	209	P	
205	**Tl**	1	**87.110**	ug/l	4,355.50	2.0	4500	209	A	
208	**Pb**	1	**26.170**	ug/l	1,308.50	5.3	4500	209	P	
238	**U**	1	**0.283**	ug/l	14.13	7.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71659	0.41	70500	**101.6**	30	-	125	
45	Sc	1	1724579	4.19	1703000	**101.3**	30	-	125	
74	Ge	1	3779064	0.68	3864000	**97.8**	30	-	125	
103	Rh	1	5138465	0.71	5496000	**93.5**	30	-	125	
165	Ho	1	2320096	3.17	2487000	**93.3**	30	-	125	
175	Lu	1	1911160	3.62	2103000	**90.9**	30	-	125	
209	Bi	1	2349440	4.20	2573000	**91.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\127SMPL.D\127SMPL.D#
Date Acquired: Sep 14 2011 01:30 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**47.930**	ug/l	47.93	0.5	900	6	P	
23	**Na**	1	**4940.000**	ug/l	4,940.00	2.4	450000	6	A	
24	**Mg**	1	**4909.000**	ug/l	4,909.00	0.2	450000	6	A	
27	**Al**	1	**493.400**	ug/l	493.40	1.0	450000	6	P	
31	**P**	1	**4964.000**	ug/l	4,964.00	0.7	450000	6	P	
39	**K**	1	**4927.000**	ug/l	4,927.00	0.5	450000	45	A	
44	**Ca**	1	**4822.000**	ug/l	4,822.00	1.9	450000	45	P	
47	**Ti**	1	**48.040**	ug/l	48.04	3.5	4500	45	P	
51	**V**	1	**47.070**	ug/l	47.07	2.7	4500	45	P	
52	**Cr**	1	**47.690**	ug/l	47.69	2.5	4500	45	P	
55	**Mn**	1	**47.740**	ug/l	47.74	3.0	4500	45	P	
57	**Fe**	1	**4876.000**	ug/l	4,876.00	2.2	450000	74	A	
59	**Co**	1	**47.540**	ug/l	47.54	1.8	4500	74	P	
60	**Ni**	1	**48.340**	ug/l	48.34	2.5	4500	74	P	
63	**Cu**	1	**48.590**	ug/l	48.59	1.2	4500	74	P	
66	**Zn**	1	**47.190**	ug/l	47.19	1.2	4500	74	P	
75	**As**	1	**47.950**	ug/l	47.95	1.7	4500	74	P	
78	**Se**	1	**47.980**	ug/l	47.98	2.7	4500	74	P	
88	**Sr**	1	**48.010**	ug/l	48.01	1.6	4500	74	P	
95	**Mo**	1	**46.850**	ug/l	46.85	0.9	4500	103	P	
109	**Ag**	1	**47.170**	ug/l	47.17	0.6	4500	103	P	
111	**Cd**	1	**46.960**	ug/l	46.96	1.3	4500	103	P	
118	**Sn**	1	**47.380**	ug/l	47.38	0.5	4500	103	P	
123	**Sb**	1	**47.120**	ug/l	47.12	0.2	4500	103	P	
135	**Ba**	1	**47.170**	ug/l	47.17	0.1	4500	103	P	
200	**Hg**	1	**2.390**	ug/l	2.39	1.9	45	209	P	
205	**Tl**	1	**47.050**	ug/l	47.05	2.4	4500	209	P	
208	**Pb**	1	**47.930**	ug/l	47.93	1.0	4500	209	P	
238	**U**	1	**47.900**	ug/l	47.90	0.8	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66633	1.42	70500	**94.5**	30	-	125	
45	Sc	1	1707223	2.23	1703000	**100.2**	30	-	125	
74	Ge	1	3811869	1.03	3864000	**98.7**	30	-	125	
103	Rh	1	5253093	1.02	5496000	**95.6**	30	-	125	
165	Ho	1	2385308	1.99	2487000	**95.9**	30	-	125	
175	Lu	1	1992099	0.84	2103000	**94.7**	30	-	125	
209	Bi	1	2374771	0.62	2573000	**92.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\128SMPL.D\128SMPL.D#
Date Acquired: Sep 14 2011 01:35 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.004**	ug/l	0.00	247.2	900	6	P	
23	Na	1	**0.226**	ug/l	0.23	243.4	450000	6	P	
24	Mg	1	**0.361**	ug/l	0.36	37.2	450000	6	P	
27	Al	1	**0.347**	ug/l	0.35	31.2	450000	6	P	
31	P	1	**0.456**	ug/l	0.46	79.2	450000	6	P	
39	K	1	**7.917**	ug/l	7.92	14.0	450000	45	P	
44	Ca	1	**0.627**	ug/l	0.63	30.1	450000	45	P	
47	Ti	1	**0.145**	ug/l	0.14	15.6	4500	45	P	
51	V	1	**0.008**	ug/l	0.01	54.5	4500	45	P	
52	Cr	1	**-0.010**	ug/l	-0.01	105.6	4500	45	P	
55	Mn	1	**0.030**	ug/l	0.03	17.3	4500	45	P	
57	Fe	1	**2.259**	ug/l	2.26	28.1	450000	74	P	
59	Co	1	**0.003**	ug/l	0.00	32.6	4500	74	P	
60	Ni	1	**0.013**	ug/l	0.01	16.4	4500	74	P	
63	Cu	1	**0.063**	ug/l	0.06	20.3	4500	74	P	
66	Zn	1	**0.010**	ug/l	0.01	123.0	4500	74	P	
75	As	1	**0.024**	ug/l	0.02	28.7	4500	74	P	
78	Se	1	**0.115**	ug/l	0.12	119.0	4500	74	P	
88	Sr	1	**-0.007**	ug/l	-0.01	74.9	4500	74	P	
95	Mo	1	**0.154**	ug/l	0.15	23.5	4500	103	P	
109	Ag	1	**0.004**	ug/l	0.00	63.1	4500	103	P	
111	Cd	1	**0.019**	ug/l	0.02	41.2	4500	103	P	
118	Sn	1	**0.480**	ug/l	0.48	16.2	4500	103	P	
123	Sb	1	**0.070**	ug/l	0.07	27.2	4500	103	P	
135	Ba	1	**0.010**	ug/l	0.01	70.3	4500	103	P	
200	Hg	1	**0.036**	ug/l	0.04	8.5	45	209	P	
205	Tl	1	**0.418**	ug/l	0.42	9.2	4500	209	P	
208	Pb	1	**0.001**	ug/l	0.00	1166.4	4500	209	P	
238	U	1	**0.010**	ug/l	0.01	8.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64603	0.92	70500	**91.6**	30	-	125	
45	Sc	1	1635087	0.98	1703000	**96.0**	30	-	125	
74	Ge	1	3735307	0.54	3864000	**96.7**	30	-	125	
103	Rh	1	5221440	0.50	5496000	**95.0**	30	-	125	
165	Ho	1	2351439	1.18	2487000	**94.5**	30	-	125	
175	Lu	1	1974750	0.81	2103000	**93.9**	30	-	125	
209	Bi	1	2405280	1.40	2573000	**93.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\129SMPL.D\129SMPL.D#
Date Acquired: Sep 14 2011 01:39 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-B-3-B Vial Number: 2301
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.490**	ug/l	14.90	0.6	900	6	P	
23	**Na**	1	**426.100**	ug/l	4,261.00	0.7	450000	6	A	
24	**Mg**	1	**22460.000**	ug/l	224,600.00	1.6	450000	6	A	
27	**Al**	1	**72290.000**	ug/l	722,900.00	0.8	450000	6	A	
31	**P**	1	**856.200**	ug/l	8,562.00	2.2	450000	6	P	
39	**K**	1	**472.900**	ug/l	4,729.00	1.9	450000	45	M	
44	**Ca**	1	**12820.000**	ug/l	128,200.00	0.7	450000	45	A	
47	**Ti**	1	**5778.000**	ug/l	57,780.00	1.3	4500	45	A	Fail
51	**V**	1	**469.100**	ug/l	4,691.00	0.2	4500	45	A	
52	**Cr**	1	**231.100**	ug/l	2,311.00	0.3	4500	45	A	
55	**Mn**	1	**3797.000**	ug/l	37,970.00	0.3	4500	45	A	
57	**Fe**	1	**140300.000**	ug/l	1,403,000.00	1.4	450000	74	A	
59	**Co**	1	**102.500**	ug/l	1,025.00	0.4	4500	74	A	
60	**Ni**	1	**151.900**	ug/l	1,519.00	1.6	4500	74	P	
63	**Cu**	1	**262.000**	ug/l	2,620.00	1.0	4500	74	A	
66	**Zn**	1	**168.100**	ug/l	1,681.00	1.2	4500	74	P	
75	**As**	1	**1.956**	ug/l	19.56	3.9	4500	74	P	
78	**Se**	1	**2.897**	ug/l	28.97	6.4	4500	74	P	
88	**Sr**	1	**145.200**	ug/l	1,452.00	0.8	4500	74	A	
95	**Mo**	1	**0.385**	ug/l	3.85	1.5	4500	103	P	
109	**Ag**	1	**0.087**	ug/l	0.87	6.2	4500	103	P	
111	**Cd**	1	**0.616**	ug/l	6.16	6.8	4500	103	P	
118	**Sn**	1	**2.755**	ug/l	27.55	3.9	4500	103	P	
123	**Sb**	1	**0.122**	ug/l	1.22	4.2	4500	103	P	
135	**Ba**	1	**300.300**	ug/l	3,003.00	1.8	4500	103	P	
200	**Hg**	1	**0.047**	ug/l	0.47	7.5	45	209	P	
205	**Tl**	1	**0.286**	ug/l	2.86	14.6	4500	209	P	
208	**Pb**	1	**3.413**	ug/l	34.13	0.6	4500	209	P	
238	**U**	1	**0.512**	ug/l	5.12	0.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61392	1.03	70500	**87.1**	30	-	125	
45	Sc	1	1820371	0.21	1703000	**106.9**	30	-	125	
74	Ge	1	3582265	1.31	3864000	**92.7**	30	-	125	
103	Rh	1	4767278	1.17	5496000	**86.7**	30	-	125	
165	Ho	1	2366357	0.34	2487000	**95.1**	30	-	125	
175	Lu	1	1937150	1.39	2103000	**92.1**	30	-	125	
209	Bi	1	2186550	0.59	2573000	**85.0**	30	-	125	

Analytes: Fail **ISTD: Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\130SMPL.D\130SMPL.D#
Date Acquired: Sep 14 2011 01:43 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-B-4-B Vial Number: 2302
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.607**	ug/l	16.07	6.3	900	6	P	
23	**Na**	1	**317.500**	ug/l	3,175.00	1.7	450000	6	P	
24	**Mg**	1	**17890.000**	ug/l	178,900.00	2.7	450000	6	A	
27	**Al**	1	**78350.000**	ug/l	783,500.00	2.2	450000	6	A	
31	**P**	1	**891.800**	ug/l	8,918.00	2.4	450000	6	P	
39	**K**	1	**667.100**	ug/l	6,671.00	3.0	450000	45	A	
44	**Ca**	1	**10460.000**	ug/l	104,600.00	2.5	450000	45	P	
47	**Ti**	1	**8429.000**	ug/l	84,290.00	3.2	4500	45	A	Fail
51	**V**	1	**437.800**	ug/l	4,378.00	2.7	4500	45	A	
52	**Cr**	1	**254.600**	ug/l	2,546.00	2.9	4500	45	A	
55	**Mn**	1	**2513.000**	ug/l	25,130.00	2.3	4500	45	A	
57	**Fe**	1	**155900.000**	ug/l	1,559,000.00	0.3	450000	74	A	
59	**Co**	1	**118.800**	ug/l	1,188.00	2.0	4500	74	A	
60	**Ni**	1	**136.600**	ug/l	1,366.00	1.6	4500	74	P	
63	**Cu**	1	**316.600**	ug/l	3,166.00	1.9	4500	74	A	
66	**Zn**	1	**185.800**	ug/l	1,858.00	1.7	4500	74	P	
75	**As**	1	**1.949**	ug/l	19.49	0.6	4500	74	P	
78	**Se**	1	**2.880**	ug/l	28.80	1.8	4500	74	P	
88	**Sr**	1	**120.300**	ug/l	1,203.00	1.3	4500	74	M	
95	**Mo**	1	**0.499**	ug/l	4.99	9.4	4500	103	P	
109	**Ag**	1	**0.055**	ug/l	0.55	4.6	4500	103	P	
111	**Cd**	1	**0.757**	ug/l	7.57	5.7	4500	103	P	
118	**Sn**	1	**3.252**	ug/l	32.52	4.9	4500	103	P	
123	**Sb**	1	**0.080**	ug/l	0.80	8.4	4500	103	P	
135	**Ba**	1	**358.500**	ug/l	3,585.00	0.9	4500	103	P	
200	**Hg**	1	**0.055**	ug/l	0.55	12.0	45	209	P	
205	**Tl**	1	**0.211**	ug/l	2.11	7.8	4500	209	P	
208	**Pb**	1	**4.287**	ug/l	42.87	2.3	4500	209	P	
238	**U**	1	**0.559**	ug/l	5.59	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63283	0.72	70500	**89.8**	30	-	125	
45	Sc	1	1831400	2.50	1703000	**107.5**	30	-	125	
74	Ge	1	3481838	0.97	3864000	**90.1**	30	-	125	
103	Rh	1	4665024	0.67	5496000	**84.9**	30	-	125	
165	Ho	1	2340007	1.70	2487000	**94.1**	30	-	125	
175	Lu	1	1923629	1.68	2103000	**91.5**	30	-	125	
209	Bi	1	2180321	1.49	2573000	**84.7**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\131SMPL.D\131SMPL.D#
Date Acquired: Sep 14 2011 01:48 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-B-5-B Vial Number: 2303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.638**	ug/l	6.38	14.2	900	6	P	
23	**Na**	1	**921.500**	ug/l	9,215.00	1.1	450000	6	A	
24	**Mg**	1	**7530.000**	ug/l	75,300.00	1.4	450000	6	A	
27	**Al**	1	**20500.000**	ug/l	205,000.00	3.0	450000	6	A	
31	**P**	1	**1679.000**	ug/l	16,790.00	1.8	450000	6	P	
39	**K**	1	**960.100**	ug/l	9,601.00	2.1	450000	45	A	
44	**Ca**	1	**8446.000**	ug/l	84,460.00	0.8	450000	45	P	
47	**Ti**	1	**2731.000**	ug/l	27,310.00	0.4	4500	45	A	
51	**V**	1	**135.300**	ug/l	1,353.00	1.4	4500	45	A	
52	**Cr**	1	**42.180**	ug/l	421.80	0.7	4500	45	P	
55	**Mn**	1	**566.300**	ug/l	5,663.00	0.6	4500	45	A	
57	**Fe**	1	**46900.000**	ug/l	469,000.00	0.2	450000	74	A	
59	**Co**	1	**20.690**	ug/l	206.90	0.4	4500	74	P	
60	**Ni**	1	**53.280**	ug/l	532.80	1.4	4500	74	P	
63	**Cu**	1	**73.800**	ug/l	738.00	1.0	4500	74	P	
66	**Zn**	1	**295.400**	ug/l	2,954.00	0.4	4500	74	P	
75	**As**	1	**4.155**	ug/l	41.55	3.8	4500	74	P	
78	**Se**	1	**1.211**	ug/l	12.11	7.8	4500	74	P	
88	**Sr**	1	**147.800**	ug/l	1,478.00	0.5	4500	74	A	
95	**Mo**	1	**0.589**	ug/l	5.89	1.8	4500	103	P	
109	**Ag**	1	**0.033**	ug/l	0.33	10.7	4500	103	P	
111	**Cd**	1	**0.456**	ug/l	4.56	4.6	4500	103	P	
118	**Sn**	1	**2.337**	ug/l	23.37	2.7	4500	103	P	
123	**Sb**	1	**0.234**	ug/l	2.34	8.1	4500	103	P	
135	**Ba**	1	**188.200**	ug/l	1,882.00	1.1	4500	103	P	
200	**Hg**	1	**0.040**	ug/l	0.40	9.3	45	209	P	
205	**Tl**	1	**0.201**	ug/l	2.01	4.5	4500	209	P	
208	**Pb**	1	**23.650**	ug/l	236.50	2.1	4500	209	P	
238	**U**	1	**0.462**	ug/l	4.62	2.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66915	1.74	70500	**94.9**	30	-	125	
45	Sc	1	1693987	0.81	1703000	**99.5**	30	-	125	
74	Ge	1	3658065	0.44	3864000	**94.7**	30	-	125	
103	Rh	1	4962196	1.38	5496000	**90.3**	30	-	125	
165	Ho	1	2383234	0.34	2487000	**95.8**	30	-	125	
175	Lu	1	1969341	0.98	2103000	**93.6**	30	-	125	
209	Bi	1	2306440	0.99	2573000	**89.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\132SMPL.D\132SMPL.D#
Date Acquired: Sep 14 2011 01:52 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-7-C Vial Number: 2304
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.965**	ug/l	9.65	8.6	900	6	P	
23	**Na**	1	**637.400**	ug/l	6,374.00	3.6	450000	6	A	
24	**Mg**	1	**18260.000**	ug/l	182,600.00	1.1	450000	6	A	
27	**Al**	1	**27170.000**	ug/l	271,700.00	1.5	450000	6	A	
31	**P**	1	**2136.000**	ug/l	21,360.00	2.9	450000	6	P	
39	**K**	1	**1655.000**	ug/l	16,550.00	1.7	450000	45	A	
44	**Ca**	1	**11880.000**	ug/l	118,800.00	1.4	450000	45	P	
47	**Ti**	1	**2756.000**	ug/l	27,560.00	2.5	4500	45	A	
51	**V**	1	**170.400**	ug/l	1,704.00	1.5	4500	45	A	
52	**Cr**	1	**45.910**	ug/l	459.10	2.3	4500	45	P	
55	**Mn**	1	**1426.000**	ug/l	14,260.00	1.4	4500	45	A	
57	**Fe**	1	**79810.000**	ug/l	798,100.00	1.7	450000	74	A	
59	**Co**	1	**38.120**	ug/l	381.20	1.2	4500	74	P	
60	**Ni**	1	**72.480**	ug/l	724.80	0.8	4500	74	P	
63	**Cu**	1	**153.400**	ug/l	1,534.00	1.3	4500	74	A	
66	**Zn**	1	**112.500**	ug/l	1,125.00	0.9	4500	74	P	
75	**As**	1	**6.603**	ug/l	66.03	3.3	4500	74	P	
78	**Se**	1	**1.603**	ug/l	16.03	2.6	4500	74	P	
88	**Sr**	1	**92.890**	ug/l	928.90	1.9	4500	74	P	
95	**Mo**	1	**0.723**	ug/l	7.23	5.0	4500	103	P	
109	**Ag**	1	**0.061**	ug/l	0.61	11.8	4500	103	P	
111	**Cd**	1	**0.735**	ug/l	7.35	4.8	4500	103	P	
118	**Sn**	1	**3.099**	ug/l	30.99	3.2	4500	103	P	
123	**Sb**	1	**0.190**	ug/l	1.90	3.9	4500	103	P	
135	**Ba**	1	**164.400**	ug/l	1,644.00	1.2	4500	103	P	
200	**Hg**	1	**0.041**	ug/l	0.41	1.7	45	209	P	
205	**Tl**	1	**0.235**	ug/l	2.35	4.5	4500	209	P	
208	**Pb**	1	**15.160**	ug/l	151.60	2.3	4500	209	P	
238	**U**	1	**0.574**	ug/l	5.74	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65522	2.01	70500	**92.9**	30	-	125	
45	Sc	1	1689208	1.93	1703000	**99.2**	30	-	125	
74	Ge	1	3655644	0.72	3864000	**94.6**	30	-	125	
103	Rh	1	4921124	0.55	5496000	**89.5**	30	-	125	
165	Ho	1	2366431	0.36	2487000	**95.2**	30	-	125	
175	Lu	1	1943236	0.87	2103000	**92.4**	30	-	125	
209	Bi	1	2286446	1.48	2573000	**88.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\133SMPL.D\133SMPL.D#
Date Acquired: Sep 14 2011 01:56 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-8-D Vial Number: 2305
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.730**	ug/l	7.30	9.2	900	6	P	
23	**Na**	1	**623.600**	ug/l	6,236.00	2.1	450000	6	A	
24	**Mg**	1	**14480.000**	ug/l	144,800.00	0.5	450000	6	A	
27	**Al**	1	**24290.000**	ug/l	242,900.00	1.6	450000	6	A	
31	**P**	1	**1641.000**	ug/l	16,410.00	2.1	450000	6	P	
39	**K**	1	**1712.000**	ug/l	17,120.00	2.2	450000	45	A	
44	**Ca**	1	**9781.000**	ug/l	97,810.00	1.6	450000	45	P	
47	**Ti**	1	**2741.000**	ug/l	27,410.00	2.7	4500	45	A	
51	**V**	1	**146.600**	ug/l	1,466.00	1.6	4500	45	A	
52	**Cr**	1	**38.950**	ug/l	389.50	1.8	4500	45	P	
55	**Mn**	1	**932.600**	ug/l	9,326.00	1.8	4500	45	A	
57	**Fe**	1	**67730.000**	ug/l	677,300.00	1.4	450000	74	A	
59	**Co**	1	**31.760**	ug/l	317.60	1.0	4500	74	P	
60	**Ni**	1	**56.470**	ug/l	564.70	1.3	4500	74	P	
63	**Cu**	1	**121.900**	ug/l	1,219.00	1.7	4500	74	M	
66	**Zn**	1	**100.500**	ug/l	1,005.00	1.6	4500	74	P	
75	**As**	1	**5.715**	ug/l	57.15	1.8	4500	74	P	
78	**Se**	1	**1.388**	ug/l	13.88	6.2	4500	74	P	
88	**Sr**	1	**104.600**	ug/l	1,046.00	1.1	4500	74	P	
95	**Mo**	1	**0.664**	ug/l	6.64	7.3	4500	103	P	
109	**Ag**	1	**0.059**	ug/l	0.59	15.5	4500	103	P	
111	**Cd**	1	**0.519**	ug/l	5.19	10.1	4500	103	P	
118	**Sn**	1	**2.503**	ug/l	25.03	1.7	4500	103	P	
123	**Sb**	1	**0.177**	ug/l	1.77	6.9	4500	103	P	
135	**Ba**	1	**153.300**	ug/l	1,533.00	0.1	4500	103	P	
200	**Hg**	1	**0.057**	ug/l	0.57	5.6	45	209	P	
205	**Tl**	1	**0.191**	ug/l	1.91	10.9	4500	209	P	
208	**Pb**	1	**12.950**	ug/l	129.50	1.0	4500	209	P	
238	**U**	1	**0.502**	ug/l	5.02	0.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67115	1.05	70500	**95.2**	30	-	125	
45	Sc	1	1747587	2.10	1703000	**102.6**	30	-	125	
74	Ge	1	3699932	1.25	3864000	**95.8**	30	-	125	
103	Rh	1	4983059	1.01	5496000	**90.7**	30	-	125	
165	Ho	1	2375358	1.73	2487000	**95.5**	30	-	125	
175	Lu	1	1987745	1.26	2103000	**94.5**	30	-	125	
209	Bi	1	2274951	1.04	2573000	**88.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\134SMPL.D\134SMPL.D#
Date Acquired: Sep 14 2011 02:00 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-9-C Vial Number: 2306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.518**	ug/l	15.18	1.0	900	6	P	
23	**Na**	1	**334.900**	ug/l	3,349.00	1.3	450000	6	A	
24	**Mg**	1	**12150.000**	ug/l	121,500.00	1.0	450000	6	A	
27	**Al**	1	**39570.000**	ug/l	395,700.00	0.7	450000	6	A	
31	**P**	1	**1392.000**	ug/l	13,920.00	1.4	450000	6	P	
39	**K**	1	**2682.000**	ug/l	26,820.00	1.9	450000	45	A	
44	**Ca**	1	**9191.000**	ug/l	91,910.00	0.5	450000	45	P	
47	**Ti**	1	**2744.000**	ug/l	27,440.00	2.2	4500	45	A	
51	**V**	1	**132.900**	ug/l	1,329.00	1.4	4500	45	A	
52	**Cr**	1	**41.390**	ug/l	413.90	1.0	4500	45	P	
55	**Mn**	1	**1206.000**	ug/l	12,060.00	0.8	4500	45	A	
57	**Fe**	1	**67320.000**	ug/l	673,200.00	0.3	450000	74	A	
59	**Co**	1	**26.990**	ug/l	269.90	0.9	4500	74	P	
60	**Ni**	1	**44.370**	ug/l	443.70	1.1	4500	74	P	
63	**Cu**	1	**51.210**	ug/l	512.10	0.9	4500	74	P	
66	**Zn**	1	**131.000**	ug/l	1,310.00	0.3	4500	74	P	
75	**As**	1	**12.030**	ug/l	120.30	2.0	4500	74	P	
78	**Se**	1	**1.790**	ug/l	17.90	0.6	4500	74	P	
88	**Sr**	1	**96.660**	ug/l	966.60	0.7	4500	74	P	
95	**Mo**	1	**0.676**	ug/l	6.76	2.1	4500	103	P	
109	**Ag**	1	**0.086**	ug/l	0.86	4.4	4500	103	P	
111	**Cd**	1	**0.640**	ug/l	6.40	10.9	4500	103	P	
118	**Sn**	1	**2.492**	ug/l	24.92	0.8	4500	103	P	
123	**Sb**	1	**0.342**	ug/l	3.42	6.6	4500	103	P	
135	**Ba**	1	**347.500**	ug/l	3,475.00	1.6	4500	103	P	
200	**Hg**	1	**0.074**	ug/l	0.74	5.0	45	209	P	
205	**Tl**	1	**0.413**	ug/l	4.13	4.7	4500	209	P	
208	**Pb**	1	**20.620**	ug/l	206.20	1.5	4500	209	P	
238	**U**	1	**1.440**	ug/l	14.40	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67927	0.29	70500	**96.3**	30	-	125	
45	Sc	1	1716176	0.95	1703000	**100.8**	30	-	125	
74	Ge	1	3617979	0.29	3864000	**93.6**	30	-	125	
103	Rh	1	4813150	1.27	5496000	**87.6**	30	-	125	
165	Ho	1	2348157	1.41	2487000	**94.4**	30	-	125	
175	Lu	1	1945424	1.56	2103000	**92.5**	30	-	125	
209	Bi	1	2264308	1.08	2573000	**88.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\135SMPL.D\135SMPL.D#
Date Acquired: Sep 14 2011 02:05 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-10-B Vial Number: 2307
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.564**	ug/l	15.64	3.3	900	6	P	
23	**Na**	1	**348.200**	ug/l	3,482.00	3.0	450000	6	A	
24	**Mg**	1	**12330.000**	ug/l	123,300.00	1.7	450000	6	A	
27	**Al**	1	**40950.000**	ug/l	409,500.00	2.5	450000	6	A	
31	**P**	1	**1368.000**	ug/l	13,680.00	0.2	450000	6	P	
39	**K**	1	**2749.000**	ug/l	27,490.00	1.3	450000	45	A	
44	**Ca**	1	**9110.000**	ug/l	91,100.00	2.5	450000	45	P	
47	**Ti**	1	**2784.000**	ug/l	27,840.00	3.1	4500	45	A	
51	**V**	1	**134.500**	ug/l	1,345.00	1.8	4500	45	A	
52	**Cr**	1	**40.610**	ug/l	406.10	3.1	4500	45	P	
55	**Mn**	1	**1303.000**	ug/l	13,030.00	2.5	4500	45	A	
57	**Fe**	1	**69150.000**	ug/l	691,500.00	1.2	450000	74	A	
59	**Co**	1	**30.650**	ug/l	306.50	1.1	4500	74	P	
60	**Ni**	1	**46.590**	ug/l	465.90	0.8	4500	74	P	
63	**Cu**	1	**52.090**	ug/l	520.90	1.4	4500	74	P	
66	**Zn**	1	**139.800**	ug/l	1,398.00	0.6	4500	74	P	
75	**As**	1	**12.530**	ug/l	125.30	3.2	4500	74	P	
78	**Se**	1	**1.827**	ug/l	18.27	6.4	4500	74	P	
88	**Sr**	1	**98.280**	ug/l	982.80	0.7	4500	74	P	
95	**Mo**	1	**0.721**	ug/l	7.21	5.8	4500	103	P	
109	**Ag**	1	**0.088**	ug/l	0.88	2.2	4500	103	P	
111	**Cd**	1	**0.672**	ug/l	6.72	10.2	4500	103	P	
118	**Sn**	1	**2.623**	ug/l	26.23	1.6	4500	103	P	
123	**Sb**	1	**0.372**	ug/l	3.72	9.2	4500	103	P	
135	**Ba**	1	**355.100**	ug/l	3,551.00	1.5	4500	103	P	
200	**Hg**	1	**0.070**	ug/l	0.70	9.0	45	209	P	
205	**Tl**	1	**0.412**	ug/l	4.12	3.2	4500	209	P	
208	**Pb**	1	**20.920**	ug/l	209.20	2.0	4500	209	P	
238	**U**	1	**1.490**	ug/l	14.90	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	67661	1.14	70500	**96.0**	30 - 125	
45	Sc	1	1738445	2.33	1703000	**102.1**	30 - 125	
74	Ge	1	3554089	0.70	3864000	**92.0**	30 - 125	
103	Rh	1	4803894	1.15	5496000	**87.4**	30 - 125	
165	Ho	1	2317720	0.55	2487000	**93.2**	30 - 125	
175	Lu	1	1919615	0.41	2103000	**91.3**	30 - 125	
209	Bi	1	2253605	1.39	2573000	**87.6**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\136SMPL.D\136SMPL.D#
Date Acquired: Sep 14 2011 02:09 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-11-B Vial Number: 2308
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.679**	ug/l	16.79	1.6	900	6	P	
23	**Na**	1	**383.700**	ug/l	3,837.00	2.6	450000	6	A	
24	**Mg**	1	**13070.000**	ug/l	130,700.00	0.7	450000	6	A	
27	**Al**	1	**37160.000**	ug/l	371,600.00	0.8	450000	6	A	
31	**P**	1	**1490.000**	ug/l	14,900.00	0.6	450000	6	P	
39	**K**	1	**2813.000**	ug/l	28,130.00	2.1	450000	45	A	
44	**Ca**	1	**10070.000**	ug/l	100,700.00	1.7	450000	45	P	
47	**Ti**	1	**2873.000**	ug/l	28,730.00	0.8	4500	45	A	
51	**V**	1	**141.500**	ug/l	1,415.00	3.0	4500	45	A	
52	**Cr**	1	**38.530**	ug/l	385.30	2.5	4500	45	P	
55	**Mn**	1	**1446.000**	ug/l	14,460.00	2.1	4500	45	A	
57	**Fe**	1	**72030.000**	ug/l	720,300.00	0.9	450000	74	A	
59	**Co**	1	**31.740**	ug/l	317.40	1.4	4500	74	P	
60	**Ni**	1	**47.110**	ug/l	471.10	2.7	4500	74	P	
63	**Cu**	1	**55.900**	ug/l	559.00	2.4	4500	74	P	
66	**Zn**	1	**144.500**	ug/l	1,445.00	1.6	4500	74	P	
75	**As**	1	**12.610**	ug/l	126.10	1.6	4500	74	P	
78	**Se**	1	**2.041**	ug/l	20.41	3.1	4500	74	P	
88	**Sr**	1	**105.900**	ug/l	1,059.00	1.7	4500	74	P	
95	**Mo**	1	**0.747**	ug/l	7.47	6.7	4500	103	P	
109	**Ag**	1	**0.107**	ug/l	1.07	8.2	4500	103	P	
111	**Cd**	1	**0.670**	ug/l	6.70	7.6	4500	103	P	
118	**Sn**	1	**2.587**	ug/l	25.87	2.7	4500	103	P	
123	**Sb**	1	**0.392**	ug/l	3.92	4.4	4500	103	P	
135	**Ba**	1	**380.800**	ug/l	3,808.00	1.2	4500	103	P	
200	**Hg**	1	**0.076**	ug/l	0.76	5.1	45	209	P	
205	**Tl**	1	**0.425**	ug/l	4.25	3.4	4500	209	P	
208	**Pb**	1	**23.050**	ug/l	230.50	1.8	4500	209	P	
238	**U**	1	**1.450**	ug/l	14.50	0.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67694	0.63	70500	**96.0**	30	-	125	
45	Sc	1	1719508	2.13	1703000	**101.0**	30	-	125	
74	Ge	1	3564753	1.68	3864000	**92.3**	30	-	125	
103	Rh	1	4816815	1.06	5496000	**87.6**	30	-	125	
165	Ho	1	2313827	1.34	2487000	**93.0**	30	-	125	
175	Lu	1	1926446	1.02	2103000	**91.6**	30	-	125	
209	Bi	1	2252413	1.51	2573000	**87.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\137SMPL.D\137SMPL.D#
Date Acquired: Sep 14 2011 02:13 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-13-B Vial Number: 2309
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.761**	ug/l	17.61	5.3	900	6	P	
23	**Na**	1	**360.500**	ug/l	3,605.00	2.6	450000	6	A	
24	**Mg**	1	**13280.000**	ug/l	132,800.00	0.2	450000	6	A	
27	**Al**	1	**39800.000**	ug/l	398,000.00	0.5	450000	6	A	
31	**P**	1	**1601.000**	ug/l	16,010.00	0.3	450000	6	P	
39	**K**	1	**2541.000**	ug/l	25,410.00	1.9	450000	45	A	
44	**Ca**	1	**9991.000**	ug/l	99,910.00	0.3	450000	45	P	
47	**Ti**	1	**2966.000**	ug/l	29,660.00	2.5	4500	45	A	
51	**V**	1	**150.500**	ug/l	1,505.00	0.9	4500	45	A	
52	**Cr**	1	**42.470**	ug/l	424.70	0.8	4500	45	P	
55	**Mn**	1	**1408.000**	ug/l	14,080.00	1.1	4500	45	A	
57	**Fe**	1	**75520.000**	ug/l	755,200.00	2.0	450000	74	A	
59	**Co**	1	**32.560**	ug/l	325.60	1.6	4500	74	P	
60	**Ni**	1	**48.510**	ug/l	485.10	1.5	4500	74	P	
63	**Cu**	1	**59.690**	ug/l	596.90	1.6	4500	74	P	
66	**Zn**	1	**141.500**	ug/l	1,415.00	0.8	4500	74	P	
75	**As**	1	**14.170**	ug/l	141.70	1.0	4500	74	P	
78	**Se**	1	**2.021**	ug/l	20.21	7.9	4500	74	P	
88	**Sr**	1	**105.900**	ug/l	1,059.00	1.2	4500	74	P	
95	**Mo**	1	**0.808**	ug/l	8.08	2.0	4500	103	P	
109	**Ag**	1	**0.116**	ug/l	1.16	9.7	4500	103	P	
111	**Cd**	1	**0.614**	ug/l	6.14	10.9	4500	103	P	
118	**Sn**	1	**2.400**	ug/l	24.00	2.7	4500	103	P	
123	**Sb**	1	**0.409**	ug/l	4.09	3.9	4500	103	P	
135	**Ba**	1	**383.400**	ug/l	3,834.00	0.4	4500	103	P	
200	**Hg**	1	**0.076**	ug/l	0.76	7.0	45	209	P	
205	**Tl**	1	**0.385**	ug/l	3.85	2.3	4500	209	P	
208	**Pb**	1	**23.470**	ug/l	234.70	1.1	4500	209	P	
238	**U**	1	**1.440**	ug/l	14.40	0.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66613	0.96	70500	**94.5**	30	-	125	
45	Sc	1	1712990	0.50	1703000	**100.6**	30	-	125	
74	Ge	1	3550272	1.12	3864000	**91.9**	30	-	125	
103	Rh	1	4776706	0.20	5496000	**86.9**	30	-	125	
165	Ho	1	2328045	2.05	2487000	**93.6**	30	-	125	
175	Lu	1	1928408	1.01	2103000	**91.7**	30	-	125	
209	Bi	1	2243017	0.61	2573000	**87.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\138SMPL.D\138SMPL.D#
Date Acquired: Sep 14 2011 02:17 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-14-B Vial Number: 2310
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.803**	ug/l	18.03	4.3	900	6	P	
23	**Na**	1	**118.300**	ug/l	1,183.00	1.9	450000	6	P	
24	**Mg**	1	**8894.000**	ug/l	88,940.00	0.7	450000	6	A	
27	**Al**	1	**36580.000**	ug/l	365,800.00	1.5	450000	6	A	
31	**P**	1	**1926.000**	ug/l	19,260.00	1.0	450000	6	P	
39	**K**	1	**4041.000**	ug/l	40,410.00	0.5	450000	45	A	
44	**Ca**	1	**6725.000**	ug/l	67,250.00	0.6	450000	45	P	
47	**Ti**	1	**3360.000**	ug/l	33,600.00	1.1	4500	45	A	
51	**V**	1	**179.700**	ug/l	1,797.00	1.0	4500	45	A	
52	**Cr**	1	**50.830**	ug/l	508.30	0.5	4500	45	P	
55	**Mn**	1	**1044.000**	ug/l	10,440.00	0.4	4500	45	A	
57	**Fe**	1	**63410.000**	ug/l	634,100.00	1.6	450000	74	A	
59	**Co**	1	**31.240**	ug/l	312.40	0.8	4500	74	P	
60	**Ni**	1	**31.830**	ug/l	318.30	0.8	4500	74	P	
63	**Cu**	1	**41.450**	ug/l	414.50	0.5	4500	74	P	
66	**Zn**	1	**201.200**	ug/l	2,012.00	0.6	4500	74	P	
75	**As**	1	**13.340**	ug/l	133.40	0.3	4500	74	P	
78	**Se**	1	**2.240**	ug/l	22.40	5.9	4500	74	P	
88	**Sr**	1	**66.000**	ug/l	660.00	0.8	4500	74	P	
95	**Mo**	1	**0.791**	ug/l	7.91	2.3	4500	103	P	
109	**Ag**	1	**0.159**	ug/l	1.59	5.1	4500	103	P	
111	**Cd**	1	**0.791**	ug/l	7.91	14.0	4500	103	P	
118	**Sn**	1	**3.160**	ug/l	31.60	2.0	4500	103	P	
123	**Sb**	1	**0.437**	ug/l	4.37	1.7	4500	103	P	
135	**Ba**	1	**316.900**	ug/l	3,169.00	1.8	4500	103	P	
200	**Hg**	1	**0.082**	ug/l	0.82	7.0	45	209	P	
205	**Tl**	1	**0.421**	ug/l	4.21	6.8	4500	209	P	
208	**Pb**	1	**51.840**	ug/l	518.40	1.5	4500	209	P	
238	**U**	1	**1.766**	ug/l	17.66	0.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68826	1.66	70500	**97.6**	30	-	125	
45	Sc	1	1677837	0.85	1703000	**98.5**	30	-	125	
74	Ge	1	3536176	0.47	3864000	**91.5**	30	-	125	
103	Rh	1	4787018	0.72	5496000	**87.1**	30	-	125	
165	Ho	1	2327434	0.71	2487000	**93.6**	30	-	125	
175	Lu	1	1921408	0.84	2103000	**91.4**	30	-	125	
209	Bi	1	2240841	0.60	2573000	**87.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\139SMPL.D\139SMPL.D#
Date Acquired: Sep 14 2011 02:22 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.960**	ug/l	46.96	1.1	900	6	P	
23	**Na**	1	**4704.000**	ug/l	4,704.00	1.7	450000	6	A	
24	**Mg**	1	**4700.000**	ug/l	4,700.00	1.6	450000	6	A	
27	**Al**	1	**479.900**	ug/l	479.90	1.6	450000	6	P	
31	**P**	1	**4637.000**	ug/l	4,637.00	1.8	450000	6	P	
39	**K**	1	**4940.000**	ug/l	4,940.00	1.7	450000	45	A	
44	**Ca**	1	**4814.000**	ug/l	4,814.00	1.6	450000	45	P	
47	**Ti**	1	**49.070**	ug/l	49.07	0.8	4500	45	P	
51	**V**	1	**46.940**	ug/l	46.94	1.8	4500	45	P	
52	**Cr**	1	**46.650**	ug/l	46.65	2.8	4500	45	P	
55	**Mn**	1	**47.660**	ug/l	47.66	2.2	4500	45	P	
57	**Fe**	1	**4953.000**	ug/l	4,953.00	1.0	450000	74	A	
59	**Co**	1	**47.530**	ug/l	47.53	1.3	4500	74	P	
60	**Ni**	1	**48.220**	ug/l	48.22	1.3	4500	74	P	
63	**Cu**	1	**48.260**	ug/l	48.26	1.3	4500	74	P	
66	**Zn**	1	**46.910**	ug/l	46.91	1.7	4500	74	P	
75	**As**	1	**47.110**	ug/l	47.11	0.6	4500	74	P	
78	**Se**	1	**47.850**	ug/l	47.85	0.6	4500	74	P	
88	**Sr**	1	**47.780**	ug/l	47.78	0.5	4500	74	P	
95	**Mo**	1	**47.420**	ug/l	47.42	0.9	4500	103	P	
109	**Ag**	1	**47.610**	ug/l	47.61	0.7	4500	103	P	
111	**Cd**	1	**47.780**	ug/l	47.78	0.6	4500	103	P	
118	**Sn**	1	**48.200**	ug/l	48.20	0.6	4500	103	P	
123	**Sb**	1	**47.630**	ug/l	47.63	0.8	4500	103	P	
135	**Ba**	1	**47.970**	ug/l	47.97	0.6	4500	103	P	
200	**Hg**	1	**2.342**	ug/l	2.34	1.2	45	209	P	
205	**Tl**	1	**45.720**	ug/l	45.72	2.2	4500	209	P	
208	**Pb**	1	**47.450**	ug/l	47.45	1.2	4500	209	P	
238	**U**	1	**47.780**	ug/l	47.78	0.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71269	0.68	70500	**101.1**	30	-	125	
45	Sc	1	1700744	2.30	1703000	**99.9**	30	-	125	
74	Ge	1	3714157	0.58	3864000	**96.1**	30	-	125	
103	Rh	1	4996947	0.46	5496000	**90.9**	30	-	125	
165	Ho	1	2314114	1.56	2487000	**93.0**	30	-	125	
175	Lu	1	1946293	1.47	2103000	**92.5**	30	-	125	
209	Bi	1	2337016	0.74	2573000	**90.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\140SMPL.D\140SMPL.D#
Date Acquired: Sep 14 2011 02:26 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.00	208.0	900	6	P	
23	**Na**	1	**-11.660**	ug/l	-11.66	1.0	450000	6	P	
24	**Mg**	1	**0.960**	ug/l	0.96	5.0	450000	6	P	
27	**Al**	1	**1.383**	ug/l	1.38	4.8	450000	6	P	
31	**P**	1	**0.222**	ug/l	0.22	579.2	450000	6	P	
39	**K**	1	**7.680**	ug/l	7.68	46.7	450000	45	P	
44	**Ca**	1	**0.631**	ug/l	0.63	107.3	450000	45	P	
47	**Ti**	1	**0.372**	ug/l	0.37	7.0	4500	45	P	
51	**V**	1	**0.018**	ug/l	0.02	134.5	4500	45	P	
52	**Cr**	1	**-0.002**	ug/l	0.00	317.4	4500	45	P	
55	**Mn**	1	**0.166**	ug/l	0.17	12.7	4500	45	P	
57	**Fe**	1	**4.949**	ug/l	4.95	1.2	450000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	73.0	4500	74	P	
60	**Ni**	1	**0.005**	ug/l	0.01	165.4	4500	74	P	
63	**Cu**	1	**0.017**	ug/l	0.02	91.1	4500	74	P	
66	**Zn**	1	**0.010**	ug/l	0.01	176.6	4500	74	P	
75	**As**	1	**0.009**	ug/l	0.01	145.3	4500	74	P	
78	**Se**	1	**0.101**	ug/l	0.10	47.5	4500	74	P	
88	**Sr**	1	**0.011**	ug/l	0.01	88.7	4500	74	P	
95	**Mo**	1	**0.084**	ug/l	0.08	31.8	4500	103	P	
109	**Ag**	1	**0.005**	ug/l	0.01	35.0	4500	103	P	
111	**Cd**	1	**0.017**	ug/l	0.02	32.7	4500	103	P	
118	**Sn**	1	**0.162**	ug/l	0.16	18.3	4500	103	P	
123	**Sb**	1	**0.047**	ug/l	0.05	35.0	4500	103	P	
135	**Ba**	1	**0.018**	ug/l	0.02	58.8	4500	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	21.9	45	209	P	
205	**Tl**	1	**0.265**	ug/l	0.26	5.1	4500	209	P	
208	**Pb**	1	**0.014**	ug/l	0.01	70.4	4500	209	P	
238	**U**	1	**0.010**	ug/l	0.01	10.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70789	0.18	70500	**100.4**	30	-	125	
45	Sc	1	1701220	2.97	1703000	**99.9**	30	-	125	
74	Ge	1	3714890	1.11	3864000	**96.1**	30	-	125	
103	Rh	1	5148123	0.27	5496000	**93.7**	30	-	125	
165	Ho	1	2341355	1.33	2487000	**94.1**	30	-	125	
175	Lu	1	1964148	0.84	2103000	**93.4**	30	-	125	
209	Bi	1	2400741	1.91	2573000	**93.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\141SMPL.D\141SMPL.D#
Date Acquired: Sep 14 2011 02:30 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-15-B Vial Number: 2401
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.119**	ug/l	21.19	1.4	900	6	P	
23	**Na**	1	**152.100**	ug/l	1,521.00	2.8	450000	6	P	
24	**Mg**	1	**10520.000**	ug/l	105,200.00	0.5	450000	6	A	
27	**Al**	1	**43390.000**	ug/l	433,900.00	1.0	450000	6	A	
31	**P**	1	**1090.000**	ug/l	10,900.00	0.8	450000	6	P	
39	**K**	1	**2729.000**	ug/l	27,290.00	2.8	450000	45	A	
44	**Ca**	1	**7350.000**	ug/l	73,500.00	1.4	450000	45	P	
47	**Ti**	1	**3048.000**	ug/l	30,480.00	1.7	4500	45	A	
51	**V**	1	**203.000**	ug/l	2,030.00	1.5	4500	45	A	
52	**Cr**	1	**55.850**	ug/l	558.50	2.0	4500	45	P	
55	**Mn**	1	**2343.000**	ug/l	23,430.00	1.3	4500	45	A	
57	**Fe**	1	**71420.000**	ug/l	714,200.00	1.0	450000	74	A	
59	**Co**	1	**51.390**	ug/l	513.90	1.4	4500	74	P	
60	**Ni**	1	**39.260**	ug/l	392.60	2.8	4500	74	P	
63	**Cu**	1	**47.900**	ug/l	479.00	2.8	4500	74	P	
66	**Zn**	1	**134.900**	ug/l	1,349.00	2.7	4500	74	P	
75	**As**	1	**18.490**	ug/l	184.90	3.0	4500	74	P	
78	**Se**	1	**2.643**	ug/l	26.43	5.5	4500	74	P	
88	**Sr**	1	**71.470**	ug/l	714.70	2.3	4500	74	P	
95	**Mo**	1	**0.897**	ug/l	8.97	1.4	4500	103	P	
109	**Ag**	1	**0.105**	ug/l	1.05	4.9	4500	103	P	
111	**Cd**	1	**0.654**	ug/l	6.54	2.3	4500	103	P	
118	**Sn**	1	**2.590**	ug/l	25.90	0.6	4500	103	P	
123	**Sb**	1	**0.571**	ug/l	5.71	2.2	4500	103	P	
135	**Ba**	1	**402.600**	ug/l	4,026.00	1.6	4500	103	P	
200	**Hg**	1	**0.059**	ug/l	0.59	17.2	45	209	P	
205	**Tl**	1	**0.529**	ug/l	5.29	7.8	4500	209	P	
208	**Pb**	1	**30.950**	ug/l	309.50	1.9	4500	209	P	
238	**U**	1	**2.203**	ug/l	22.03	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66713	0.49	70500	**94.6**	30	-	125	
45	Sc	1	1712926	1.80	1703000	**100.6**	30	-	125	
74	Ge	1	3561065	1.69	3864000	**92.2**	30	-	125	
103	Rh	1	4734285	0.96	5496000	**86.1**	30	-	125	
165	Ho	1	2350125	0.73	2487000	**94.5**	30	-	125	
175	Lu	1	1937652	0.47	2103000	**92.1**	30	-	125	
209	Bi	1	2243426	1.08	2573000	**87.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\142SMPL.D\142SMPL.D#
Date Acquired: Sep 14 2011 02:35 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-16-B Vial Number: 2402
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.635**	ug/l	16.35	4.4	900	6	P	
23	Na	1	**404.900**	ug/l	4,049.00	2.1	450000	6	A	
24	Mg	1	**13220.000**	ug/l	132,200.00	1.6	450000	6	A	
27	Al	1	**39560.000**	ug/l	395,600.00	0.3	450000	6	A	
31	P	1	**1436.000**	ug/l	14,360.00	1.7	450000	6	P	
39	K	1	**3086.000**	ug/l	30,860.00	2.3	450000	45	A	
44	Ca	1	**9710.000**	ug/l	97,100.00	1.0	450000	45	P	
47	Ti	1	**2602.000**	ug/l	26,020.00	1.2	4500	45	A	
51	V	1	**136.500**	ug/l	1,365.00	0.8	4500	45	A	
52	Cr	1	**48.550**	ug/l	485.50	2.1	4500	45	P	
55	Mn	1	**1253.000**	ug/l	12,530.00	2.0	4500	45	A	
57	Fe	1	**67910.000**	ug/l	679,100.00	0.6	450000	74	A	
59	Co	1	**29.840**	ug/l	298.40	1.3	4500	74	P	
60	Ni	1	**48.280**	ug/l	482.80	1.7	4500	74	P	
63	Cu	1	**53.580**	ug/l	535.80	1.8	4500	74	P	
66	Zn	1	**137.500**	ug/l	1,375.00	1.3	4500	74	P	
75	As	1	**15.410**	ug/l	154.10	1.8	4500	74	P	
78	Se	1	**1.745**	ug/l	17.45	1.1	4500	74	P	
88	Sr	1	**97.170**	ug/l	971.70	1.6	4500	74	P	
95	Mo	1	**0.785**	ug/l	7.85	11.9	4500	103	P	
109	Ag	1	**0.098**	ug/l	0.98	6.2	4500	103	P	
111	Cd	1	**0.577**	ug/l	5.77	2.7	4500	103	P	
118	Sn	1	**2.421**	ug/l	24.21	4.5	4500	103	P	
123	Sb	1	**0.417**	ug/l	4.17	5.6	4500	103	P	
135	Ba	1	**357.600**	ug/l	3,576.00	2.4	4500	103	P	
200	Hg	1	**0.058**	ug/l	0.58	22.8	45	209	P	
205	Tl	1	**0.436**	ug/l	4.36	4.4	4500	209	P	
208	Pb	1	**24.060**	ug/l	240.60	2.7	4500	209	P	
238	U	1	**1.737**	ug/l	17.37	3.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67498	1.47	70500	**95.7**	30	-	125	
45	Sc	1	1707276	1.80	1703000	**100.3**	30	-	125	
74	Ge	1	3598354	1.37	3864000	**93.1**	30	-	125	
103	Rh	1	4753639	2.75	5496000	**86.5**	30	-	125	
165	Ho	1	2278036	1.23	2487000	**91.6**	30	-	125	
175	Lu	1	1930632	0.68	2103000	**91.8**	30	-	125	
209	Bi	1	2228178	2.11	2573000	**86.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\143SMPL.D\143SMPL.D#
Date Acquired: Sep 14 2011 02:39 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-17-B Vial Number: 2403
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.257**	ug/l	12.57	1.9	900	6	P	
23	**Na**	1	**539.300**	ug/l	5,393.00	2.0	450000	6	A	
24	**Mg**	1	**12550.000**	ug/l	125,500.00	1.4	450000	6	A	
27	**Al**	1	**30180.000**	ug/l	301,800.00	0.4	450000	6	A	
31	**P**	1	**1396.000**	ug/l	13,960.00	0.8	450000	6	P	
39	**K**	1	**2783.000**	ug/l	27,830.00	3.9	450000	45	A	
44	**Ca**	1	**8885.000**	ug/l	88,850.00	2.4	450000	45	P	
47	**Ti**	1	**2285.000**	ug/l	22,850.00	2.1	4500	45	P	
51	**V**	1	**122.700**	ug/l	1,227.00	1.7	4500	45	A	
52	**Cr**	1	**39.890**	ug/l	398.90	2.6	4500	45	P	
55	**Mn**	1	**1257.000**	ug/l	12,570.00	2.2	4500	45	A	
57	**Fe**	1	**61450.000**	ug/l	614,500.00	0.7	450000	74	A	
59	**Co**	1	**26.870**	ug/l	268.70	0.6	4500	74	P	
60	**Ni**	1	**44.830**	ug/l	448.30	0.9	4500	74	P	
63	**Cu**	1	**50.450**	ug/l	504.50	0.9	4500	74	P	
66	**Zn**	1	**124.900**	ug/l	1,249.00	1.0	4500	74	P	
75	**As**	1	**14.540**	ug/l	145.40	1.3	4500	74	P	
78	**Se**	1	**1.581**	ug/l	15.81	2.4	4500	74	P	
88	**Sr**	1	**82.940**	ug/l	829.40	0.8	4500	74	P	
95	**Mo**	1	**0.762**	ug/l	7.62	8.6	4500	103	P	
109	**Ag**	1	**0.082**	ug/l	0.82	5.5	4500	103	P	
111	**Cd**	1	**0.508**	ug/l	5.08	13.0	4500	103	P	
118	**Sn**	1	**2.227**	ug/l	22.27	1.7	4500	103	P	
123	**Sb**	1	**0.459**	ug/l	4.59	1.2	4500	103	P	
135	**Ba**	1	**302.200**	ug/l	3,022.00	2.0	4500	103	P	
200	**Hg**	1	**0.056**	ug/l	0.56	17.2	45	209	P	
205	**Tl**	1	**0.379**	ug/l	3.79	1.8	4500	209	P	
208	**Pb**	1	**22.160**	ug/l	221.60	2.9	4500	209	P	
238	**U**	1	**1.476**	ug/l	14.76	2.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67455	0.21	70500	**95.7**	30	-	125	
45	Sc	1	1717877	1.66	1703000	**100.9**	30	-	125	
74	Ge	1	3612276	0.44	3864000	**93.5**	30	-	125	
103	Rh	1	4762289	2.03	5496000	**86.7**	30	-	125	
165	Ho	1	2321353	0.80	2487000	**93.3**	30	-	125	
175	Lu	1	1941672	1.97	2103000	**92.3**	30	-	125	
209	Bi	1	2223764	2.08	2573000	**86.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\144SMPL.D\144SMPL.D#
Date Acquired: Sep 14 2011 02:43 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-18-B Vial Number: 2404
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.605**	ug/l	16.05	4.3	900	6	P	
23	**Na**	1	**348.200**	ug/l	3,482.00	3.1	450000	6	A	
24	**Mg**	1	**13580.000**	ug/l	135,800.00	0.8	450000	6	A	
27	**Al**	1	**41180.000**	ug/l	411,800.00	1.0	450000	6	A	
31	**P**	1	**1246.000**	ug/l	12,460.00	0.3	450000	6	P	
39	**K**	1	**3284.000**	ug/l	32,840.00	0.7	450000	45	A	
44	**Ca**	1	**9138.000**	ug/l	91,380.00	0.5	450000	45	P	
47	**Ti**	1	**2055.000**	ug/l	20,550.00	1.0	4500	45	P	
51	**V**	1	**116.900**	ug/l	1,169.00	1.3	4500	45	A	
52	**Cr**	1	**49.890**	ug/l	498.90	1.7	4500	45	P	
55	**Mn**	1	**787.400**	ug/l	7,874.00	0.4	4500	45	A	
57	**Fe**	1	**63560.000**	ug/l	635,600.00	0.7	450000	74	A	
59	**Co**	1	**20.900**	ug/l	209.00	1.0	4500	74	P	
60	**Ni**	1	**46.990**	ug/l	469.90	0.9	4500	74	P	
63	**Cu**	1	**55.460**	ug/l	554.60	1.1	4500	74	P	
66	**Zn**	1	**132.400**	ug/l	1,324.00	0.6	4500	74	P	
75	**As**	1	**14.090**	ug/l	140.90	3.8	4500	74	P	
78	**Se**	1	**1.772**	ug/l	17.72	4.4	4500	74	P	
88	**Sr**	1	**82.230**	ug/l	822.30	1.3	4500	74	P	
95	**Mo**	1	**0.648**	ug/l	6.48	0.9	4500	103	P	
109	**Ag**	1	**0.112**	ug/l	1.12	6.8	4500	103	P	
111	**Cd**	1	**0.473**	ug/l	4.73	24.0	4500	103	P	
118	**Sn**	1	**2.443**	ug/l	24.43	0.7	4500	103	P	
123	**Sb**	1	**0.415**	ug/l	4.15	2.6	4500	103	P	
135	**Ba**	1	**331.500**	ug/l	3,315.00	1.1	4500	103	P	
200	**Hg**	1	**0.068**	ug/l	0.68	12.4	45	209	P	
205	**Tl**	1	**0.406**	ug/l	4.06	4.1	4500	209	P	
208	**Pb**	1	**23.430**	ug/l	234.30	1.2	4500	209	P	
238	**U**	1	**1.761**	ug/l	17.61	1.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67566	0.95	70500	**95.8**	30	-	125	
45	Sc	1	1720662	0.92	1703000	**101.0**	30	-	125	
74	Ge	1	3570022	0.92	3864000	**92.4**	30	-	125	
103	Rh	1	4787464	0.94	5496000	**87.1**	30	-	125	
165	Ho	1	2303323	0.89	2487000	**92.6**	30	-	125	
175	Lu	1	1908336	1.68	2103000	**90.7**	30	-	125	
209	Bi	1	2223917	1.30	2573000	**86.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\145SMPL.D\145SMPL.D#
Date Acquired: Sep 14 2011 02:48 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-D-19-B Vial Number: 2405
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.226**	ug/l	12.26	3.0	900	6	P	
23	**Na**	1	**499.700**	ug/l	4,997.00	3.3	450000	6	A	
24	**Mg**	1	**11830.000**	ug/l	118,300.00	1.4	450000	6	A	
27	**Al**	1	**30790.000**	ug/l	307,900.00	2.5	450000	6	A	
31	**P**	1	**1373.000**	ug/l	13,730.00	2.5	450000	6	P	
39	**K**	1	**2504.000**	ug/l	25,040.00	3.3	450000	45	A	
44	**Ca**	1	**9701.000**	ug/l	97,010.00	2.4	450000	45	P	
47	**Ti**	1	**2668.000**	ug/l	26,680.00	2.4	4500	45	A	
51	**V**	1	**129.800**	ug/l	1,298.00	0.8	4500	45	A	
52	**Cr**	1	**41.510**	ug/l	415.10	2.5	4500	45	P	
55	**Mn**	1	**1065.000**	ug/l	10,650.00	1.7	4500	45	A	
57	**Fe**	1	**60840.000**	ug/l	608,400.00	0.3	450000	74	A	
59	**Co**	1	**27.170**	ug/l	271.70	2.2	4500	74	P	
60	**Ni**	1	**46.050**	ug/l	460.50	2.2	4500	74	P	
63	**Cu**	1	**48.830**	ug/l	488.30	1.5	4500	74	P	
66	**Zn**	1	**122.400**	ug/l	1,224.00	1.8	4500	74	P	
75	**As**	1	**13.490**	ug/l	134.90	0.7	4500	74	P	
78	**Se**	1	**1.720**	ug/l	17.20	7.3	4500	74	P	
88	**Sr**	1	**112.500**	ug/l	1,125.00	1.8	4500	74	P	
95	**Mo**	1	**0.694**	ug/l	6.94	4.0	4500	103	P	
109	**Ag**	1	**0.104**	ug/l	1.04	7.6	4500	103	P	
111	**Cd**	1	**0.537**	ug/l	5.37	6.8	4500	103	P	
118	**Sn**	1	**2.281**	ug/l	22.81	0.4	4500	103	P	
123	**Sb**	1	**0.366**	ug/l	3.66	5.4	4500	103	P	
135	**Ba**	1	**347.900**	ug/l	3,479.00	0.8	4500	103	P	
200	**Hg**	1	**0.076**	ug/l	0.76	15.4	45	209	P	
205	**Tl**	1	**0.344**	ug/l	3.44	3.8	4500	209	P	
208	**Pb**	1	**19.610**	ug/l	196.10	2.3	4500	209	P	
238	**U**	1	**1.378**	ug/l	13.78	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	69322	1.28	70500	**98.3**	30 - 125	
45	Sc	1	1711005	3.32	1703000	**100.5**	30 - 125	
74	Ge	1	3578986	1.62	3864000	**92.6**	30 - 125	
103	Rh	1	4833253	0.70	5496000	**87.9**	30 - 125	
165	Ho	1	2327845	1.42	2487000	**93.6**	30 - 125	
175	Lu	1	1938302	1.00	2103000	**92.2**	30 - 125	
209	Bi	1	2276589	1.38	2573000	**88.5**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\146SMPL.D\146SMPL.D#
Date Acquired: Sep 14 2011 02:52 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-A-20-C Vial Number: 2406
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.202**	ug/l	12.02	4.4	900	6	P	
23	**Na**	1	**756.300**	ug/l	7,563.00	1.3	450000	6	A	
24	**Mg**	1	**12540.000**	ug/l	125,400.00	0.8	450000	6	A	
27	**Al**	1	**33400.000**	ug/l	334,000.00	1.7	450000	6	A	
31	**P**	1	**1970.000**	ug/l	19,700.00	2.9	450000	6	P	
39	**K**	1	**1482.000**	ug/l	14,820.00	2.9	450000	45	A	
44	**Ca**	1	**10070.000**	ug/l	100,700.00	2.0	450000	45	P	
47	**Ti**	1	**3389.000**	ug/l	33,890.00	1.2	4500	45	A	
51	**V**	1	**168.100**	ug/l	1,681.00	1.9	4500	45	A	
52	**Cr**	1	**35.630**	ug/l	356.30	2.8	4500	45	P	
55	**Mn**	1	**1236.000**	ug/l	12,360.00	2.1	4500	45	A	
57	**Fe**	1	**71780.000**	ug/l	717,800.00	1.8	450000	74	A	
59	**Co**	1	**41.560**	ug/l	415.60	1.6	4500	74	P	
60	**Ni**	1	**66.290**	ug/l	662.90	1.6	4500	74	P	
63	**Cu**	1	**163.900**	ug/l	1,639.00	1.2	4500	74	A	
66	**Zn**	1	**110.400**	ug/l	1,104.00	1.2	4500	74	P	
75	**As**	1	**8.284**	ug/l	82.84	2.3	4500	74	P	
78	**Se**	1	**1.736**	ug/l	17.36	6.3	4500	74	P	
88	**Sr**	1	**154.200**	ug/l	1,542.00	1.2	4500	74	A	
95	**Mo**	1	**0.719**	ug/l	7.19	2.7	4500	103	P	
109	**Ag**	1	**0.075**	ug/l	0.75	4.4	4500	103	P	
111	**Cd**	1	**0.575**	ug/l	5.75	13.1	4500	103	P	
118	**Sn**	1	**2.313**	ug/l	23.13	0.9	4500	103	P	
123	**Sb**	1	**0.262**	ug/l	2.62	9.6	4500	103	P	
135	**Ba**	1	**164.000**	ug/l	1,640.00	1.0	4500	103	P	
200	**Hg**	1	**0.041**	ug/l	0.41	8.8	45	209	P	
205	**Tl**	1	**0.151**	ug/l	1.51	10.9	4500	209	P	
208	**Pb**	1	**13.410**	ug/l	134.10	2.1	4500	209	P	
238	**U**	1	**0.762**	ug/l	7.62	2.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69079	2.26	70500	**98.0**	30	-	125	
45	Sc	1	1723431	2.60	1703000	**101.2**	30	-	125	
74	Ge	1	3540398	0.96	3864000	**91.6**	30	-	125	
103	Rh	1	4810120	0.88	5496000	**87.5**	30	-	125	
165	Ho	1	2317276	0.96	2487000	**93.2**	30	-	125	
175	Lu	1	1932172	1.35	2103000	**91.9**	30	-	125	
209	Bi	1	2229460	1.19	2573000	**86.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\147SMPL.D\147SMPL.D#
Date Acquired: Sep 14 2011 02:56 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-A-21-C Vial Number: 2407
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.802**	ug/l	18.02	2.6	900	6	P	
23	**Na**	1	**404.600**	ug/l	4,046.00	2.0	450000	6	A	
24	**Mg**	1	**12150.000**	ug/l	121,500.00	4.0	450000	6	A	
27	**Al**	1	**33730.000**	ug/l	337,300.00	2.8	450000	6	A	
31	**P**	1	**1775.000**	ug/l	17,750.00	2.3	450000	6	P	
39	**K**	1	**1763.000**	ug/l	17,630.00	2.2	450000	45	A	
44	**Ca**	1	**10710.000**	ug/l	107,100.00	1.0	450000	45	P	
47	**Ti**	1	**1970.000**	ug/l	19,700.00	0.7	4500	45	P	
51	**V**	1	**145.800**	ug/l	1,458.00	1.2	4500	45	A	
52	**Cr**	1	**37.120**	ug/l	371.20	1.5	4500	45	P	
55	**Mn**	1	**1631.000**	ug/l	16,310.00	1.0	4500	45	A	
57	**Fe**	1	**72530.000**	ug/l	725,300.00	0.8	450000	74	A	
59	**Co**	1	**37.860**	ug/l	378.60	1.1	4500	74	P	
60	**Ni**	1	**44.480**	ug/l	444.80	1.7	4500	74	P	
63	**Cu**	1	**180.100**	ug/l	1,801.00	0.7	4500	74	A	
66	**Zn**	1	**148.000**	ug/l	1,480.00	1.4	4500	74	P	
75	**As**	1	**6.738**	ug/l	67.38	1.0	4500	74	P	
78	**Se**	1	**2.328**	ug/l	23.28	7.1	4500	74	P	
88	**Sr**	1	**152.000**	ug/l	1,520.00	0.5	4500	74	A	
95	**Mo**	1	**0.562**	ug/l	5.62	8.3	4500	103	P	
109	**Ag**	1	**0.205**	ug/l	2.05	5.5	4500	103	P	
111	**Cd**	1	**0.717**	ug/l	7.17	9.6	4500	103	P	
118	**Sn**	1	**2.170**	ug/l	21.70	2.3	4500	103	P	
123	**Sb**	1	**0.265**	ug/l	2.65	10.1	4500	103	P	
135	**Ba**	1	**307.600**	ug/l	3,076.00	1.2	4500	103	P	
200	**Hg**	1	**0.075**	ug/l	0.75	4.9	45	209	P	
205	**Tl**	1	**0.242**	ug/l	2.42	5.4	4500	209	P	
208	**Pb**	1	**18.510**	ug/l	185.10	2.3	4500	209	P	
238	**U**	1	**1.103**	ug/l	11.03	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68058	2.91	70500	**96.5**	30	-	125	
45	Sc	1	1707887	1.45	1703000	**100.3**	30	-	125	
74	Ge	1	3519723	0.71	3864000	**91.1**	30	-	125	
103	Rh	1	4762093	0.70	5496000	**86.6**	30	-	125	
165	Ho	1	2343643	0.87	2487000	**94.2**	30	-	125	
175	Lu	1	1942013	2.76	2103000	**92.3**	30	-	125	
209	Bi	1	2231486	1.96	2573000	**86.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\148SMPL.D\148SMPL.D#
Date Acquired: Sep 14 2011 03:00 am Acq. Method: 00He_ALL.M
Sample Name: 580-28235-B-1-B Vial Number: 2408
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.045**	ug/l	10.45	5.5	900	6	P	
23	Na	1	**587.600**	ug/l	5,876.00	2.3	450000	6	A	
24	Mg	1	**11680.000**	ug/l	116,800.00	0.9	450000	6	A	
27	Al	1	**40650.000**	ug/l	406,500.00	1.3	450000	6	A	
31	P	1	**1360.000**	ug/l	13,600.00	2.0	450000	6	P	
39	K	1	**899.300**	ug/l	8,993.00	1.4	450000	45	A	
44	Ca	1	**9781.000**	ug/l	97,810.00	1.3	450000	45	P	
47	Ti	1	**4968.000**	ug/l	49,680.00	0.6	4500	45	A	Fail
51	V	1	**263.100**	ug/l	2,631.00	1.2	4500	45	A	
52	Cr	1	**127.000**	ug/l	1,270.00	2.8	4500	45	A	
55	Mn	1	**1730.000**	ug/l	17,300.00	1.3	4500	45	A	
57	Fe	1	**85730.000**	ug/l	857,300.00	2.3	450000	74	A	
59	Co	1	**63.210**	ug/l	632.10	3.0	4500	74	P	
60	Ni	1	**87.900**	ug/l	879.00	3.4	4500	74	P	
63	Cu	1	**157.100**	ug/l	1,571.00	2.1	4500	74	A	
66	Zn	1	**123.800**	ug/l	1,238.00	2.1	4500	74	P	
75	As	1	**4.053**	ug/l	40.53	2.2	4500	74	P	
78	Se	1	**1.961**	ug/l	19.61	3.1	4500	74	P	
88	Sr	1	**141.100**	ug/l	1,411.00	2.4	4500	74	A	
95	Mo	1	**0.553**	ug/l	5.53	4.8	4500	103	P	
109	Ag	1	**0.067**	ug/l	0.67	10.5	4500	103	P	
111	Cd	1	**0.451**	ug/l	4.51	15.1	4500	103	P	
118	Sn	1	**2.200**	ug/l	22.00	0.8	4500	103	P	
123	Sb	1	**0.145**	ug/l	1.45	8.2	4500	103	P	
135	Ba	1	**216.900**	ug/l	2,169.00	0.7	4500	103	P	
200	Hg	1	**0.127**	ug/l	1.27	5.4	45	209	P	
205	Tl	1	**0.106**	ug/l	1.06	8.9	4500	209	P	
208	Pb	1	**6.660**	ug/l	66.60	2.0	4500	209	P	
238	U	1	**0.529**	ug/l	5.29	3.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69721	1.29	70500	**98.9**	30	-	125	
45	Sc	1	1742423	0.99	1703000	**102.3**	30	-	125	
74	Ge	1	3531827	1.65	3864000	**91.4**	30	-	125	
103	Rh	1	4698557	0.91	5496000	**85.5**	30	-	125	
165	Ho	1	2299626	1.24	2487000	**92.5**	30	-	125	
175	Lu	1	1908187	1.02	2103000	**90.7**	30	-	125	
209	Bi	1	2194574	1.51	2573000	**85.3**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\149SMPL.D\149SMPL.D#
Date Acquired: Sep 14 2011 03:05 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.620**	ug/l	46.62	0.8	900	6	P	
23	**Na**	1	**4712.000**	ug/l	4,712.00	1.7	450000	6	A	
24	**Mg**	1	**4645.000**	ug/l	4,645.00	0.4	450000	6	A	
27	**Al**	1	**477.500**	ug/l	477.50	0.7	450000	6	P	
31	**P**	1	**4629.000**	ug/l	4,629.00	0.8	450000	6	P	
39	**K**	1	**4994.000**	ug/l	4,994.00	3.8	450000	45	A	
44	**Ca**	1	**4807.000**	ug/l	4,807.00	3.4	450000	45	P	
47	**Ti**	1	**49.200**	ug/l	49.20	4.3	4500	45	P	
51	**V**	1	**46.360**	ug/l	46.36	3.9	4500	45	P	
52	**Cr**	1	**46.810**	ug/l	46.81	3.6	4500	45	P	
55	**Mn**	1	**47.370**	ug/l	47.37	3.1	4500	45	P	
57	**Fe**	1	**5057.000**	ug/l	5,057.00	0.7	450000	74	A	
59	**Co**	1	**47.950**	ug/l	47.95	0.5	4500	74	P	
60	**Ni**	1	**48.570**	ug/l	48.57	0.3	4500	74	P	
63	**Cu**	1	**48.670**	ug/l	48.67	0.5	4500	74	P	
66	**Zn**	1	**47.740**	ug/l	47.74	1.1	4500	74	P	
75	**As**	1	**47.490**	ug/l	47.49	0.8	4500	74	P	
78	**Se**	1	**48.740**	ug/l	48.74	0.3	4500	74	P	
88	**Sr**	1	**48.390**	ug/l	48.39	0.9	4500	74	P	
95	**Mo**	1	**47.480**	ug/l	47.48	0.8	4500	103	P	
109	**Ag**	1	**47.680**	ug/l	47.68	1.6	4500	103	P	
111	**Cd**	1	**47.360**	ug/l	47.36	2.2	4500	103	P	
118	**Sn**	1	**47.970**	ug/l	47.97	0.9	4500	103	P	
123	**Sb**	1	**47.980**	ug/l	47.98	0.7	4500	103	P	
135	**Ba**	1	**49.080**	ug/l	49.08	1.5	4500	103	P	
200	**Hg**	1	**2.333**	ug/l	2.33	2.3	45	209	P	
205	**Tl**	1	**45.690**	ug/l	45.69	0.3	4500	209	P	
208	**Pb**	1	**47.380**	ug/l	47.38	1.8	4500	209	P	
238	**U**	1	**48.050**	ug/l	48.05	1.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71076	0.66	70500	**100.8**	30	-	125	
45	Sc	1	1680107	4.01	1703000	**98.7**	30	-	125	
74	Ge	1	3638411	0.76	3864000	**94.2**	30	-	125	
103	Rh	1	4942146	0.78	5496000	**89.9**	30	-	125	
165	Ho	1	2333926	0.69	2487000	**93.8**	30	-	125	
175	Lu	1	1941710	1.10	2103000	**92.3**	30	-	125	
209	Bi	1	2353272	1.74	2573000	**91.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\150SMPL.D\150SMPL.D#
Date Acquired: Sep 14 2011 03:09 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.01	62.3	900	6	P	
23	**Na**	1	**-14.140**	ug/l	-14.14	4.6	450000	6	P	
24	**Mg**	1	**1.503**	ug/l	1.50	4.5	450000	6	P	
27	**Al**	1	**2.076**	ug/l	2.08	7.3	450000	6	P	
31	**P**	1	**-0.711**	ug/l	-0.71	311.8	450000	6	P	
39	**K**	1	**8.023**	ug/l	8.02	48.1	450000	45	P	
44	**Ca**	1	**1.530**	ug/l	1.53	23.8	450000	45	P	
47	**Ti**	1	**0.569**	ug/l	0.57	0.2	4500	45	P	
51	**V**	1	**0.024**	ug/l	0.02	46.0	4500	45	P	
52	**Cr**	1	**0.008**	ug/l	0.01	132.2	4500	45	P	
55	**Mn**	1	**0.240**	ug/l	0.24	5.7	4500	45	P	
57	**Fe**	1	**7.412**	ug/l	7.41	5.3	450000	74	P	
59	**Co**	1	**0.009**	ug/l	0.01	25.8	4500	74	P	
60	**Ni**	1	**0.011**	ug/l	0.01	66.3	4500	74	P	
63	**Cu**	1	**0.009**	ug/l	0.01	181.9	4500	74	P	
66	**Zn**	1	**0.040**	ug/l	0.04	59.4	4500	74	P	
75	**As**	1	**-0.003**	ug/l	0.00	423.6	4500	74	P	
78	**Se**	1	**0.153**	ug/l	0.15	43.4	4500	74	P	
88	**Sr**	1	**0.015**	ug/l	0.01	19.7	4500	74	P	
95	**Mo**	1	**0.092**	ug/l	0.09	24.7	4500	103	P	
109	**Ag**	1	**0.011**	ug/l	0.01	24.8	4500	103	P	
111	**Cd**	1	**0.013**	ug/l	0.01	115.0	4500	103	P	
118	**Sn**	1	**0.146**	ug/l	0.15	15.3	4500	103	P	
123	**Sb**	1	**0.034**	ug/l	0.03	30.6	4500	103	P	
135	**Ba**	1	**0.030**	ug/l	0.03	49.8	4500	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	18.0	45	209	P	
205	**Tl**	1	**0.257**	ug/l	0.26	10.3	4500	209	P	
208	**Pb**	1	**0.016**	ug/l	0.02	42.9	4500	209	P	
238	**U**	1	**0.015**	ug/l	0.01	5.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71859	0.75	70500	**101.9**	30	-	125	
45	Sc	1	1703981	2.62	1703000	**100.1**	30	-	125	
74	Ge	1	3687096	0.62	3864000	**95.4**	30	-	125	
103	Rh	1	5158714	1.30	5496000	**93.9**	30	-	125	
165	Ho	1	2335420	2.41	2487000	**93.9**	30	-	125	
175	Lu	1	1947031	1.36	2103000	**92.6**	30	-	125	
209	Bi	1	2388321	1.68	2573000	**92.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\151SMPL.D\151SMPL.D#
Date Acquired: Sep 14 2011 03:14 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95245/18-A Vial Number: 4401
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.01	116.5	900	6	P	
23	**Na**	1	**-11.980**	ug/l	-59.90	2.4	450000	6	P	
24	**Mg**	1	**0.759**	ug/l	3.79	7.7	450000	6	P	
27	**Al**	1	**1.950**	ug/l	9.75	15.8	450000	6	P	
31	**P**	1	**0.639**	ug/l	3.19	464.6	450000	6	P	
39	**K**	1	**8.688**	ug/l	43.44	35.0	450000	45	P	
44	**Ca**	1	**4.173**	ug/l	20.87	3.1	450000	45	P	
47	**Ti**	1	**0.338**	ug/l	1.69	3.2	4500	45	P	
51	**V**	1	**0.013**	ug/l	0.06	181.3	4500	45	P	
52	**Cr**	1	**0.004**	ug/l	0.02	364.7	4500	45	P	
55	**Mn**	1	**0.216**	ug/l	1.08	16.4	4500	45	P	
57	**Fe**	1	**3.438**	ug/l	17.19	9.7	450000	74	P	
59	**Co**	1	**0.003**	ug/l	0.02	19.3	4500	74	P	
60	**Ni**	1	**0.027**	ug/l	0.14	32.1	4500	74	P	
63	**Cu**	1	**0.041**	ug/l	0.20	14.3	4500	74	P	
66	**Zn**	1	**0.176**	ug/l	0.88	12.6	4500	74	P	
75	**As**	1	**0.022**	ug/l	0.11	114.9	4500	74	P	
78	**Se**	1	**0.114**	ug/l	0.57	102.6	4500	74	P	
88	**Sr**	1	**0.014**	ug/l	0.07	86.7	4500	74	P	
95	**Mo**	1	**0.030**	ug/l	0.15	43.7	4500	103	P	
109	**Ag**	1	**0.001**	ug/l	0.01	66.6	4500	103	P	
111	**Cd**	1	**0.017**	ug/l	0.08	48.7	4500	103	P	
118	**Sn**	1	**0.083**	ug/l	0.41	17.3	4500	103	P	
123	**Sb**	1	**0.016**	ug/l	0.08	31.4	4500	103	P	
135	**Ba**	1	**0.051**	ug/l	0.25	13.3	4500	103	P	
200	**Hg**	1	**0.008**	ug/l	0.04	37.9	45	209	P	
205	**Tl**	1	**0.099**	ug/l	0.50	14.7	4500	209	P	
208	**Pb**	1	**0.012**	ug/l	0.06	89.1	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.01	32.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71081	0.13	70500	**100.8**	30	-	125	
45	Sc	1	1695536	2.61	1703000	**99.6**	30	-	125	
74	Ge	1	3706399	1.12	3864000	**95.9**	30	-	125	
103	Rh	1	5130873	0.71	5496000	**93.4**	30	-	125	
165	Ho	1	2347416	1.53	2487000	**94.4**	30	-	125	
175	Lu	1	1944715	0.93	2103000	**92.5**	30	-	125	
209	Bi	1	2427904	2.07	2573000	**94.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\152SMPL.D\152SMPL.D#
Date Acquired: Sep 14 2011 03:18 am Acq. Method: 00He_ALL.M
Sample Name: 580-28299-D-1-B SD Vial Number: 4402
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **25.00** Final Dil Factor: **25.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.07	93.7	900	6	P	
23	**Na**	1	**217.900**	ug/l	5,447.50	0.7	450000	6	P	
24	**Mg**	1	**735.700**	ug/l	18,392.50	2.9	450000	6	A	
27	**Al**	1	**1.410**	ug/l	35.25	1.2	450000	6	P	
31	**P**	1	**2.273**	ug/l	56.83	13.2	450000	6	P	
39	**K**	1	**39.630**	ug/l	990.75	6.1	450000	45	P	
44	**Ca**	1	**2523.000**	ug/l	63,075.00	1.6	450000	45	P	
47	**Ti**	1	**0.181**	ug/l	4.51	8.7	4500	45	P	
51	**V**	1	**-0.111**	ug/l	-2.78	7.2	4500	45	P	
52	**Cr**	1	**-0.012**	ug/l	-0.31	39.0	4500	45	P	
55	**Mn**	1	**0.135**	ug/l	3.38	3.5	4500	45	P	
57	**Fe**	1	**3.928**	ug/l	98.20	12.5	450000	74	P	
59	**Co**	1	**-0.001**	ug/l	-0.02	74.1	4500	74	P	
60	**Ni**	1	**0.028**	ug/l	0.71	58.4	4500	74	P	
63	**Cu**	1	**0.115**	ug/l	2.87	9.7	4500	74	P	
66	**Zn**	1	**0.251**	ug/l	6.27	20.6	4500	74	P	
75	**As**	1	**-0.004**	ug/l	-0.10	228.2	4500	74	P	
78	**Se**	1	**0.197**	ug/l	4.91	22.2	4500	74	P	
88	**Sr**	1	**3.960**	ug/l	99.00	1.1	4500	74	P	
95	**Mo**	1	**0.036**	ug/l	0.90	13.6	4500	103	P	
109	**Ag**	1	**-0.001**	ug/l	-0.02	240.7	4500	103	P	
111	**Cd**	1	**0.003**	ug/l	0.07	220.7	4500	103	P	
118	**Sn**	1	**0.048**	ug/l	1.21	29.9	4500	103	P	
123	**Sb**	1	**0.003**	ug/l	0.08	67.9	4500	103	P	
135	**Ba**	1	**1.888**	ug/l	47.20	2.0	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.26	33.6	45	209	P	
205	**Tl**	1	**0.069**	ug/l	1.72	25.3	4500	209	P	
208	**Pb**	1	**0.005**	ug/l	0.13	336.4	4500	209	P	
238	**U**	1	**0.045**	ug/l	1.12	4.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77383	1.06	70500	**109.8**	30	-	125	
45	Sc	1	1778163	1.41	1703000	**104.4**	30	-	125	
74	Ge	1	3808401	0.93	3864000	**98.6**	30	-	125	
103	Rh	1	5143562	1.18	5496000	**93.6**	30	-	125	
165	Ho	1	2281886	1.69	2487000	**91.8**	30	-	125	
175	Lu	1	1951354	2.60	2103000	**92.8**	30	-	125	
209	Bi	1	2325437	2.28	2573000	**90.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\153SMPL.D\153SMPL.D#
Date Acquired: Sep 14 2011 03:22 am Acq. Method: 00He_ALL.M
Sample Name: 580-28299-D-1-B Vial Number: 4403
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.004**	ug/l	-0.02	99.9	900	6	P	
23	**Na**	1	**1207.000**	ug/l	6,035.00	0.7	450000	6	A	
24	**Mg**	1	**3985.000**	ug/l	19,925.00	0.8	450000	6	A	
27	**Al**	1	**4.230**	ug/l	21.15	4.9	450000	6	P	
31	**P**	1	**21.970**	ug/l	109.85	3.1	450000	6	P	
39	**K**	1	**162.700**	ug/l	813.50	3.2	450000	45	P	
44	**Ca**	1	**12660.000**	ug/l	63,300.00	1.8	450000	45	P	
47	**Ti**	1	**0.208**	ug/l	1.04	20.2	4500	45	P	
51	**V**	1	**0.257**	ug/l	1.28	8.6	4500	45	P	
52	**Cr**	1	**0.097**	ug/l	0.49	9.0	4500	45	P	
55	**Mn**	1	**0.107**	ug/l	0.54	10.5	4500	45	P	
57	**Fe**	1	**14.420**	ug/l	72.10	6.2	450000	74	P	
59	**Co**	1	**0.003**	ug/l	0.01	56.0	4500	74	P	
60	**Ni**	1	**0.104**	ug/l	0.52	15.7	4500	74	P	
63	**Cu**	1	**0.040**	ug/l	0.20	42.6	4500	74	P	
66	**Zn**	1	**0.713**	ug/l	3.57	2.7	4500	74	P	
75	**As**	1	**0.072**	ug/l	0.36	15.4	4500	74	P	
78	**Se**	1	**0.409**	ug/l	2.05	23.0	4500	74	P	
88	**Sr**	1	**20.130**	ug/l	100.65	1.4	4500	74	P	
95	**Mo**	1	**0.128**	ug/l	0.64	13.8	4500	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	426.4	4500	103	P	
111	**Cd**	1	**0.015**	ug/l	0.07	45.1	4500	103	P	
118	**Sn**	1	**0.068**	ug/l	0.34	38.2	4500	103	P	
123	**Sb**	1	**0.004**	ug/l	0.02	113.7	4500	103	P	
135	**Ba**	1	**9.822**	ug/l	49.11	5.5	4500	103	P	
200	**Hg**	1	**0.008**	ug/l	0.04	17.6	45	209	P	
205	**Tl**	1	**0.049**	ug/l	0.25	18.8	4500	209	P	
208	**Pb**	1	**-0.008**	ug/l	-0.04	74.6	4500	209	P	
238	**U**	1	**0.219**	ug/l	1.09	3.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66544	2.04	70500	**94.4**	30	-	125	
45	Sc	1	1670630	2.15	1703000	**98.1**	30	-	125	
74	Ge	1	3701882	0.15	3864000	**95.8**	30	-	125	
103	Rh	1	5020388	0.56	5496000	**91.3**	30	-	125	
165	Ho	1	2361454	1.38	2487000	**95.0**	30	-	125	
175	Lu	1	1992150	1.28	2103000	**94.7**	30	-	125	
209	Bi	1	2372037	1.44	2573000	**92.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\154SMPL.D\154SMPL.D#
Date Acquired: Sep 14 2011 03:27 am Acq. Method: 00He_ALL.M
Sample Name: 580-28299-D-1-C DU Vial Number: 4404
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	-0.02	67.1	900	6	P	
23	**Na**	1	**1226.000**	ug/l	6,130.00	0.6	450000	6	A	
24	**Mg**	1	**4055.000**	ug/l	20,275.00	2.0	450000	6	A	
27	**Al**	1	**4.580**	ug/l	22.90	1.8	450000	6	P	
31	**P**	1	**22.440**	ug/l	112.20	9.4	450000	6	P	
39	**K**	1	**163.700**	ug/l	818.50	4.1	450000	45	P	
44	**Ca**	1	**12840.000**	ug/l	64,200.00	1.9	450000	45	P	
47	**Ti**	1	**0.178**	ug/l	0.89	33.9	4500	45	P	
51	**V**	1	**0.214**	ug/l	1.07	9.3	4500	45	P	
52	**Cr**	1	**0.095**	ug/l	0.47	12.5	4500	45	P	
55	**Mn**	1	**0.107**	ug/l	0.54	3.7	4500	45	P	
57	**Fe**	1	**14.220**	ug/l	71.10	2.5	450000	74	P	
59	**Co**	1	**0.004**	ug/l	0.02	20.6	4500	74	P	
60	**Ni**	1	**0.104**	ug/l	0.52	11.1	4500	74	P	
63	**Cu**	1	**0.033**	ug/l	0.17	50.0	4500	74	P	
66	**Zn**	1	**0.685**	ug/l	3.42	3.8	4500	74	P	
75	**As**	1	**0.078**	ug/l	0.39	15.1	4500	74	P	
78	**Se**	1	**0.449**	ug/l	2.24	16.0	4500	74	P	
88	**Sr**	1	**20.230**	ug/l	101.15	1.3	4500	74	P	
95	**Mo**	1	**0.114**	ug/l	0.57	2.4	4500	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	298.1	4500	103	P	
111	**Cd**	1	**0.015**	ug/l	0.07	43.9	4500	103	P	
118	**Sn**	1	**0.055**	ug/l	0.28	11.1	4500	103	P	
123	**Sb**	1	**0.005**	ug/l	0.02	14.2	4500	103	P	
135	**Ba**	1	**9.884**	ug/l	49.42	1.2	4500	103	P	
200	**Hg**	1	**0.004**	ug/l	0.02	73.3	45	209	P	
205	**Tl**	1	**0.040**	ug/l	0.20	17.6	4500	209	P	
208	**Pb**	1	**-0.002**	ug/l	-0.01	791.1	4500	209	P	
238	**U**	1	**0.225**	ug/l	1.13	5.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65771	1.19	70500	**93.3**	30	-	125	
45	Sc	1	1670513	2.83	1703000	**98.1**	30	-	125	
74	Ge	1	3726529	1.55	3864000	**96.4**	30	-	125	
103	Rh	1	5030271	0.56	5496000	**91.5**	30	-	125	
165	Ho	1	2362458	1.63	2487000	**95.0**	30	-	125	
175	Lu	1	2003356	0.68	2103000	**95.3**	30	-	125	
209	Bi	1	2387270	1.33	2573000	**92.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\155SMPL.D\155SMPL.D#
Date Acquired: Sep 14 2011 03:31 am Acq. Method: 00He_ALL.M
Sample Name: 580-28299-D-1-D MS Vial Number: 4405
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.032**	ug/l	101.60	5.5	900	6	P	
23	**Na**	1	**504.200**	ug/l	25,210.00	1.2	450000	6	A	
24	**Mg**	1	**827.900**	ug/l	41,395.00	0.4	450000	6	A	
27	**Al**	1	**80.900**	ug/l	4,045.00	1.4	450000	6	P	
31	**P**	1	**390.800**	ug/l	19,540.00	2.7	450000	6	P	
39	**K**	1	**486.700**	ug/l	24,335.00	3.2	450000	45	M	
44	**Ca**	1	**1764.000**	ug/l	88,200.00	2.6	450000	45	P	
47	**Ti**	1	**100.800**	ug/l	5,040.00	3.5	4500	45	P	
51	**V**	1	**20.540**	ug/l	1,027.00	2.6	4500	45	P	
52	**Cr**	1	**8.297**	ug/l	414.85	3.3	4500	45	P	
55	**Mn**	1	**21.040**	ug/l	1,052.00	2.9	4500	45	P	
57	**Fe**	1	**472.900**	ug/l	23,645.00	1.5	450000	74	P	
59	**Co**	1	**21.400**	ug/l	1,070.00	0.9	4500	74	P	
60	**Ni**	1	**21.910**	ug/l	1,095.50	0.3	4500	74	P	
63	**Cu**	1	**11.300**	ug/l	565.00	0.9	4500	74	P	
66	**Zn**	1	**21.350**	ug/l	1,067.50	1.7	4500	74	P	
75	**As**	1	**86.760**	ug/l	4,338.00	0.6	4500	74	P	
78	**Se**	1	**85.250**	ug/l	4,262.50	0.6	4500	74	P	
88	**Sr**	1	**2.062**	ug/l	103.10	3.0	4500	74	P	
95	**Mo**	1	**101.500**	ug/l	5,075.00	1.5	4500	103	P	
109	**Ag**	1	**12.360**	ug/l	618.00	1.5	4500	103	P	
111	**Cd**	1	**2.162**	ug/l	108.10	1.1	4500	103	P	
118	**Sn**	1	**96.860**	ug/l	4,843.00	1.8	4500	103	P	
123	**Sb**	1	**61.240**	ug/l	3,062.00	0.4	4500	103	P	
135	**Ba**	1	**84.460**	ug/l	4,223.00	2.5	4500	103	P	
200	**Hg**	1	**0.986**	ug/l	49.28	4.0	45	209	P	
205	**Tl**	1	**86.760**	ug/l	4,338.00	2.4	4500	209	A	
208	**Pb**	1	**21.380**	ug/l	1,069.00	4.0	4500	209	P	
238	**U**	1	**0.020**	ug/l	1.01	13.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80540	0.99	70500	**114.2**	30	-	125	
45	Sc	1	1796603	2.90	1703000	**105.5**	30	-	125	
74	Ge	1	3845675	0.48	3864000	**99.5**	30	-	125	
103	Rh	1	5285408	0.82	5496000	**96.2**	30	-	125	
165	Ho	1	2343090	0.46	2487000	**94.2**	30	-	125	
175	Lu	1	1982896	1.06	2103000	**94.3**	30	-	125	
209	Bi	1	2361096	3.55	2573000	**91.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\156SMPL.D\156SMPL.D#
Date Acquired: Sep 14 2011 03:36 am Acq. Method: 00He_ALL.M
Sample Name: 580-28299-D-1-E MSD Vial Number: 4406
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.924**	ug/l	96.20	4.9	900	6	P	
23	**Na**	1	**496.200**	ug/l	24,810.00	4.2	450000	6	A	
24	**Mg**	1	**788.100**	ug/l	39,405.00	1.6	450000	6	A	
27	**Al**	1	**79.430**	ug/l	3,971.50	1.7	450000	6	P	
31	**P**	1	**378.100**	ug/l	18,905.00	1.2	450000	6	P	
39	**K**	1	**463.500**	ug/l	23,175.00	3.4	450000	45	M	
44	**Ca**	1	**1668.000**	ug/l	83,400.00	2.6	450000	45	P	
47	**Ti**	1	**96.610**	ug/l	4,830.50	2.6	4500	45	P	
51	**V**	1	**19.540**	ug/l	977.00	3.8	4500	45	P	
52	**Cr**	1	**7.981**	ug/l	399.05	3.7	4500	45	P	
55	**Mn**	1	**20.150**	ug/l	1,007.50	3.0	4500	45	P	
57	**Fe**	1	**457.000**	ug/l	22,850.00	1.1	450000	74	P	
59	**Co**	1	**20.490**	ug/l	1,024.50	0.9	4500	74	P	
60	**Ni**	1	**20.850**	ug/l	1,042.50	1.8	4500	74	P	
63	**Cu**	1	**10.840**	ug/l	542.00	1.5	4500	74	P	
66	**Zn**	1	**20.150**	ug/l	1,007.50	1.3	4500	74	P	
75	**As**	1	**82.560**	ug/l	4,128.00	1.0	4500	74	P	
78	**Se**	1	**81.380**	ug/l	4,069.00	0.8	4500	74	P	
88	**Sr**	1	**1.923**	ug/l	96.15	1.0	4500	74	P	
95	**Mo**	1	**99.290**	ug/l	4,964.50	1.9	4500	103	P	
109	**Ag**	1	**12.160**	ug/l	608.00	1.1	4500	103	P	
111	**Cd**	1	**2.044**	ug/l	102.20	2.5	4500	103	P	
118	**Sn**	1	**95.810**	ug/l	4,790.50	2.0	4500	103	P	
123	**Sb**	1	**60.070**	ug/l	3,003.50	1.5	4500	103	P	
135	**Ba**	1	**81.660**	ug/l	4,083.00	1.2	4500	103	P	
200	**Hg**	1	**1.003**	ug/l	50.15	3.0	45	209	P	
205	**Tl**	1	**82.850**	ug/l	4,142.50	4.2	4500	209	A	
208	**Pb**	1	**20.720**	ug/l	1,036.00	5.1	4500	209	P	
238	**U**	1	**0.020**	ug/l	1.02	13.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79997	1.56	70500	**113.5**	30	-	125	
45	Sc	1	1815407	2.15	1703000	**106.6**	30	-	125	
74	Ge	1	3902038	1.14	3864000	**101.0**	30	-	125	
103	Rh	1	5238300	1.35	5496000	**95.3**	30	-	125	
165	Ho	1	2324299	0.63	2487000	**93.5**	30	-	125	
175	Lu	1	1953117	1.12	2103000	**92.9**	30	-	125	
209	Bi	1	2349295	3.58	2573000	**91.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\157SMPL.D\157SMPL.D#
Date Acquired: Sep 14 2011 03:40 am Acq. Method: 00He_ALL.M
Sample Name: 580-28299-D-1-B PDS Vial Number: 4407
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.933**	ug/l	96.65	3.9	900	6	P	
23	**Na**	1	**504.700**	ug/l	25,235.00	0.0	450000	6	A	
24	**Mg**	1	**779.900**	ug/l	38,995.00	2.2	450000	6	A	
27	**Al**	1	**80.470**	ug/l	4,023.50	0.7	450000	6	P	
31	**P**	1	**391.300**	ug/l	19,565.00	2.7	450000	6	P	
39	**K**	1	**486.700**	ug/l	24,335.00	3.9	450000	45	A	
44	**Ca**	1	**1622.000**	ug/l	81,100.00	0.6	450000	45	P	
47	**Ti**	1	**103.100**	ug/l	5,155.00	0.3	4500	45	P	
51	**V**	1	**20.390**	ug/l	1,019.50	1.1	4500	45	P	
52	**Cr**	1	**8.214**	ug/l	410.70	0.6	4500	45	P	
55	**Mn**	1	**21.030**	ug/l	1,051.50	0.6	4500	45	P	
57	**Fe**	1	**474.400**	ug/l	23,720.00	1.7	450000	74	P	
59	**Co**	1	**21.040**	ug/l	1,052.00	0.2	4500	74	P	
60	**Ni**	1	**21.550**	ug/l	1,077.50	1.2	4500	74	P	
63	**Cu**	1	**11.170**	ug/l	558.50	1.2	4500	74	P	
66	**Zn**	1	**21.020**	ug/l	1,051.00	1.1	4500	74	P	
75	**As**	1	**83.640**	ug/l	4,182.00	1.2	4500	74	P	
78	**Se**	1	**83.860**	ug/l	4,193.00	0.7	4500	74	P	
88	**Sr**	1	**1.852**	ug/l	92.60	2.9	4500	74	P	
95	**Mo**	1	**104.300**	ug/l	5,215.00	0.5	4500	103	P	
109	**Ag**	1	**12.600**	ug/l	630.00	0.4	4500	103	P	
111	**Cd**	1	**2.095**	ug/l	104.75	4.2	4500	103	P	
118	**Sn**	1	**100.400**	ug/l	5,020.00	1.1	4500	103	P	
123	**Sb**	1	**45.350**	ug/l	2,267.50	2.0	4500	103	P	
135	**Ba**	1	**84.060**	ug/l	4,203.00	0.1	4500	103	P	
200	**Hg**	1	**1.003**	ug/l	50.15	5.7	45	209	P	
205	**Tl**	1	**85.710**	ug/l	4,285.50	4.1	4500	209	A	
208	**Pb**	1	**21.370**	ug/l	1,068.50	4.7	4500	209	P	
238	**U**	1	**0.018**	ug/l	0.90	20.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80648	0.93	70500	**114.4**	30	-	125	
45	Sc	1	1815022	0.27	1703000	**106.6**	30	-	125	
74	Ge	1	3909852	0.39	3864000	**101.2**	30	-	125	
103	Rh	1	5274539	0.63	5496000	**96.0**	30	-	125	
165	Ho	1	2335660	0.96	2487000	**93.9**	30	-	125	
175	Lu	1	1968856	0.32	2103000	**93.6**	30	-	125	
209	Bi	1	2338676	3.75	2573000	**90.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\158SMPL.D\158SMPL.D#
Date Acquired: Sep 14 2011 03:44 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95245/19-A Vial Number: 4408
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.902**	ug/l	95.10	9.3	900	6	P	
23	**Na**	1	**409.800**	ug/l	20,490.00	1.6	450000	6	A	
24	**Mg**	1	**423.400**	ug/l	21,170.00	2.0	450000	6	P	
27	**Al**	1	**81.900**	ug/l	4,095.00	2.2	450000	6	P	
31	**P**	1	**388.800**	ug/l	19,440.00	1.9	450000	6	P	
39	**K**	1	**421.200**	ug/l	21,060.00	1.0	450000	45	P	
44	**Ca**	1	**401.200**	ug/l	20,060.00	0.8	450000	45	P	
47	**Ti**	1	**93.910**	ug/l	4,695.50	1.2	4500	45	P	
51	**V**	1	**19.060**	ug/l	953.00	0.6	4500	45	P	
52	**Cr**	1	**7.738**	ug/l	386.90	3.5	4500	45	P	
55	**Mn**	1	**19.410**	ug/l	970.50	0.7	4500	45	P	
57	**Fe**	1	**443.700**	ug/l	22,185.00	1.3	450000	74	P	
59	**Co**	1	**19.850**	ug/l	992.50	1.9	4500	74	P	
60	**Ni**	1	**20.240**	ug/l	1,012.00	1.9	4500	74	P	
63	**Cu**	1	**10.130**	ug/l	506.50	2.3	4500	74	P	
66	**Zn**	1	**21.270**	ug/l	1,063.50	1.9	4500	74	P	
75	**As**	1	**79.900**	ug/l	3,995.00	1.3	4500	74	P	
78	**Se**	1	**78.800**	ug/l	3,940.00	2.0	4500	74	P	
88	**Sr**	1	**0.002**	ug/l	0.10	848.7	4500	74	P	
95	**Mo**	1	**95.190**	ug/l	4,759.50	0.3	4500	103	P	
109	**Ag**	1	**11.820**	ug/l	591.00	1.2	4500	103	P	
111	**Cd**	1	**1.971**	ug/l	98.55	0.4	4500	103	P	
118	**Sn**	1	**97.900**	ug/l	4,895.00	0.6	4500	103	P	
123	**Sb**	1	**57.460**	ug/l	2,873.00	1.0	4500	103	P	
135	**Ba**	1	**78.090**	ug/l	3,904.50	1.3	4500	103	P	
200	**Hg**	1	**0.966**	ug/l	48.31	1.6	45	209	P	
205	**Tl**	1	**75.120**	ug/l	3,756.00	2.5	4500	209	A	
208	**Pb**	1	**19.500**	ug/l	975.00	1.8	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	64.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66410	1.31	70500	**94.2**	30	-	125	
45	Sc	1	1717356	0.53	1703000	**100.8**	30	-	125	
74	Ge	1	3754331	1.58	3864000	**97.2**	30	-	125	
103	Rh	1	5287416	0.55	5496000	**96.2**	30	-	125	
165	Ho	1	2391056	2.12	2487000	**96.1**	30	-	125	
175	Lu	1	2029255	0.54	2103000	**96.5**	30	-	125	
209	Bi	1	2448706	1.50	2573000	**95.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\159SMPL.D\159SMPL.D#
Date Acquired: Sep 14 2011 03:49 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95245/20-A Vial Number: 4409
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.892**	ug/l	94.60	6.0	900	6	P	
23	**Na**	1	**409.700**	ug/l	20,485.00	1.8	450000	6	A	
24	**Mg**	1	**414.100**	ug/l	20,705.00	1.0	450000	6	P	
27	**Al**	1	**81.240**	ug/l	4,062.00	1.0	450000	6	P	
31	**P**	1	**389.300**	ug/l	19,465.00	0.7	450000	6	P	
39	**K**	1	**430.700**	ug/l	21,535.00	2.1	450000	45	P	
44	**Ca**	1	**406.500**	ug/l	20,325.00	1.8	450000	45	P	
47	**Ti**	1	**95.310**	ug/l	4,765.50	0.6	4500	45	P	
51	**V**	1	**19.360**	ug/l	968.00	0.9	4500	45	P	
52	**Cr**	1	**7.735**	ug/l	386.75	0.7	4500	45	P	
55	**Mn**	1	**19.820**	ug/l	991.00	0.7	4500	45	P	
57	**Fe**	1	**436.400**	ug/l	21,820.00	2.6	450000	74	P	
59	**Co**	1	**19.540**	ug/l	977.00	1.5	4500	74	P	
60	**Ni**	1	**19.840**	ug/l	992.00	3.4	4500	74	P	
63	**Cu**	1	**10.310**	ug/l	515.50	2.7	4500	74	P	
66	**Zn**	1	**20.380**	ug/l	1,019.00	1.9	4500	74	P	
75	**As**	1	**79.660**	ug/l	3,983.00	1.3	4500	74	P	
78	**Se**	1	**77.550**	ug/l	3,877.50	1.0	4500	74	P	
88	**Sr**	1	**-0.006**	ug/l	-0.32	38.6	4500	74	P	
95	**Mo**	1	**94.970**	ug/l	4,748.50	0.6	4500	103	P	
109	**Ag**	1	**11.730**	ug/l	586.50	0.4	4500	103	P	
111	**Cd**	1	**1.956**	ug/l	97.80	4.0	4500	103	P	
118	**Sn**	1	**97.590**	ug/l	4,879.50	0.6	4500	103	P	
123	**Sb**	1	**56.510**	ug/l	2,825.50	0.7	4500	103	P	
135	**Ba**	1	**77.320**	ug/l	3,866.00	0.4	4500	103	P	
200	**Hg**	1	**0.937**	ug/l	46.87	3.7	45	209	P	
205	**Tl**	1	**74.510**	ug/l	3,725.50	2.7	4500	209	A	
208	**Pb**	1	**19.480**	ug/l	974.00	1.7	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	461.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67223	1.45	70500	**95.4**	30	-	125	
45	Sc	1	1701183	1.34	1703000	**99.9**	30	-	125	
74	Ge	1	3814171	0.94	3864000	**98.7**	30	-	125	
103	Rh	1	5295135	0.18	5496000	**96.3**	30	-	125	
165	Ho	1	2397938	0.54	2487000	**96.4**	30	-	125	
175	Lu	1	2007676	1.07	2103000	**95.5**	30	-	125	
209	Bi	1	2451564	0.85	2573000	**95.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\160SMPL.D\160SMPL.D#
Date Acquired: Sep 14 2011 03:53 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.960**	ug/l	46.96	1.8	900	6	P	
23	**Na**	1	**4910.000**	ug/l	4,910.00	1.4	450000	6	A	
24	**Mg**	1	**4952.000**	ug/l	4,952.00	0.8	450000	6	A	
27	**Al**	1	**490.900**	ug/l	490.90	1.4	450000	6	P	
31	**P**	1	**4932.000**	ug/l	4,932.00	0.6	450000	6	P	
39	**K**	1	**4890.000**	ug/l	4,890.00	1.8	450000	45	A	
44	**Ca**	1	**4785.000**	ug/l	4,785.00	0.9	450000	45	P	
47	**Ti**	1	**46.970**	ug/l	46.97	1.6	4500	45	P	
51	**V**	1	**46.490**	ug/l	46.49	0.7	4500	45	P	
52	**Cr**	1	**46.930**	ug/l	46.93	0.5	4500	45	P	
55	**Mn**	1	**47.290**	ug/l	47.29	0.0	4500	45	P	
57	**Fe**	1	**4853.000**	ug/l	4,853.00	1.5	450000	74	A	
59	**Co**	1	**46.850**	ug/l	46.85	0.9	4500	74	P	
60	**Ni**	1	**47.450**	ug/l	47.45	0.7	4500	74	P	
63	**Cu**	1	**47.840**	ug/l	47.84	1.0	4500	74	P	
66	**Zn**	1	**47.030**	ug/l	47.03	0.9	4500	74	P	
75	**As**	1	**47.370**	ug/l	47.37	0.6	4500	74	P	
78	**Se**	1	**47.610**	ug/l	47.61	0.3	4500	74	P	
88	**Sr**	1	**48.000**	ug/l	48.00	0.4	4500	74	P	
95	**Mo**	1	**47.550**	ug/l	47.55	0.4	4500	103	P	
109	**Ag**	1	**47.200**	ug/l	47.20	1.1	4500	103	P	
111	**Cd**	1	**47.230**	ug/l	47.23	1.9	4500	103	P	
118	**Sn**	1	**48.000**	ug/l	48.00	1.0	4500	103	P	
123	**Sb**	1	**47.600**	ug/l	47.60	1.4	4500	103	P	
135	**Ba**	1	**47.740**	ug/l	47.74	2.0	4500	103	P	
200	**Hg**	1	**2.373**	ug/l	2.37	3.4	45	209	P	
205	**Tl**	1	**45.980**	ug/l	45.98	2.1	4500	209	P	
208	**Pb**	1	**47.340**	ug/l	47.34	3.0	4500	209	P	
238	**U**	1	**47.430**	ug/l	47.43	1.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67034	0.70	70500	**95.1**	30	-	125	
45	Sc	1	1728129	0.13	1703000	**101.5**	30	-	125	
74	Ge	1	3850290	0.13	3864000	**99.6**	30	-	125	
103	Rh	1	5189877	0.58	5496000	**94.4**	30	-	125	
165	Ho	1	2368169	0.69	2487000	**95.2**	30	-	125	
175	Lu	1	1983223	0.40	2103000	**94.3**	30	-	125	
209	Bi	1	2370897	2.93	2573000	**92.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\161SMPL.D\161SMPL.D#
Date Acquired: Sep 14 2011 03:58 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.00	195.7	900	6	P	
23	**Na**	1	**-6.444**	ug/l	-6.44	7.4	450000	6	P	
24	**Mg**	1	**0.917**	ug/l	0.92	2.8	450000	6	P	
27	**Al**	1	**0.371**	ug/l	0.37	39.9	450000	6	P	
31	**P**	1	**-1.834**	ug/l	-1.83	47.4	450000	6	P	
39	**K**	1	**7.187**	ug/l	7.19	10.2	450000	45	P	
44	**Ca**	1	**1.153**	ug/l	1.15	40.3	450000	45	P	
47	**Ti**	1	**0.090**	ug/l	0.09	17.4	4500	45	P	
51	**V**	1	**0.012**	ug/l	0.01	41.8	4500	45	P	
52	**Cr**	1	**-0.005**	ug/l	-0.01	235.3	4500	45	P	
55	**Mn**	1	**0.059**	ug/l	0.06	13.2	4500	45	P	
57	**Fe**	1	**1.993**	ug/l	1.99	21.3	450000	74	P	
59	**Co**	1	**0.012**	ug/l	0.01	2.8	4500	74	P	
60	**Ni**	1	**0.008**	ug/l	0.01	76.8	4500	74	P	
63	**Cu**	1	**0.055**	ug/l	0.05	52.4	4500	74	P	
66	**Zn**	1	**0.006**	ug/l	0.01	85.9	4500	74	P	
75	**As**	1	**0.027**	ug/l	0.03	5.5	4500	74	P	
78	**Se**	1	**0.150**	ug/l	0.15	21.4	4500	74	P	
88	**Sr**	1	**0.006**	ug/l	0.01	106.5	4500	74	P	
95	**Mo**	1	**0.146**	ug/l	0.15	16.7	4500	103	P	
109	**Ag**	1	**0.009**	ug/l	0.01	18.0	4500	103	P	
111	**Cd**	1	**0.020**	ug/l	0.02	71.0	4500	103	P	
118	**Sn**	1	**0.500**	ug/l	0.50	22.7	4500	103	P	
123	**Sb**	1	**0.226**	ug/l	0.23	19.7	4500	103	P	
135	**Ba**	1	**0.023**	ug/l	0.02	73.2	4500	103	P	
200	**Hg**	1	**0.018**	ug/l	0.02	16.8	45	209	P	
205	**Tl**	1	**0.468**	ug/l	0.47	11.3	4500	209	P	
208	**Pb**	1	**0.013**	ug/l	0.01	33.9	4500	209	P	
238	**U**	1	**0.017**	ug/l	0.02	10.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67880	0.47	70500	**96.3**	30	-	125	
45	Sc	1	1734331	0.46	1703000	**101.8**	30	-	125	
74	Ge	1	3840639	0.61	3864000	**99.4**	30	-	125	
103	Rh	1	5314371	0.75	5496000	**96.7**	30	-	125	
165	Ho	1	2381349	0.65	2487000	**95.8**	30	-	125	
175	Lu	1	2008084	1.55	2103000	**95.5**	30	-	125	
209	Bi	1	2421096	1.04	2573000	**94.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\162SMPL.D\162SMPL.D#
Date Acquired: Sep 14 2011 04:02 am Acq. Method: 00He_ALL.M
Sample Name: 580-28549-D-1-A Vial Number: 4501
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.234**	ug/l	1.17	17.3	900	6	P	
23	**Na**	1	**684500.000**	ug/l	3,422,500.00	0.9	450000	6	A	Fail
24	**Mg**	1	**29740.000**	ug/l	148,700.00	0.7	450000	6	A	
27	**Al**	1	**137.700**	ug/l	688.50	2.1	450000	6	P	
31	**P**	1	**2201.000**	ug/l	11,005.00	1.8	450000	6	P	
39	**K**	1	**187000.000**	ug/l	935,000.00	1.4	450000	45	A	
44	**Ca**	1	**15460.000**	ug/l	77,300.00	3.1	450000	45	A	
47	**Ti**	1	**210.500**	ug/l	1,052.50	2.4	4500	45	P	
51	**V**	1	**81.100**	ug/l	405.50	3.7	4500	45	P	
52	**Cr**	1	**116.400**	ug/l	582.00	2.6	4500	45	A	
55	**Mn**	1	**101.000**	ug/l	505.00	3.7	4500	45	P	
57	**Fe**	1	**1755.000**	ug/l	8,775.00	0.7	450000	74	P	
59	**Co**	1	**8.328**	ug/l	41.64	2.2	4500	74	P	
60	**Ni**	1	**132.800**	ug/l	664.00	0.9	4500	74	P	
63	**Cu**	1	**3.715**	ug/l	18.58	4.1	4500	74	P	
66	**Zn**	1	**116.000**	ug/l	580.00	1.4	4500	74	P	
75	**As**	1	**32.890**	ug/l	164.45	1.3	4500	74	P	
78	**Se**	1	**0.754**	ug/l	3.77	8.8	4500	74	P	
88	**Sr**	1	**539.900**	ug/l	2,699.50	1.5	4500	74	A	
95	**Mo**	1	**11.650**	ug/l	58.25	2.0	4500	103	P	
109	**Ag**	1	**0.024**	ug/l	0.12	35.8	4500	103	P	
111	**Cd**	1	**0.553**	ug/l	2.76	15.9	4500	103	P	
118	**Sn**	1	**44.850**	ug/l	224.25	1.2	4500	103	P	
123	**Sb**	1	**3.549**	ug/l	17.75	0.8	4500	103	P	
135	**Ba**	1	**249.200**	ug/l	1,246.00	1.2	4500	103	P	
200	**Hg**	1	**0.118**	ug/l	0.59	6.3	45	209	P	
205	**Tl**	1	**0.228**	ug/l	1.14	14.5	4500	209	P	
208	**Pb**	1	**8.767**	ug/l	43.84	1.9	4500	209	P	
238	**U**	1	**0.155**	ug/l	0.78	7.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67622	3.29	70500	**95.9**	30	-	125	
45	Sc	1	1625813	4.41	1703000	**95.5**	30	-	125	
74	Ge	1	3315056	1.51	3864000	**85.8**	30	-	125	
103	Rh	1	4174005	1.05	5496000	**75.9**	30	-	125	
165	Ho	1	1974053	1.86	2487000	**79.4**	30	-	125	
175	Lu	1	1646776	1.30	2103000	**78.3**	30	-	125	
209	Bi	1	1784981	1.81	2573000	**69.4**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\163SMPL.D\163SMPL.D#
Date Acquired: Sep 14 2011 04:06 am Acq. Method: 00He_ALL.M
Sample Name: 580-28549-D-2-A Vial Number: 4502
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.154**	ug/l	0.77	21.2	900	6	P	
23	**Na**	1	**479400.000**	ug/l	2,397,000.00	0.8	450000	6	A	Fail
24	**Mg**	1	**30540.000**	ug/l	152,700.00	0.6	450000	6	A	
27	**Al**	1	**109.300**	ug/l	546.50	0.3	450000	6	P	
31	**P**	1	**2032.000**	ug/l	10,160.00	1.4	450000	6	P	
39	**K**	1	**136600.000**	ug/l	683,000.00	2.5	450000	45	A	
44	**Ca**	1	**26290.000**	ug/l	131,450.00	2.0	450000	45	A	
47	**Ti**	1	**162.600**	ug/l	813.00	1.9	4500	45	P	
51	**V**	1	**42.950**	ug/l	214.75	2.0	4500	45	P	
52	**Cr**	1	**88.340**	ug/l	441.70	3.2	4500	45	P	
55	**Mn**	1	**148.500**	ug/l	742.50	3.2	4500	45	A	
57	**Fe**	1	**1223.000**	ug/l	6,115.00	0.7	450000	74	P	
59	**Co**	1	**8.008**	ug/l	40.04	0.7	4500	74	P	
60	**Ni**	1	**137.100**	ug/l	685.50	0.1	4500	74	P	
63	**Cu**	1	**22.020**	ug/l	110.10	1.4	4500	74	P	
66	**Zn**	1	**133.100**	ug/l	665.50	1.0	4500	74	P	
75	**As**	1	**11.670**	ug/l	58.35	1.8	4500	74	P	
78	**Se**	1	**0.688**	ug/l	3.44	12.7	4500	74	P	
88	**Sr**	1	**599.100**	ug/l	2,995.50	0.9	4500	74	A	
95	**Mo**	1	**6.993**	ug/l	34.97	0.9	4500	103	P	
109	**Ag**	1	**0.029**	ug/l	0.15	9.1	4500	103	P	
111	**Cd**	1	**0.472**	ug/l	2.36	3.0	4500	103	P	
118	**Sn**	1	**51.680**	ug/l	258.40	1.7	4500	103	P	
123	**Sb**	1	**3.680**	ug/l	18.40	1.4	4500	103	P	
135	**Ba**	1	**223.900**	ug/l	1,119.50	1.6	4500	103	P	
200	**Hg**	1	**0.141**	ug/l	0.70	3.7	45	209	P	
205	**Tl**	1	**0.147**	ug/l	0.73	16.6	4500	209	P	
208	**Pb**	1	**16.560**	ug/l	82.80	2.1	4500	209	P	
238	**U**	1	**0.116**	ug/l	0.58	1.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74574	0.77	70500	**105.8**	30	-	125	
45	Sc	1	1698882	3.12	1703000	**99.8**	30	-	125	
74	Ge	1	3497574	1.11	3864000	**90.5**	30	-	125	
103	Rh	1	4381480	1.37	5496000	**79.7**	30	-	125	
165	Ho	1	2049885	0.75	2487000	**82.4**	30	-	125	
175	Lu	1	1719553	1.07	2103000	**81.8**	30	-	125	
209	Bi	1	1863871	0.64	2573000	**72.4**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\166SMPL.D\166SMPL.D#
Date Acquired: Sep 14 2011 04:19 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**44.160**	ug/l	44.16	1.3	900	6	P	
23	**Na**	1	**4531.000**	ug/l	4,531.00	1.3	450000	6	A	
24	**Mg**	1	**4496.000**	ug/l	4,496.00	0.8	450000	6	A	
27	**Al**	1	**450.000**	ug/l	450.00	1.6	450000	6	P	
31	**P**	1	**4522.000**	ug/l	4,522.00	1.1	450000	6	P	
39	**K**	1	**5012.000**	ug/l	5,012.00	1.5	450000	45	A	
44	**Ca**	1	**4797.000**	ug/l	4,797.00	1.4	450000	45	P	
47	**Ti**	1	**46.780**	ug/l	46.78	1.8	4500	45	P	
51	**V**	1	**46.150**	ug/l	46.15	1.2	4500	45	P	
52	**Cr**	1	**46.170**	ug/l	46.17	1.7	4500	45	P	
55	**Mn**	1	**46.420**	ug/l	46.42	1.6	4500	45	P	
57	**Fe**	1	**4940.000**	ug/l	4,940.00	1.3	450000	74	A	
59	**Co**	1	**48.000**	ug/l	48.00	1.5	4500	74	P	
60	**Ni**	1	**48.650**	ug/l	48.65	1.6	4500	74	P	
63	**Cu**	1	**48.740**	ug/l	48.74	1.2	4500	74	P	
66	**Zn**	1	**47.420**	ug/l	47.42	1.1	4500	74	P	
75	**As**	1	**47.790**	ug/l	47.79	1.0	4500	74	P	
78	**Se**	1	**48.140**	ug/l	48.14	0.8	4500	74	P	
88	**Sr**	1	**47.900**	ug/l	47.90	1.0	4500	74	P	
95	**Mo**	1	**46.890**	ug/l	46.89	1.2	4500	103	P	
109	**Ag**	1	**47.040**	ug/l	47.04	1.1	4500	103	P	
111	**Cd**	1	**46.990**	ug/l	46.99	1.1	4500	103	P	
118	**Sn**	1	**47.250**	ug/l	47.25	1.2	4500	103	P	
123	**Sb**	1	**47.280**	ug/l	47.28	0.5	4500	103	P	
135	**Ba**	1	**47.590**	ug/l	47.59	1.3	4500	103	P	
200	**Hg**	1	**2.331**	ug/l	2.33	1.8	45	209	P	
205	**Tl**	1	**45.180**	ug/l	45.18	3.2	4500	209	P	
208	**Pb**	1	**47.210**	ug/l	47.21	1.0	4500	209	P	
238	**U**	1	**47.050**	ug/l	47.05	1.1	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80709	0.63	70500	**114.5**	30	-	125	
45	Sc	1	1820100	1.51	1703000	**106.9**	30	-	125	
74	Ge	1	3866422	0.95	3864000	**100.1**	30	-	125	
103	Rh	1	5155538	0.59	5496000	**93.8**	30	-	125	
165	Ho	1	2325249	0.84	2487000	**93.5**	30	-	125	
175	Lu	1	1948733	0.94	2103000	**92.7**	30	-	125	
209	Bi	1	2307154	1.17	2573000	**89.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091311Z.B\167SMPL.D\167SMPL.D#
Date Acquired: Sep 14 2011 04:24 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 07:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091311Z.B\003CALB.D\003CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.007**	ug/l	0.01	113.8	900	6	P	
23	**Na**	1	**-15.550**	ug/l	-15.55	2.1	450000	6	P	
24	**Mg**	1	**0.931**	ug/l	0.93	15.7	450000	6	P	
27	**Al**	1	**0.244**	ug/l	0.24	47.7	450000	6	P	
31	**P**	1	**-0.176**	ug/l	-0.18	992.6	450000	6	P	
39	**K**	1	**12.690**	ug/l	12.69	16.1	450000	45	P	
44	**Ca**	1	**0.871**	ug/l	0.87	73.4	450000	45	P	
47	**Ti**	1	**0.080**	ug/l	0.08	25.5	4500	45	P	
51	**V**	1	**0.035**	ug/l	0.03	28.0	4500	45	P	
52	**Cr**	1	**0.002**	ug/l	0.00	698.9	4500	45	P	
55	**Mn**	1	**0.041**	ug/l	0.04	18.3	4500	45	P	
57	**Fe**	1	**2.059**	ug/l	2.06	4.5	450000	74	P	
59	**Co**	1	**0.012**	ug/l	0.01	26.5	4500	74	P	
60	**Ni**	1	**0.005**	ug/l	0.00	169.2	4500	74	P	
63	**Cu**	1	**0.098**	ug/l	0.10	32.0	4500	74	P	
66	**Zn**	1	**0.023**	ug/l	0.02	47.5	4500	74	P	
75	**As**	1	**0.030**	ug/l	0.03	98.7	4500	74	P	
78	**Se**	1	**0.279**	ug/l	0.28	22.1	4500	74	P	
88	**Sr**	1	**0.004**	ug/l	0.00	12.6	4500	74	P	
95	**Mo**	1	**0.122**	ug/l	0.12	19.3	4500	103	P	
109	**Ag**	1	**0.008**	ug/l	0.01	10.1	4500	103	P	
111	**Cd**	1	**0.013**	ug/l	0.01	54.8	4500	103	P	
118	**Sn**	1	**0.265**	ug/l	0.26	17.2	4500	103	P	
123	**Sb**	1	**0.088**	ug/l	0.09	9.9	4500	103	P	
135	**Ba**	1	**0.015**	ug/l	0.01	93.3	4500	103	P	
200	**Hg**	1	**0.018**	ug/l	0.02	13.5	45	209	P	
205	**Tl**	1	**0.301**	ug/l	0.30	7.1	4500	209	P	
208	**Pb**	1	**0.013**	ug/l	0.01	55.0	4500	209	P	
238	**U**	1	**0.018**	ug/l	0.02	13.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79845	0.75	70500	**113.3**	30	-	125	
45	Sc	1	1817900	1.58	1703000	**106.7**	30	-	125	
74	Ge	1	3862573	0.70	3864000	**100.0**	30	-	125	
103	Rh	1	5291975	0.49	5496000	**96.3**	30	-	125	
165	Ho	1	2351192	1.64	2487000	**94.5**	30	-	125	
175	Lu	1	1957313	2.32	2103000	**93.1**	30	-	125	
209	Bi	1	2378325	1.14	2573000	**92.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

Step	Mass	Element	r	b(blank)	DL	BEC	Unit
1	6	Li	0.0000	--- ---	---	ug/l	
1	7	Li	0.0000	--- ---	---	ug/l	
1	9	Be	1.0000	1.960E-03	1.544E-02	1.296E-02	ug/l
1	23	Na	1.0000	64.15 1.292	83.90	ug/l	
1	24	Mg	1.0000	9.742E-02	1.388E-01	2.151E-01	ug/l
1	27	Al	1.0000	2.773E-01	2.468E-01	9.548E-01	ug/l
1	31	P	1.0000	4.675E-01	1.796	21.04 ug/l	
1	39	K	1.0000	3.940 15.77	101.8	ug/l	
1	44	Ca	1.0000	1.037E-02	1.986	5.644 ug/l	
1	45	Sc	0.0000	--- ---	---	ug/l	
1	47	Ti	1.0000	4.438E-04	3.559E-02	4.447E-02	ug/l
1	51	V	1.0000	8.911E-02	9.312E-02	3.863E-01	ug/l
1	52	Cr	1.0000	3.501E-02	4.393E-02	1.338E-01	ug/l
1	55	Mn	1.0000	4.181E-03	1.160E-02	2.087E-02	ug/l
1	57	Fe	0.9998	3.547E-03	5.859E-01	1.342 ug/l	
1	59	Co	0.9999	2.432E-04	2.591E-03	1.496E-03	ug/l
1	60	Ni	0.9999	1.346E-03	1.537E-02	3.257E-02	ug/l
1	63	Cu	0.9998	1.693E-02	8.035E-03	1.591E-01	ug/l
1	66	Zn	0.9999	1.789E-03	7.660E-02	7.673E-02	ug/l
1	74	Ge	0.0000	--- ---	---	ug/l	
1	75	As	1.0000	2.205E-03	3.185E-02	1.243E-01	ug/l
1	78	Se	1.0000	1.343E-03	9.682E-02	7.434E-01	ug/l
1	88	Sr	1.0000	5.760E-03	2.762E-02	5.193E-02	ug/l
1	95	Mo	1.0000	7.364E-04	4.073E-03	2.065E-02	ug/l
1	103	Rh	0.0000	--- ---	---	ug/l	
1	109	Ag	1.0000	3.454E-04	3.984E-03	3.165E-03	ug/l
1	111	Cd	1.0000	1.160E-04	2.232E-02	5.904E-03	ug/l
1	118	Sn	1.0000	1.003E-03	3.778E-03	2.274E-02	ug/l
1	123	Sb	1.0000	7.526E-04	1.013E-02	1.488E-02	ug/l
1	135	Ba	1.0000	1.720E-04	2.355E-02	1.403E-02	ug/l
1	165	Ho	0.0000	--- ---	---	ug/l	
1	175	Lu	0.0000	--- ---	---	ug/l	
1	200	Hg	1.0000	4.386E-04	8.103E-03	8.385E-03	ug/l
1	205	Tl	1.0000	6.497E-03	3.569E-03	1.443E-02	ug/l
1	208	Pb	1.0000	2.162E-01	3.109E-02	3.564E-01	ug/l
1	209	Bi	0.0000	--- ---	---	ug/l	
1	238	U	1.0000	1.753E-03	2.351E-03	2.816E-03	ug/l

TA Seattle Calibration Blank QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#
Date Acquired: Sep 14 2011 09:09 am Acq. Method: 00He_ALL.M
Sample Name: STD0 Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211
Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Tune # Name
Operator: FCW ICP-MS ID#SEA44 1 c:\icpchem\1\7500\he.u
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C 2 C:\ICPCHEM\1\7500\
Last Cal. Update: Sep 14 2011 02:47 pm 3 C:\ICPCHEM\1\7500\
ISTD Ref File : --- Sample Type: CalBlk

QC&ISTD Elements

Element		Tune	CPS Mean		SD	RSD(%)
6	Li	1	127459.1	P	625.20	0.49
7	Li	1	10325.9	P	295.30	2.86
9	Be	1	5.0	P	2.00	40.00
23	Na	1	163534.4	P	290.60	0.18
24	Mg	1	248.3	P	53.46	21.53
27	Al	1	706.7	P	59.66	8.44
31	P	1	1191.7	P	32.15	2.70
39	K	1	132183.3	P	838.40	0.63
44	Ca	1	347.7	P	31.21	8.98
45	Sc	1	1680407.0	A	80490.00	4.79
47	Ti	1	15.0	P	4.58	30.55
51	V	1	2987.1	P	105.40	3.53
52	Cr	1	1173.4	P	92.79	7.91
55	Mn	1	140.0	P	22.91	16.36
56	Fe	1		P		
57	Fe	1	268.3	P	40.42	15.06
59	Co	1	18.3	P	10.41	56.78
60	Ni	1	101.7	P	15.28	15.03
63	Cu	1	1280.1	P	10.00	0.78
66	Zn	1	135.0	P	43.59	32.29
74	Ge	1	3780752.0	A	42410.00	1.12
75	As	1	166.7	P	13.61	8.17
78	Se	1	101.5	P	3.28	3.23
88	Sr	1	435.5	P	76.80	17.63
95	Mo	1	78.3	P	5.77	7.37
99	(Mo)	1		P		
103	Rh	1	5316794.0	A	49400.00	0.93
106	(Cd)	1		P		
108	(Cd)	1		P		
109	Ag	1	36.7	P	15.28	41.67
111	Cd	1	12.3	P	15.37	125.45
118	Sn	1	106.7	P	5.77	5.41
123	Sb	1	80.0	P	18.03	22.54
135	Ba	1	18.3	P	10.41	56.78
165	Ho	1	2391643.0	A	46180.00	1.93
175	Lu	1	2019946.0	A	42380.00	2.10
200	Hg	1	22.0	P	6.93	31.49
205	Tl	1	326.7	P	29.30	8.97
206	Pb	1		P		
207	Pb	1		P		
208	Pb	1	10865.5	P	308.60	2.84
209	Bi	1	2513183.0	A	37680.00	1.50
238	U	1	88.3	P	25.66	29.05

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091411AM.B\005CALS.D\005CALS.D#

Date Acquired: Sep 14 2011 09:14 am

Acq. Method: 00He_ALL.M

Sample Name: **STD1**

Vial Number: 1305

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

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Last Cal. Update: Sep 14 2011 02:47 pm

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	43.3	P	10.69	24.67
23	Na	6	1	211043.3	P	885.70	0.42
24	Mg	6	1	12242.7	P	300.00	2.45
27	Al	6	1	1746.8	P	38.19	2.19
31	P	6	1	1670.1	P	126.80	7.59
39	K	45	1	154378.2	P	1387.00	0.90
44	Ca	45	1	1535.0	P	41.89	2.73
47	Ti	45	1	52.0	P	9.00	17.31
51	V	45	1	4040.7	P	92.64	2.29
52	Cr	45	1	2293.6	P	72.36	3.15
55	Mn	45	1	2688.7	P	42.53	1.58
57	Fe	74	1	2547.0	P	142.70	5.60
59	Co	74	1	1370.1	P	44.45	3.24
60	Ni	74	1	953.4	P	45.37	4.76
63	Cu	74	1	4587.6	P	57.99	1.26
66	Zn	74	1	2527.0	P	105.40	4.17
75	As	74	1	300.7	P	37.54	12.49
78	Se	74	1	126.8	P	8.62	6.80
88	Sr	74	1	1517.6	P	95.60	6.30
95	Mo	103	1	461.7	P	35.47	7.68
109	Ag	103	1	1218.4	P	40.11	3.29
111	Cd	103	1	203.3	P	42.35	20.83
118	Sn	103	1	3050.4	P	77.97	2.56
123	Sb	103	1	566.7	P	71.82	12.67
135	Ba	103	1	188.3	P	16.07	8.53
200	Hg	209	1	35.3	P	7.23	20.47
205	Tl	209	1	2475.3	P	70.56	2.85
208	Pb	209	1	15270.9	P	246.80	1.62
238	U	209	1	3077.1	P	22.54	0.73

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	126717	1.80	127500	99.4	30 - 125	
45	Sc	1	1669078	2.81	1680000	99.3	30 - 125	
74	Ge	1	3753183	1.59	3781000	99.3	30 - 125	
103	Rh	1	5296638	1.02	5317000	99.6	30 - 125	
165	Ho	1	2411292	2.56	2392000	100.8	30 - 125	
175	Lu	1	2032102	1.03	2020000	100.6	30 - 125	
209	Bi	1	2511575	2.38	2513000	99.9	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091411AM.B\006CALS.D\006CALS.D#

Date Acquired: Sep 14 2011 09:18 am

Acq. Method: 00He_ALL.M

Sample Name: **STD2**

Vial Number: 1304

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

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Last Cal. Update: Sep 14 2011 02:47 pm

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ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	351.7	P	17.62	5.01
23	Na	6	1	365034.8	P	1589.00	0.44
24	Mg	6	1	116866.0	P	622.50	0.53
27	Al	6	1	12015.8	P	155.60	1.30
31	P	6	1	6453.4	P	20.24	0.31
39	K	45	1	272672.3	P	2246.00	0.82
44	Ca	45	1	6927.8	P	149.00	2.15
47	Ti	45	1	349.7	P	8.02	2.29
51	V	45	1	10771.5	P	107.00	0.99
52	Cr	45	1	10055.8	P	365.70	3.64
55	Mn	45	1	7263.9	P	396.30	5.46
57	Fe	74	1	20548.7	P	541.10	2.63
59	Co	74	1	13021.9	P	511.50	3.93
60	Ni	74	1	3537.2	P	104.00	2.94
63	Cu	74	1	10434.5	P	181.90	1.74
66	Zn	74	1	2898.7	P	95.06	3.28
75	As	74	1	1508.8	P	27.74	1.84
78	Se	74	1	244.3	P	2.57	1.05
88	Sr	74	1	9120.3	P	177.80	1.95
95	Mo	103	1	3747.3	P	202.70	5.41
109	Ag	103	1	11547.3	P	72.95	0.63
111	Cd	103	1	2062.4	P	96.02	4.66
118	Sn	103	1	5084.5	P	145.20	2.86
123	Sb	103	1	5376.3	P	85.04	1.58
135	Ba	103	1	1268.4	P	185.60	14.63
200	Hg	209	1	161.7	P	16.65	10.30
205	Tl	209	1	22264.9	P	231.40	1.04
208	Pb	209	1	41698.5	P	483.10	1.16
238	U	209	1	30527.7	P	680.10	2.23

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	126857	0.09	127500	99.5	30 - 125	
45	Sc	1	1709171	1.79	1680000	101.7	30 - 125	
74	Ge	1	3815226	0.34	3781000	100.9	30 - 125	
103	Rh	1	5344185	0.84	5317000	100.5	30 - 125	
165	Ho	1	2410495	1.25	2392000	100.8	30 - 125	
175	Lu	1	2048929	1.95	2020000	101.4	30 - 125	
209	Bi	1	2506843	2.24	2513000	99.8	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091411AM.B\007CALS.D\007CALS.D#

Date Acquired: Sep 14 2011 09:22 am

Acq. Method: 00He_ALL.M

Sample Name: **STD3**

Vial Number: 1303

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

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Last Cal. Update: Sep 14 2011 02:47 pm

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	3609.2	P	33.01	0.91
23	Na	6	1	2063020.0	A	32970.00	1.60
24	Mg	6	1	1136040.0	A	5877.00	0.52
27	Al	6	1	71200.1	P	730.30	1.03
31	P	6	1	54006.9	P	408.10	0.76
39	K	45	1	1478913.0	A	12610.00	0.85
44	Ca	45	1	62359.1	P	442.20	0.71
47	Ti	45	1	3384.1	P	59.52	1.76
51	V	45	1	80366.4	P	727.00	0.90
52	Cr	45	1	89109.9	P	1315.00	1.48
55	Mn	45	1	68390.6	P	503.10	0.74
57	Fe	74	1	203814.1	P	1085.00	0.53
59	Co	74	1	127673.0	P	692.30	0.54
60	Ni	74	1	32893.2	P	90.27	0.27
63	Cu	74	1	88086.0	P	1387.00	1.57
66	Zn	74	1	18949.6	P	494.00	2.61
75	As	74	1	13754.9	P	139.50	1.01
78	Se	74	1	1494.4	P	72.01	4.82
88	Sr	74	1	85948.1	P	666.70	0.78
95	Mo	103	1	37132.6	P	543.80	1.46
109	Ag	103	1	117058.3	P	1114.00	0.95
111	Cd	103	1	21034.9	P	746.20	3.55
118	Sn	103	1	46508.7	P	308.70	0.66
123	Sb	103	1	52936.8	P	712.80	1.35
135	Ba	103	1	13075.6	P	250.90	1.92
200	Hg	209	1	1307.7	P	28.38	2.17
205	Tl	209	1	217603.0	P	3843.00	1.77
208	Pb	209	1	318290.8	P	2042.00	0.64
238	U	209	1	305747.0	P	2769.00	0.91

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	123068	0.26	127500	96.5	30 - 125	
45	Sc	1	1679352	2.17	1680000	100.0	30 - 125	
74	Ge	1	3798288	1.21	3781000	100.5	30 - 125	
103	Rh	1	5330884	1.30	5317000	100.3	30 - 125	
165	Ho	1	2410751	0.23	2392000	100.8	30 - 125	
175	Lu	1	2046388	1.31	2020000	101.3	30 - 125	
209	Bi	1	2498569	0.56	2513000	99.4	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091411AM.B\008CALS.D\008CALS.D#

Date Acquired: Sep 14 2011 09:27 am Acq. Method: 00He_ALL.M

Sample Name: **STD4** Vial Number: 1302

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211 Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

Last Cal. Update: Sep 14 2011 02:47 pm

ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	icpchem\1\7500\he.u
2	C:\ICPCHEM\1\7500\
3	C:\ICPCHEM\1\7500\

QC&ISTD Elements Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	18250.4	P	186.10	1.02
23	Na	6	1	9369261.0	A	189800.00	2.03
24	Mg	6	1	5513348.0	A	56200.00	1.02
27	Al	6	1	354011.7	P	3088.00	0.87
31	P	6	1	268664.0	P	2216.00	0.82
39	K	45	1	6710327.0	A	139900.00	2.08
44	Ca	45	1	313386.5	P	1148.00	0.37
47	Ti	45	1	16877.5	P	250.70	1.49
51	V	45	1	394964.4	P	2985.00	0.76
52	Cr	45	1	446251.7	P	1559.00	0.35
55	Mn	45	1	344029.3	P	1491.00	0.43
57	Fe	74	1	1044506.0	A	25130.00	2.41
59	Co	74	1	633968.5	P	5448.00	0.86
60	Ni	74	1	161641.2	P	2583.00	1.60
63	Cu	74	1	422090.1	P	2666.00	0.63
66	Zn	74	1	90223.3	P	752.70	0.83
75	As	74	1	68521.8	P	421.60	0.62
78	Se	74	1	7128.5	P	35.11	0.49
88	Sr	74	1	429815.3	P	4474.00	1.04
95	Mo	103	1	187310.1	P	444.10	0.24
109	Ag	103	1	574357.8	P	3039.00	0.53
111	Cd	103	1	103560.2	P	762.30	0.74
118	Sn	103	1	233812.3	P	535.70	0.23
123	Sb	103	1	267262.2	P	1631.00	0.61
135	Ba	103	1	64644.1	P	162.70	0.25
200	Hg	209	1	6458.5	P	134.10	2.08
205	Tl	209	1	1119997.0	A	9219.00	0.82
208	Pb	209	1	1512768.0	P	9753.00	0.64
238	U	209	1	1559571.0	A	4096.00	0.26

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	121429	1.07	127500	95.2	30 - 125	
45	Sc	1	1707428	1.32	1680000	101.6	30 - 125	
74	Ge	1	3837887	0.88	3781000	101.5	30 - 125	
103	Rh	1	5280301	1.23	5317000	99.3	30 - 125	
165	Ho	1	2429869	0.35	2392000	101.6	30 - 125	
175	Lu	1	2063154	0.37	2020000	102.1	30 - 125	
209	Bi	1	2468981	0.52	2513000	98.2	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091411AM.B\009CALS.D\009CALS.D#

Date Acquired: Sep 14 2011 09:31 am

Acq. Method: 00He_ALL.M

Sample Name: **STD5**

Vial Number: 1301

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 14 2011 02:47 pm

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	35644.8	P	213.20	0.60
23	Na	6	1	18171540.0	A	151000.00	0.83
24	Mg	6	1	10649090.0	A	59920.00	0.56
27	Al	6	1	683541.3	P	1379.00	0.20
31	P	6	1	525012.0	P	5200.00	0.99
39	K	45	1	12969800.0	A	130000.00	1.00
44	Ca	45	1	610232.9	P	4873.00	0.80
47	Ti	45	1	33197.4	P	181.50	0.55
51	V	45	1	768706.2	P	3743.00	0.49
52	Cr	45	1	870079.9	A	13270.00	1.53
55	Mn	45	1	663656.6	P	2989.00	0.45
57	Fe	74	1	1990112.0	A	22320.00	1.12
59	Co	74	1	1226962.0	A	3122.00	0.25
60	Ni	74	1	311782.9	P	1829.00	0.59
63	Cu	74	1	801708.6	P	2457.00	0.31
66	Zn	74	1	176470.3	P	1332.00	0.75
75	As	74	1	134449.5	P	482.40	0.36
78	Se	74	1	13748.0	P	117.80	0.86
88	Sr	74	1	839569.2	P	2073.00	0.25
95	Mo	103	1	369281.5	P	2383.00	0.65
109	Ag	103	1	1128667.0	A	9312.00	0.83
111	Cd	103	1	203237.4	P	1088.00	0.54
118	Sn	103	1	455623.1	P	2178.00	0.48
123	Sb	103	1	523053.3	P	2251.00	0.43
135	Ba	103	1	126806.4	P	1318.00	1.04
200	Hg	209	1	12661.9	P	13.12	0.10
205	Tl	209	1	2171614.0	A	36930.00	1.70
208	Pb	209	1	2938007.0	A	39690.00	1.35
238	U	209	1	2994571.0	A	12520.00	0.42

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	117632	0.49	127500	92.3	30 - 125	
45	Sc	1	1658693	2.57	1680000	98.7	30 - 125	
74	Ge	1	3791648	1.40	3781000	100.3	30 - 125	
103	Rh	1	5167700	0.77	5317000	97.2	30 - 125	
165	Ho	1	2381082	2.25	2392000	99.5	30 - 125	
175	Lu	1	2037100	1.41	2020000	100.8	30 - 125	
209	Bi	1	2415469	2.69	2513000	96.1	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\010SMPL.D\010SMPL.D#
Date Acquired: Sep 14 2011 09:35 am Acq. Method: 00He_ALL.M
Sample Name: ICV Vial Number: 1105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**38.900**	ug/l	38.90	1.6	900	6	P	
23	**Na**	1	**3978.000**	ug/l	3,978.00	0.6	450000	6	A	
24	**Mg**	1	**3974.000**	ug/l	3,974.00	0.6	450000	6	A	
27	**Al**	1	**393.600**	ug/l	393.60	0.5	450000	6	P	
31	**P**	1	**3915.000**	ug/l	3,915.00	0.6	450000	6	P	
39	**K**	1	**3998.000**	ug/l	3,998.00	2.1	450000	45	A	
44	**Ca**	1	**3987.000**	ug/l	3,987.00	1.7	450000	45	P	
47	**Ti**	1	**39.950**	ug/l	39.95	3.4	4500	45	P	
51	**V**	1	**40.160**	ug/l	40.16	1.8	4500	45	P	
52	**Cr**	1	**39.790**	ug/l	39.79	2.8	4500	45	P	
55	**Mn**	1	**40.070**	ug/l	40.07	3.5	4500	45	P	
57	**Fe**	1	**3968.000**	ug/l	3,968.00	1.2	450000	74	P	
59	**Co**	1	**40.280**	ug/l	40.28	0.7	4500	74	P	
60	**Ni**	1	**40.380**	ug/l	40.38	0.6	4500	74	P	
63	**Cu**	1	**41.110**	ug/l	41.11	1.1	4500	74	P	
66	**Zn**	1	**40.530**	ug/l	40.53	1.3	4500	74	P	
75	**As**	1	**39.890**	ug/l	39.89	1.6	4500	74	P	
78	**Se**	1	**39.850**	ug/l	39.85	1.7	4500	74	P	
88	**Sr**	1	**40.270**	ug/l	40.27	0.1	4500	74	P	
95	**Mo**	1	**39.560**	ug/l	39.56	1.8	4500	103	P	
109	**Ag**	1	**39.710**	ug/l	39.71	2.1	4500	103	P	
111	**Cd**	1	**39.860**	ug/l	39.86	2.0	4500	103	P	
118	**Sn**	1	**39.940**	ug/l	39.94	2.1	4500	103	P	
123	**Sb**	1	**39.750**	ug/l	39.75	1.7	4500	103	P	
135	**Ba**	1	**39.800**	ug/l	39.80	0.7	4500	103	P	
200	**Hg**	1	**2.029**	ug/l	2.03	1.7	45	209	P	
205	**Tl**	1	**39.370**	ug/l	39.37	2.1	4500	209	P	
208	**Pb**	1	**40.010**	ug/l	40.01	2.3	4500	209	P	
238	**U**	1	**39.900**	ug/l	39.90	2.7	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	120873	0.70	127500	**94.8**	30	-	125	
45	Sc	1	1687229	2.49	1680000	**100.4**	30	-	125	
74	Ge	1	3837512	0.76	3781000	**101.5**	30	-	125	
103	Rh	1	5299010	1.45	5317000	**99.7**	30	-	125	
165	Ho	1	2403633	1.39	2392000	**100.5**	30	-	125	
175	Lu	1	2051986	1.24	2020000	**101.6**	30	-	125	
209	Bi	1	2487374	2.52	2513000	**99.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\011SMPL.D\011SMPL.D#
Date Acquired: Sep 14 2011 09:40 am Acq. Method: 00He_ALL.M
Sample Name: ICB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.00	189.1	900	6	P	
23	**Na**	1	**6.328**	ug/l	6.33	23.1	450000	6	P	
24	**Mg**	1	**0.442**	ug/l	0.44	95.5	450000	6	P	
27	**Al**	1	**0.006**	ug/l	0.01	1463.3	450000	6	P	
31	**P**	1	**0.561**	ug/l	0.56	263.5	450000	6	P	
39	**K**	1	**0.538**	ug/l	0.54	563.1	450000	45	P	
44	**Ca**	1	**1.174**	ug/l	1.17	38.5	450000	45	P	
47	**Ti**	1	**0.016**	ug/l	0.02	82.6	4500	45	P	
51	**V**	1	**-0.030**	ug/l	-0.03	27.3	4500	45	P	
52	**Cr**	1	**0.009**	ug/l	0.01	152.1	4500	45	P	
55	**Mn**	1	**0.002**	ug/l	0.00	323.2	4500	45	P	
57	**Fe**	1	**1.568**	ug/l	1.57	21.1	450000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	125.5	4500	74	P	
60	**Ni**	1	**-0.006**	ug/l	-0.01	53.3	4500	74	P	
63	**Cu**	1	**0.045**	ug/l	0.05	29.9	4500	74	P	
66	**Zn**	1	**-0.007**	ug/l	-0.01	313.0	4500	74	P	
75	**As**	1	**0.019**	ug/l	0.02	85.0	4500	74	P	
78	**Se**	1	**0.034**	ug/l	0.03	99.6	4500	74	P	
88	**Sr**	1	**0.009**	ug/l	0.01	46.6	4500	74	P	
95	**Mo**	1	**0.117**	ug/l	0.12	12.5	4500	103	P	
109	**Ag**	1	**0.007**	ug/l	0.01	86.4	4500	103	P	
111	**Cd**	1	**0.009**	ug/l	0.01	97.2	4500	103	P	
118	**Sn**	1	**0.269**	ug/l	0.27	11.7	4500	103	P	
123	**Sb**	1	**0.083**	ug/l	0.08	20.2	4500	103	P	
135	**Ba**	1	**0.016**	ug/l	0.02	21.5	4500	103	P	
200	**Hg**	1	**0.025**	ug/l	0.03	8.9	45	209	P	
205	**Tl**	1	**0.224**	ug/l	0.22	5.6	4500	209	P	
208	**Pb**	1	**0.010**	ug/l	0.01	185.8	4500	209	P	
238	**U**	1	**0.016**	ug/l	0.02	5.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	123780	1.17	127500	**97.1**	30	-	125	
45	Sc	1	1710843	2.25	1680000	**101.8**	30	-	125	
74	Ge	1	3807096	1.83	3781000	**100.7**	30	-	125	
103	Rh	1	5430708	1.13	5317000	**102.1**	30	-	125	
165	Ho	1	2450932	1.88	2392000	**102.5**	30	-	125	
175	Lu	1	2064182	1.93	2020000	**102.2**	30	-	125	
209	Bi	1	2562918	1.82	2513000	**102.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\012SMPL.D\012SMPL.D#
Date Acquired: Sep 14 2011 09:44 am Acq. Method: 00He_ALL.M
Sample Name: CRI Vial Number: 1107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.934**	ug/l	1.93	2.9	900	6	P	
23	**Na**	1	**220.100**	ug/l	220.10	1.8	450000	6	P	
24	**Mg**	1	**213.900**	ug/l	213.90	1.3	450000	6	P	
27	**Al**	1	**19.740**	ug/l	19.74	1.4	450000	6	P	
31	**P**	1	**192.100**	ug/l	192.10	2.3	450000	6	P	
39	**K**	1	**217.200**	ug/l	217.20	3.8	450000	45	P	
44	**Ca**	1	**209.300**	ug/l	209.30	2.8	450000	45	P	
47	**Ti**	1	**2.072**	ug/l	2.07	2.8	4500	45	P	
51	**V**	1	**2.017**	ug/l	2.02	4.9	4500	45	P	
52	**Cr**	1	**2.095**	ug/l	2.10	2.2	4500	45	P	
55	**Mn**	1	**2.135**	ug/l	2.14	2.1	4500	45	P	
57	**Fe**	1	**206.300**	ug/l	206.30	2.2	450000	74	P	
59	**Co**	1	**2.103**	ug/l	2.10	2.9	4500	74	P	
60	**Ni**	1	**2.072**	ug/l	2.07	6.3	4500	74	P	
63	**Cu**	1	**2.180**	ug/l	2.18	3.9	4500	74	P	
66	**Zn**	1	**2.193**	ug/l	2.19	1.3	4500	74	P	
75	**As**	1	**2.039**	ug/l	2.04	3.3	4500	74	P	
78	**Se**	1	**2.064**	ug/l	2.06	6.0	4500	74	P	
88	**Sr**	1	**2.093**	ug/l	2.09	1.2	4500	74	P	
95	**Mo**	1	**2.072**	ug/l	2.07	2.0	4500	103	P	
109	**Ag**	1	**2.061**	ug/l	2.06	1.1	4500	103	P	
111	**Cd**	1	**1.995**	ug/l	2.00	6.2	4500	103	P	
118	**Sn**	1	**2.191**	ug/l	2.19	1.4	4500	103	P	
123	**Sb**	1	**2.092**	ug/l	2.09	1.5	4500	103	P	
135	**Ba**	1	**2.076**	ug/l	2.08	6.7	4500	103	P	
200	**Hg**	1	**0.127**	ug/l	0.13	7.2	45	209	P	
205	**Tl**	1	**2.037**	ug/l	2.04	1.2	4500	209	P	
208	**Pb**	1	**2.080**	ug/l	2.08	3.4	4500	209	P	
238	**U**	1	**1.998**	ug/l	2.00	3.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	121778	0.79	127500	**95.5**	30 - 125	
45	Sc	1	1665007	2.55	1680000	**99.1**	30 - 125	
74	Ge	1	3845988	2.11	3781000	**101.7**	30 - 125	
103	Rh	1	5388204	0.70	5317000	**101.3**	30 - 125	
165	Ho	1	2414335	2.24	2392000	**100.9**	30 - 125	
175	Lu	1	2065790	1.30	2020000	**102.3**	30 - 125	
209	Bi	1	2532910	2.62	2513000	**100.8**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\013SMPL.D\013SMPL.D#
Date Acquired: Sep 14 2011 09:48 am Acq. Method: 00He_ALL.M
Sample Name: ICSA Vial Number: 1101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.008**	ug/l	-0.01	37.4	900	6	P	
23	Na	1	**50950.000**	ug/l	50,950.00	1.2	450000	6	A	
24	Mg	1	**20150.000**	ug/l	20,150.00	0.3	450000	6	A	
27	Al	1	**19100.000**	ug/l	19,100.00	1.5	450000	6	A	
31	P	1	**20430.000**	ug/l	20,430.00	1.6	450000	6	A	
39	K	1	**19820.000**	ug/l	19,820.00	1.0	450000	45	A	
44	Ca	1	**57680.000**	ug/l	57,680.00	0.6	450000	45	A	
47	Ti	1	**403.200**	ug/l	403.20	0.8	4500	45	P	
51	V	1	**-0.298**	ug/l	-0.30	2.3	4500	45	P	
52	Cr	1	**1.168**	ug/l	1.17	1.5	4500	45	P	
55	Mn	1	**0.766**	ug/l	0.77	1.7	4500	45	P	
57	Fe	1	**49280.000**	ug/l	49,280.00	0.6	450000	74	A	
59	Co	1	**0.018**	ug/l	0.02	6.3	4500	74	P	
60	Ni	1	**0.397**	ug/l	0.40	5.8	4500	74	P	
63	Cu	1	**0.218**	ug/l	0.22	8.9	4500	74	P	
66	Zn	1	**1.101**	ug/l	1.10	8.4	4500	74	P	
75	As	1	**-0.022**	ug/l	-0.02	72.0	4500	74	P	
78	Se	1	**0.106**	ug/l	0.11	9.8	4500	74	P	
88	Sr	1	**-0.678**	ug/l	-0.68	3.7	4500	74	P	
95	Mo	1	**445.500**	ug/l	445.50	2.3	4500	103	A	
109	Ag	1	**0.023**	ug/l	0.02	13.1	4500	103	P	
111	Cd	1	**-0.004**	ug/l	0.00	1345.2	4500	103	P	
118	Sn	1	**0.135**	ug/l	0.13	5.2	4500	103	P	
123	Sb	1	**0.147**	ug/l	0.15	15.1	4500	103	P	
135	Ba	1	**0.090**	ug/l	0.09	32.1	4500	103	P	
200	Hg	1	**0.032**	ug/l	0.03	4.8	45	209	P	
205	Tl	1	**0.074**	ug/l	0.07	11.1	4500	209	P	
208	Pb	1	**0.053**	ug/l	0.05	33.7	4500	209	P	
238	U	1	**0.003**	ug/l	0.00	20.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	119883	1.01	127500	**94.0**	30	-	125	
45	Sc	1	1665249	1.11	1680000	**99.1**	30	-	125	
74	Ge	1	3657853	1.43	3781000	**96.7**	30	-	125	
103	Rh	1	4709734	1.80	5317000	**88.6**	30	-	125	
165	Ho	1	2290109	1.35	2392000	**95.7**	30	-	125	
175	Lu	1	1964657	1.31	2020000	**97.3**	30	-	125	
209	Bi	1	2197713	3.07	2513000	**87.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\014SMPL.D\014SMPL.D#
Date Acquired: Sep 14 2011 09:53 am Acq. Method: 00He_ALL.M
Sample Name: ICSAB Vial Number: 1102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.009**	ug/l	-0.01	17.3	900	6	P	
23	Na	1	**51320.000**	ug/l	51,320.00	1.0	450000	6	A	
24	Mg	1	**20420.000**	ug/l	20,420.00	0.1	450000	6	A	
27	Al	1	**19190.000**	ug/l	19,190.00	0.4	450000	6	A	
31	P	1	**20770.000**	ug/l	20,770.00	0.4	450000	6	A	
39	K	1	**19550.000**	ug/l	19,550.00	0.5	450000	45	A	
44	Ca	1	**58470.000**	ug/l	58,470.00	0.7	450000	45	A	
47	Ti	1	**396.000**	ug/l	396.00	1.1	4500	45	P	
51	V	1	**40.530**	ug/l	40.53	1.5	4500	45	P	
52	Cr	1	**40.610**	ug/l	40.61	1.8	4500	45	P	
55	Mn	1	**40.350**	ug/l	40.35	1.0	4500	45	P	
57	Fe	1	**48700.000**	ug/l	48,700.00	0.2	450000	74	A	
59	Co	1	**40.790**	ug/l	40.79	0.4	4500	74	P	
60	Ni	1	**40.920**	ug/l	40.92	0.9	4500	74	P	
63	Cu	1	**40.400**	ug/l	40.40	0.4	4500	74	P	
66	Zn	1	**21.620**	ug/l	21.62	1.3	4500	74	P	
75	As	1	**21.220**	ug/l	21.22	1.3	4500	74	P	
78	Se	1	**20.810**	ug/l	20.81	1.5	4500	74	P	
88	Sr	1	**-0.694**	ug/l	-0.69	10.0	4500	74	P	
95	Mo	1	**438.500**	ug/l	438.50	0.9	4500	103	A	
109	Ag	1	**10.310**	ug/l	10.31	1.2	4500	103	P	
111	Cd	1	**21.420**	ug/l	21.42	2.6	4500	103	P	
118	Sn	1	**0.132**	ug/l	0.13	15.6	4500	103	P	
123	Sb	1	**0.158**	ug/l	0.16	7.9	4500	103	P	
135	Ba	1	**0.134**	ug/l	0.13	26.7	4500	103	P	
200	Hg	1	**0.021**	ug/l	0.02	12.7	45	209	P	
205	Tl	1	**0.047**	ug/l	0.05	13.1	4500	209	P	
208	Pb	1	**0.233**	ug/l	0.23	11.3	4500	209	P	
238	U	1	**0.000**	ug/l	0.00	576.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	118607	0.39	127500	**93.0**	30	-	125	
45	Sc	1	1684003	0.85	1680000	**100.2**	30	-	125	
74	Ge	1	3737820	0.37	3781000	**98.9**	30	-	125	
103	Rh	1	4824975	0.58	5317000	**90.7**	30	-	125	
165	Ho	1	2359265	1.13	2392000	**98.6**	30	-	125	
175	Lu	1	1979131	0.89	2020000	**98.0**	30	-	125	
209	Bi	1	2244981	3.50	2513000	**89.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\015SMPL.D\015SMPL.D#
Date Acquired: Sep 14 2011 09:57 am Acq. Method: 00He_ALL.M
Sample Name: 5000 PPB (Mn,Ni,Cu,Zn,Ba,Ti,Cr) LDR STD Vial Number: 1206
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	0.00	304.9	900	6	P	
23	**Na**	1	**23.250**	ug/l	23.25	49.3	450000	6	P	
24	**Mg**	1	**13.690**	ug/l	13.69	31.0	450000	6	P	
27	**Al**	1	**7.819**	ug/l	7.82	49.8	450000	6	P	
31	**P**	1	**7.277**	ug/l	7.28	68.5	450000	6	P	
39	**K**	1	**5.646**	ug/l	5.65	109.7	450000	45	P	
44	**Ca**	1	**18.030**	ug/l	18.03	67.1	450000	45	P	
47	**Ti**	1	**4827.000**	ug/l	4,827.00	2.7	4500	45	A	Fail
51	**V**	1	**-0.034**	ug/l	-0.03	36.7	4500	45	P	
52	**Cr**	1	**4766.000**	ug/l	4,766.00	1.5	4500	45	A	Fail
55	**Mn**	1	**4844.000**	ug/l	4,844.00	1.8	4500	45	A	Fail
57	**Fe**	1	**26.680**	ug/l	26.68	37.0	450000	74	P	
59	**Co**	1	**0.069**	ug/l	0.07	10.3	4500	74	P	
60	**Ni**	1	**4849.000**	ug/l	4,849.00	1.4	4500	74	A	Fail
63	**Cu**	1	**4856.000**	ug/l	4,856.00	0.5	4500	74	A	Fail
66	**Zn**	1	**4851.000**	ug/l	4,851.00	0.2	4500	74	A	Fail
75	**As**	1	**0.011**	ug/l	0.01	148.6	4500	74	P	
78	**Se**	1	**0.638**	ug/l	0.64	17.6	4500	74	P	
88	**Sr**	1	**0.032**	ug/l	0.03	40.1	4500	74	P	
95	**Mo**	1	**0.882**	ug/l	0.88	12.1	4500	103	P	
109	**Ag**	1	**0.011**	ug/l	0.01	11.1	4500	103	P	
111	**Cd**	1	**0.031**	ug/l	0.03	36.7	4500	103	P	
118	**Sn**	1	**0.110**	ug/l	0.11	12.5	4500	103	P	
123	**Sb**	1	**0.033**	ug/l	0.03	16.2	4500	103	P	
135	**Ba**	1	**4797.000**	ug/l	4,797.00	0.7	4500	103	A	Fail
200	**Hg**	1	**0.015**	ug/l	0.01	24.6	45	209	P	
205	**Tl**	1	**0.030**	ug/l	0.03	13.7	4500	209	P	
208	**Pb**	1	**0.224**	ug/l	0.22	10.1	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	1108.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	119379	0.76	127500	**93.6**	30	-	125	
45	Sc	1	1655549	1.87	1680000	**98.5**	30	-	125	
74	Ge	1	3807996	1.02	3781000	**100.7**	30	-	125	
103	Rh	1	5278367	1.71	5317000	**99.3**	30	-	125	
165	Ho	1	2420008	0.64	2392000	**101.2**	30	-	125	
175	Lu	1	2040837	0.61	2020000	**101.0**	30	-	125	
209	Bi	1	2511561	1.84	2513000	**99.9**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

7 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\016SMPL.D\016SMPL.D#
Date Acquired: Sep 14 2011 10:01 am Acq. Method: 00He_ALL.M
Sample Name: 5000 PPB (As, Pb) LDR STD Vial Number: 1202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	0.00	175.4	900	6	P	
23	**Na**	1	**17.190**	ug/l	17.19	3.3	450000	6	P	
24	**Mg**	1	**1.389**	ug/l	1.39	32.4	450000	6	P	
27	**Al**	1	**1.983**	ug/l	1.98	18.8	450000	6	P	
31	**P**	1	**0.717**	ug/l	0.72	238.6	450000	6	P	
39	**K**	1	**9.165**	ug/l	9.17	39.4	450000	45	P	
44	**Ca**	1	**12.510**	ug/l	12.51	12.8	450000	45	P	
47	**Ti**	1	**1.752**	ug/l	1.75	19.1	4500	45	P	
51	**V**	1	**-0.135**	ug/l	-0.14	7.7	4500	45	P	
52	**Cr**	1	**1.025**	ug/l	1.03	30.5	4500	45	P	
55	**Mn**	1	**1.118**	ug/l	1.12	26.8	4500	45	P	
57	**Fe**	1	**5.923**	ug/l	5.92	18.0	450000	74	P	
59	**Co**	1	**0.006**	ug/l	0.01	60.2	4500	74	P	
60	**Ni**	1	**1.023**	ug/l	1.02	32.5	4500	74	P	
63	**Cu**	1	**1.382**	ug/l	1.38	25.5	4500	74	P	
66	**Zn**	1	**3.702**	ug/l	3.70	10.7	4500	74	P	
75	**As**	1	**5031.000**	ug/l	5,031.00	0.2	4500	74	A	Fail
78	**Se**	1	**0.047**	ug/l	0.05	152.5	4500	74	P	
88	**Sr**	1	**0.050**	ug/l	0.05	6.8	4500	74	P	
95	**Mo**	1	**0.199**	ug/l	0.20	12.0	4500	103	P	
109	**Ag**	1	**0.002**	ug/l	0.00	81.8	4500	103	P	
111	**Cd**	1	**0.008**	ug/l	0.01	165.4	4500	103	P	
118	**Sn**	1	**0.228**	ug/l	0.23	3.0	4500	103	P	
123	**Sb**	1	**0.008**	ug/l	0.01	83.3	4500	103	P	
135	**Ba**	1	**1.092**	ug/l	1.09	25.3	4500	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	6.8	45	209	P	
205	**Tl**	1	**0.231**	ug/l	0.23	2.2	4500	209	P	
208	**Pb**	1	**5184.000**	ug/l	5,184.00	0.7	4500	209	A	Fail
238	**U**	1	**0.000**	ug/l	0.00	29.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	123426	0.62	127500	**96.8**	30	-	125	
45	Sc	1	1672256	2.71	1680000	**99.5**	30	-	125	
74	Ge	1	3791313	2.06	3781000	**100.3**	30	-	125	
103	Rh	1	5359656	2.09	5317000	**100.8**	30	-	125	
165	Ho	1	2447903	2.85	2392000	**102.3**	30	-	125	
175	Lu	1	2094883	1.72	2020000	**103.7**	30	-	125	
209	Bi	1	2581021	1.42	2513000	**102.7**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\018SMPL.D\018SMPL.D#
Date Acquired: Sep 14 2011 10:10 am Acq. Method: 00He_ALL.M
Sample Name: 250 PPM (Al) Vial Number: 1204
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.216**	ug/l	0.22	43.2	900	6	P	
23	**Na**	1	**3.541**	ug/l	3.54	59.1	450000	6	P	
24	**Mg**	1	**0.359**	ug/l	0.36	5.2	450000	6	P	
27	**Al**	1	**233800.000**	ug/l	233,800.00	1.4	450000	6	A	
31	**P**	1	**3.010**	ug/l	3.01	50.6	450000	6	P	
39	**K**	1	**0.558**	ug/l	0.56	820.6	450000	45	P	
44	**Ca**	1	**16.360**	ug/l	16.36	18.4	450000	45	P	
47	**Ti**	1	**0.264**	ug/l	0.26	21.0	4500	45	P	
51	**V**	1	**0.126**	ug/l	0.13	112.7	4500	45	P	
52	**Cr**	1	**0.229**	ug/l	0.23	51.3	4500	45	P	
55	**Mn**	1	**0.267**	ug/l	0.27	50.5	4500	45	P	
57	**Fe**	1	**2.288**	ug/l	2.29	10.2	450000	74	P	
59	**Co**	1	**0.207**	ug/l	0.21	59.0	4500	74	P	
60	**Ni**	1	**0.405**	ug/l	0.41	26.2	4500	74	P	
63	**Cu**	1	**0.424**	ug/l	0.42	37.1	4500	74	P	
66	**Zn**	1	**0.957**	ug/l	0.96	12.9	4500	74	P	
75	**As**	1	**0.488**	ug/l	0.49	41.6	4500	74	P	
78	**Se**	1	**0.355**	ug/l	0.36	40.2	4500	74	P	
88	**Sr**	1	**0.017**	ug/l	0.02	47.3	4500	74	P	
95	**Mo**	1	**0.128**	ug/l	0.13	15.8	4500	103	P	
109	**Ag**	1	**0.002**	ug/l	0.00	41.1	4500	103	P	
111	**Cd**	1	**0.231**	ug/l	0.23	48.1	4500	103	P	
118	**Sn**	1	**0.075**	ug/l	0.08	5.7	4500	103	P	
123	**Sb**	1	**0.008**	ug/l	0.01	66.4	4500	103	P	
135	**Ba**	1	**0.791**	ug/l	0.79	15.9	4500	103	P	
200	**Hg**	1	**0.035**	ug/l	0.04	21.1	45	209	P	
205	**Tl**	1	**0.055**	ug/l	0.06	6.4	4500	209	P	
208	**Pb**	1	**0.536**	ug/l	0.54	44.5	4500	209	P	
238	**U**	1	**-0.001**	ug/l	0.00	16.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	125021	1.58	127500	**98.1**	30	-	125	
45	Sc	1	1723880	3.16	1680000	**102.6**	30	-	125	
74	Ge	1	3749745	1.67	3781000	**99.2**	30	-	125	
103	Rh	1	4982808	1.35	5317000	**93.7**	30	-	125	
165	Ho	1	2335594	0.69	2392000	**97.6**	30	-	125	
175	Lu	1	1976391	0.56	2020000	**97.8**	30	-	125	
209	Bi	1	2300547	2.97	2513000	**91.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\019SMPL.D\019SMPL.D#
Date Acquired: Sep 14 2011 10:14 am Acq. Method: 00He_ALL.M
Sample Name: 250 PPM (Ca, Fe, Mg, K, P, Na) Vial Number: 1205
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.044**	ug/l	0.04	50.5	900	6	P	
23	**Na**	1	**253400.000**	ug/l	253,400.00	1.4	450000	6	A	
24	**Mg**	1	**248700.000**	ug/l	248,700.00	1.9	450000	6	A	
27	**Al**	1	**79.380**	ug/l	79.38	23.4	450000	6	P	
31	**P**	1	**254900.000**	ug/l	254,900.00	0.6	450000	6	A	
39	**K**	1	**234600.000**	ug/l	234,600.00	0.1	450000	45	A	
44	**Ca**	1	**235700.000**	ug/l	235,700.00	1.2	450000	45	A	
47	**Ti**	1	**58.300**	ug/l	58.30	1.0	4500	45	P	
51	**V**	1	**0.232**	ug/l	0.23	4.3	4500	45	P	
52	**Cr**	1	**2.617**	ug/l	2.62	3.6	4500	45	P	
55	**Mn**	1	**15.100**	ug/l	15.10	1.9	4500	45	P	
57	**Fe**	1	**239800.000**	ug/l	239,800.00	0.9	450000	74	A	
59	**Co**	1	**3.683**	ug/l	3.68	2.3	4500	74	P	
60	**Ni**	1	**4.258**	ug/l	4.26	1.7	4500	74	P	
63	**Cu**	1	**1.459**	ug/l	1.46	1.0	4500	74	P	
66	**Zn**	1	**2.771**	ug/l	2.77	2.5	4500	74	P	
75	**As**	1	**0.861**	ug/l	0.86	9.5	4500	74	P	
78	**Se**	1	**0.193**	ug/l	0.19	18.7	4500	74	P	
88	**Sr**	1	**-13.630**	ug/l	-13.63	1.7	4500	74	P	
95	**Mo**	1	**0.736**	ug/l	0.74	3.0	4500	103	P	
109	**Ag**	1	**0.045**	ug/l	0.04	7.1	4500	103	P	
111	**Cd**	1	**0.703**	ug/l	0.70	11.3	4500	103	P	
118	**Sn**	1	**0.352**	ug/l	0.35	11.4	4500	103	P	
123	**Sb**	1	**1.133**	ug/l	1.13	3.2	4500	103	P	
135	**Ba**	1	**0.922**	ug/l	0.92	6.1	4500	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	27.3	45	209	P	
205	**Tl**	1	**0.061**	ug/l	0.06	13.2	4500	209	P	
208	**Pb**	1	**0.717**	ug/l	0.72	7.0	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.00	67.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101736	0.74	127500	**79.8**	30	-	125	
45	Sc	1	1525330	1.29	1680000	**90.8**	30	-	125	
74	Ge	1	3225498	0.64	3781000	**85.3**	30	-	125	
103	Rh	1	4130871	0.76	5317000	**77.7**	30	-	125	
165	Ho	1	2017026	1.01	2392000	**84.3**	30	-	125	
175	Lu	1	1705621	1.44	2020000	**84.4**	30	-	125	
209	Bi	1	1866888	0.64	2513000	**74.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\023SMPL.D\023SMPL.D#
Date Acquired: Sep 14 2011 10:32 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.820**	ug/l	49.82	2.0	900	6	P	
23	**Na**	1	**5185.000**	ug/l	5,185.00	2.5	450000	6	A	
24	**Mg**	1	**5125.000**	ug/l	5,125.00	0.5	450000	6	A	
27	**Al**	1	**511.000**	ug/l	511.00	0.8	450000	6	P	
31	**P**	1	**5122.000**	ug/l	5,122.00	0.3	450000	6	P	
39	**K**	1	**4857.000**	ug/l	4,857.00	0.7	450000	45	A	
44	**Ca**	1	**4879.000**	ug/l	4,879.00	1.8	450000	45	P	
47	**Ti**	1	**49.240**	ug/l	49.24	2.6	4500	45	P	
51	**V**	1	**49.270**	ug/l	49.27	2.9	4500	45	P	
52	**Cr**	1	**49.340**	ug/l	49.34	2.4	4500	45	P	
55	**Mn**	1	**50.260**	ug/l	50.26	2.2	4500	45	P	
57	**Fe**	1	**4922.000**	ug/l	4,922.00	1.1	450000	74	A	
59	**Co**	1	**48.410**	ug/l	48.41	0.7	4500	74	P	
60	**Ni**	1	**48.540**	ug/l	48.54	2.2	4500	74	P	
63	**Cu**	1	**49.270**	ug/l	49.27	2.1	4500	74	P	
66	**Zn**	1	**49.810**	ug/l	49.81	2.6	4500	74	P	
75	**As**	1	**48.950**	ug/l	48.95	1.2	4500	74	P	
78	**Se**	1	**49.240**	ug/l	49.24	0.8	4500	74	P	
88	**Sr**	1	**49.740**	ug/l	49.74	1.1	4500	74	P	
95	**Mo**	1	**49.110**	ug/l	49.11	2.1	4500	103	P	
109	**Ag**	1	**49.130**	ug/l	49.13	2.2	4500	103	P	
111	**Cd**	1	**49.610**	ug/l	49.61	1.9	4500	103	P	
118	**Sn**	1	**49.280**	ug/l	49.28	2.3	4500	103	P	
123	**Sb**	1	**49.570**	ug/l	49.57	2.9	4500	103	P	
135	**Ba**	1	**49.250**	ug/l	49.25	3.1	4500	103	P	
200	**Hg**	1	**2.421**	ug/l	2.42	3.4	45	209	P	
205	**Tl**	1	**48.690**	ug/l	48.69	1.3	4500	209	A	
208	**Pb**	1	**49.010**	ug/l	49.01	3.2	4500	209	P	
238	**U**	1	**49.250**	ug/l	49.25	1.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	105162	0.31	127500	**82.5**	30	-	125	
45	Sc	1	1618675	2.62	1680000	**96.3**	30	-	125	
74	Ge	1	3840710	1.38	3781000	**101.6**	30	-	125	
103	Rh	1	5353895	2.36	5317000	**100.7**	30	-	125	
165	Ho	1	2472616	0.66	2392000	**103.4**	30	-	125	
175	Lu	1	2118680	1.18	2020000	**104.9**	30	-	125	
209	Bi	1	2550293	3.09	2513000	**101.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\024SMPL.D\024SMPL.D#
Date Acquired: Sep 14 2011 10:36 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.011**	ug/l	0.01	118.0	900	6	P	
23	Na	1	**26.980**	ug/l	26.98	3.3	450000	6	P	
24	Mg	1	**1.225**	ug/l	1.23	27.6	450000	6	P	
27	Al	1	**0.161**	ug/l	0.16	82.7	450000	6	P	
31	P	1	**3.527**	ug/l	3.53	51.2	450000	6	P	
39	K	1	**-0.610**	ug/l	-0.61	523.9	450000	45	P	
44	Ca	1	**0.585**	ug/l	0.59	50.4	450000	45	P	
47	Ti	1	**0.046**	ug/l	0.05	30.5	4500	45	P	
51	V	1	**-0.072**	ug/l	-0.07	42.1	4500	45	P	
52	Cr	1	**0.003**	ug/l	0.00	130.3	4500	45	P	
55	Mn	1	**-0.001**	ug/l	0.00	809.9	4500	45	P	
57	Fe	1	**1.986**	ug/l	1.99	20.6	450000	74	P	
59	Co	1	**0.005**	ug/l	0.01	74.0	4500	74	P	
60	Ni	1	**-0.001**	ug/l	0.00	1141.8	4500	74	P	
63	Cu	1	**0.072**	ug/l	0.07	31.3	4500	74	P	
66	Zn	1	**0.013**	ug/l	0.01	136.1	4500	74	P	
75	As	1	**0.011**	ug/l	0.01	36.4	4500	74	P	
78	Se	1	**0.048**	ug/l	0.05	54.8	4500	74	P	
88	Sr	1	**0.005**	ug/l	0.00	160.9	4500	74	P	
95	Mo	1	**0.079**	ug/l	0.08	6.9	4500	103	P	
109	Ag	1	**0.005**	ug/l	0.01	18.2	4500	103	P	
111	Cd	1	**0.008**	ug/l	0.01	78.5	4500	103	P	
118	Sn	1	**0.170**	ug/l	0.17	11.8	4500	103	P	
123	Sb	1	**0.044**	ug/l	0.04	30.5	4500	103	P	
135	Ba	1	**0.002**	ug/l	0.00	112.0	4500	103	P	
200	Hg	1	**0.013**	ug/l	0.01	18.8	45	209	P	
205	Tl	1	**0.196**	ug/l	0.20	6.0	4500	209	P	
208	Pb	1	**0.013**	ug/l	0.01	13.7	4500	209	P	
238	U	1	**0.012**	ug/l	0.01	37.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	104994	0.86	127500	**82.3**	30	-	125	
45	Sc	1	1643389	2.41	1680000	**97.8**	30	-	125	
74	Ge	1	3860388	1.55	3781000	**102.1**	30	-	125	
103	Rh	1	5487021	1.88	5317000	**103.2**	30	-	125	
165	Ho	1	2475921	1.55	2392000	**103.5**	30	-	125	
175	Lu	1	2120105	1.59	2020000	**105.0**	30	-	125	
209	Bi	1	2614538	2.32	2513000	**104.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\025SMPL.D\025SMPL.D#
Date Acquired: Sep 14 2011 10:40 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-13-A Vial Number: 2101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.177**	ug/l	1.77	21.1	900	6	P	
23	Na	1	**255.900**	ug/l	2,559.00	2.1	450000	6	P	
24	Mg	1	**779.600**	ug/l	7,796.00	1.2	450000	6	A	
27	Al	1	**17050.000**	ug/l	170,500.00	1.3	450000	6	A	
31	P	1	**583.900**	ug/l	5,839.00	1.4	450000	6	P	
39	K	1	**294.200**	ug/l	2,942.00	1.3	450000	45	P	
44	Ca	1	**407.300**	ug/l	4,073.00	1.0	450000	45	P	
47	Ti	1	**1263.000**	ug/l	12,630.00	0.3	4500	45	P	
51	V	1	**56.490**	ug/l	564.90	1.2	4500	45	P	
52	Cr	1	**7.454**	ug/l	74.54	1.5	4500	45	P	
55	Mn	1	**284.700**	ug/l	2,847.00	1.3	4500	45	A	
57	Fe	1	**31460.000**	ug/l	314,600.00	0.8	450000	74	A	
59	Co	1	**4.033**	ug/l	40.33	2.0	4500	74	P	
60	Ni	1	**2.455**	ug/l	24.55	3.3	4500	74	P	
63	Cu	1	**2214.000**	ug/l	22,140.00	1.8	4500	74	A	
66	Zn	1	**28.700**	ug/l	287.00	0.4	4500	74	P	
75	As	1	**218.100**	ug/l	2,181.00	0.1	4500	74	P	
78	Se	1	**1.131**	ug/l	11.31	1.6	4500	74	P	
88	Sr	1	**3.157**	ug/l	31.57	1.1	4500	74	P	
95	Mo	1	**2.649**	ug/l	26.49	1.1	4500	103	P	
109	Ag	1	**8.203**	ug/l	82.03	0.8	4500	103	P	
111	Cd	1	**0.177**	ug/l	1.77	5.1	4500	103	P	
118	Sn	1	**2.018**	ug/l	20.18	2.2	4500	103	P	
123	Sb	1	**1.786**	ug/l	17.86	4.4	4500	103	P	
135	Ba	1	**10.230**	ug/l	102.30	2.0	4500	103	P	
200	Hg	1	**0.269**	ug/l	2.69	5.0	45	209	P	
205	Tl	1	**0.139**	ug/l	1.39	1.8	4500	209	P	
208	Pb	1	**654.800**	ug/l	6,548.00	0.9	4500	209	A	
238	U	1	**0.997**	ug/l	9.97	2.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	104760	1.03	127500	**82.2**	30	-	125	
45	Sc	1	1632252	1.07	1680000	**97.2**	30	-	125	
74	Ge	1	3824943	0.46	3781000	**101.2**	30	-	125	
103	Rh	1	5367120	0.79	5317000	**100.9**	30	-	125	
165	Ho	1	2489705	1.25	2392000	**104.1**	30	-	125	
175	Lu	1	2107279	2.01	2020000	**104.3**	30	-	125	
209	Bi	1	2564092	1.18	2513000	**102.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\026SMPL.D\026SMPL.D#
Date Acquired: Sep 14 2011 10:45 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-14-A Vial Number: 2102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.131**	ug/l	1.31	17.6	900	6	P	
23	**Na**	1	**268.100**	ug/l	2,681.00	0.9	450000	6	P	
24	**Mg**	1	**325.500**	ug/l	3,255.00	0.2	450000	6	P	
27	**Al**	1	**9476.000**	ug/l	94,760.00	0.8	450000	6	A	
31	**P**	1	**344.600**	ug/l	3,446.00	2.6	450000	6	P	
39	**K**	1	**166.000**	ug/l	1,660.00	1.6	450000	45	P	
44	**Ca**	1	**347.700**	ug/l	3,477.00	0.9	450000	45	P	
47	**Ti**	1	**824.500**	ug/l	8,245.00	0.8	4500	45	P	
51	**V**	1	**39.970**	ug/l	399.70	0.5	4500	45	P	
52	**Cr**	1	**5.568**	ug/l	55.68	0.2	4500	45	P	
55	**Mn**	1	**102.200**	ug/l	1,022.00	0.6	4500	45	P	
57	**Fe**	1	**15370.000**	ug/l	153,700.00	1.2	450000	74	A	
59	**Co**	1	**2.142**	ug/l	21.42	2.2	4500	74	P	
60	**Ni**	1	**2.039**	ug/l	20.39	4.5	4500	74	P	
63	**Cu**	1	**1466.000**	ug/l	14,660.00	1.0	4500	74	A	
66	**Zn**	1	**37.530**	ug/l	375.30	1.1	4500	74	P	
75	**As**	1	**53.850**	ug/l	538.50	2.5	4500	74	P	
78	**Se**	1	**0.467**	ug/l	4.67	11.9	4500	74	P	
88	**Sr**	1	**3.053**	ug/l	30.53	1.4	4500	74	P	
95	**Mo**	1	**1.092**	ug/l	10.92	4.8	4500	103	P	
109	**Ag**	1	**2.741**	ug/l	27.41	1.7	4500	103	P	
111	**Cd**	1	**0.242**	ug/l	2.42	15.0	4500	103	P	
118	**Sn**	1	**1.622**	ug/l	16.22	0.1	4500	103	P	
123	**Sb**	1	**0.782**	ug/l	7.82	3.8	4500	103	P	
135	**Ba**	1	**6.367**	ug/l	63.67	1.3	4500	103	P	
200	**Hg**	1	**0.127**	ug/l	1.27	8.5	45	209	P	
205	**Tl**	1	**0.076**	ug/l	0.76	10.3	4500	209	P	
208	**Pb**	1	**238.400**	ug/l	2,384.00	1.6	4500	209	A	
238	**U**	1	**0.437**	ug/l	4.37	2.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	107581	0.53	127500	**84.4**	30	-	125	
45	Sc	1	1673683	1.03	1680000	**99.6**	30	-	125	
74	Ge	1	3947290	2.04	3781000	**104.4**	30	-	125	
103	Rh	1	5505069	1.61	5317000	**103.5**	30	-	125	
165	Ho	1	2546605	1.82	2392000	**106.5**	30	-	125	
175	Lu	1	2156293	1.54	2020000	**106.7**	30	-	125	
209	Bi	1	2611655	2.14	2513000	**103.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\027SMPL.D\027SMPL.D#
Date Acquired: Sep 14 2011 10:49 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-15-A Vial Number: 2103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.311**	ug/l	3.11	2.5	900	6	P	
23	Na	1	**483.600**	ug/l	4,836.00	0.9	450000	6	A	
24	Mg	1	**740.300**	ug/l	7,403.00	0.8	450000	6	P	
27	Al	1	**29760.000**	ug/l	297,600.00	0.9	450000	6	A	
31	P	1	**709.200**	ug/l	7,092.00	2.7	450000	6	P	
39	K	1	**140.800**	ug/l	1,408.00	1.5	450000	45	P	
44	Ca	1	**1421.000**	ug/l	14,210.00	1.5	450000	45	P	
47	Ti	1	**986.800**	ug/l	9,868.00	1.7	4500	45	P	
51	V	1	**48.930**	ug/l	489.30	1.5	4500	45	P	
52	Cr	1	**11.130**	ug/l	111.30	1.8	4500	45	P	
55	Mn	1	**97.960**	ug/l	979.60	1.2	4500	45	P	
57	Fe	1	**27110.000**	ug/l	271,100.00	1.3	450000	74	A	
59	Co	1	**3.747**	ug/l	37.47	1.5	4500	74	P	
60	Ni	1	**2.567**	ug/l	25.67	3.9	4500	74	P	
63	Cu	1	**1108.000**	ug/l	11,080.00	2.0	4500	74	A	
66	Zn	1	**30.540**	ug/l	305.40	0.7	4500	74	P	
75	As	1	**64.500**	ug/l	645.00	0.5	4500	74	P	
78	Se	1	**1.213**	ug/l	12.13	4.4	4500	74	P	
88	Sr	1	**13.680**	ug/l	136.80	0.5	4500	74	P	
95	Mo	1	**1.113**	ug/l	11.13	0.4	4500	103	P	
109	Ag	1	**1.758**	ug/l	17.58	4.1	4500	103	P	
111	Cd	1	**0.162**	ug/l	1.62	19.3	4500	103	P	
118	Sn	1	**2.206**	ug/l	22.06	1.7	4500	103	P	
123	Sb	1	**0.645**	ug/l	6.45	3.9	4500	103	P	
135	Ba	1	**6.418**	ug/l	64.18	2.2	4500	103	P	
200	Hg	1	**0.151**	ug/l	1.51	1.7	45	209	P	
205	Tl	1	**0.069**	ug/l	0.69	12.0	4500	209	P	
208	Pb	1	**99.810**	ug/l	998.10	1.4	4500	209	A	
238	U	1	**1.721**	ug/l	17.21	1.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101278	0.46	127500	**79.4**	30	-	125	
45	Sc	1	1616706	2.20	1680000	**96.2**	30	-	125	
74	Ge	1	3788352	1.46	3781000	**100.2**	30	-	125	
103	Rh	1	5288506	1.02	5317000	**99.5**	30	-	125	
165	Ho	1	2490119	1.35	2392000	**104.1**	30	-	125	
175	Lu	1	2123179	1.78	2020000	**105.1**	30	-	125	
209	Bi	1	2553439	0.78	2513000	**101.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\028SMPL.D\028SMPL.D#
Date Acquired: Sep 14 2011 10:53 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-16-A Vial Number: 2104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.464**	ug/l	4.64	12.7	900	6	P	
23	Na	1	**557.700**	ug/l	5,577.00	1.7	450000	6	A	
24	Mg	1	**769.100**	ug/l	7,691.00	0.4	450000	6	M	
27	Al	1	**49600.000**	ug/l	496,000.00	1.4	450000	6	A	
31	P	1	**715.700**	ug/l	7,157.00	0.9	450000	6	P	
39	K	1	**196.100**	ug/l	1,961.00	3.9	450000	45	P	
44	Ca	1	**1726.000**	ug/l	17,260.00	2.4	450000	45	P	
47	Ti	1	**1077.000**	ug/l	10,770.00	1.7	4500	45	P	
51	V	1	**53.470**	ug/l	534.70	2.2	4500	45	P	
52	Cr	1	**17.280**	ug/l	172.80	2.6	4500	45	P	
55	Mn	1	**78.500**	ug/l	785.00	2.5	4500	45	P	
57	Fe	1	**27190.000**	ug/l	271,900.00	1.6	450000	74	A	
59	Co	1	**2.881**	ug/l	28.81	2.3	4500	74	P	
60	Ni	1	**3.764**	ug/l	37.64	0.5	4500	74	P	
63	Cu	1	**1240.000**	ug/l	12,400.00	2.2	4500	74	A	
66	Zn	1	**37.730**	ug/l	377.30	1.7	4500	74	P	
75	As	1	**80.800**	ug/l	808.00	1.6	4500	74	P	
78	Se	1	**1.599**	ug/l	15.99	6.8	4500	74	P	
88	Sr	1	**17.760**	ug/l	177.60	1.5	4500	74	P	
95	Mo	1	**1.267**	ug/l	12.67	3.0	4500	103	P	
109	Ag	1	**2.241**	ug/l	22.41	2.1	4500	103	P	
111	Cd	1	**0.222**	ug/l	2.22	6.0	4500	103	P	
118	Sn	1	**1.863**	ug/l	18.63	5.4	4500	103	P	
123	Sb	1	**0.836**	ug/l	8.36	2.9	4500	103	P	
135	Ba	1	**12.000**	ug/l	120.00	2.1	4500	103	P	
200	Hg	1	**0.183**	ug/l	1.83	1.6	45	209	P	
205	Tl	1	**0.102**	ug/l	1.02	3.9	4500	209	P	
208	Pb	1	**113.000**	ug/l	1,130.00	1.8	4500	209	A	
238	U	1	**1.871**	ug/l	18.71	3.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	99759	0.56	127500	**78.2**	30	-	125	
45	Sc	1	1583129	2.13	1680000	**94.2**	30	-	125	
74	Ge	1	3751892	2.14	3781000	**99.2**	30	-	125	
103	Rh	1	5242506	1.21	5317000	**98.6**	30	-	125	
165	Ho	1	2486633	1.47	2392000	**104.0**	30	-	125	
175	Lu	1	2093118	2.61	2020000	**103.6**	30	-	125	
209	Bi	1	2538589	1.77	2513000	**101.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\029SMPL.D\029SMPL.D#
Date Acquired: Sep 14 2011 10:58 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-21-A Vial Number: 2105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.636**	ug/l	6.36	4.2	900	6	P	
23	Na	1	**669.000**	ug/l	6,690.00	1.3	450000	6	A	
24	Mg	1	**36880.000**	ug/l	368,800.00	3.0	450000	6	A	
27	Al	1	**32910.000**	ug/l	329,100.00	0.8	450000	6	A	
31	P	1	**998.800**	ug/l	9,988.00	0.5	450000	6	P	
39	K	1	**2432.000**	ug/l	24,320.00	1.5	450000	45	A	
44	Ca	1	**3274.000**	ug/l	32,740.00	1.0	450000	45	P	
47	Ti	1	**835.200**	ug/l	8,352.00	0.5	4500	45	P	
51	V	1	**121.400**	ug/l	1,214.00	1.2	4500	45	A	
52	Cr	1	**120.700**	ug/l	1,207.00	1.2	4500	45	A	
55	Mn	1	**838.000**	ug/l	8,380.00	0.7	4500	45	A	
57	Fe	1	**75020.000**	ug/l	750,200.00	0.6	450000	74	A	
59	Co	1	**29.960**	ug/l	299.60	0.6	4500	74	P	
60	Ni	1	**240.400**	ug/l	2,404.00	1.0	4500	74	P	
63	Cu	1	**178.300**	ug/l	1,783.00	1.7	4500	74	A	
66	Zn	1	**119.500**	ug/l	1,195.00	0.5	4500	74	P	
75	As	1	**233.800**	ug/l	2,338.00	1.2	4500	74	P	
78	Se	1	**1.397**	ug/l	13.97	2.9	4500	74	P	
88	Sr	1	**32.030**	ug/l	320.30	0.7	4500	74	P	
95	Mo	1	**3.848**	ug/l	38.48	2.6	4500	103	P	
109	Ag	1	**0.248**	ug/l	2.48	3.4	4500	103	P	
111	Cd	1	**0.370**	ug/l	3.70	12.1	4500	103	P	
118	Sn	1	**2.207**	ug/l	22.07	1.8	4500	103	P	
123	Sb	1	**0.787**	ug/l	7.87	1.1	4500	103	P	
135	Ba	1	**102.600**	ug/l	1,026.00	0.7	4500	103	P	
200	Hg	1	**0.230**	ug/l	2.30	4.1	45	209	P	
205	Tl	1	**0.423**	ug/l	4.23	4.6	4500	209	P	
208	Pb	1	**26.620**	ug/l	266.20	1.3	4500	209	P	
238	U	1	**0.300**	ug/l	3.00	3.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	98970	1.57	127500	**77.6**	30	-	125	
45	Sc	1	1556177	0.79	1680000	**92.6**	30	-	125	
74	Ge	1	3614912	0.57	3781000	**95.6**	30	-	125	
103	Rh	1	4992680	0.99	5317000	**93.9**	30	-	125	
165	Ho	1	2379057	2.04	2392000	**99.5**	30	-	125	
175	Lu	1	2037851	0.88	2020000	**100.9**	30	-	125	
209	Bi	1	2410536	1.01	2513000	**95.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\030SMPL.D\030SMPL.D#
Date Acquired: Sep 14 2011 11:02 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-22-A Vial Number: 2106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.399**	ug/l	3.99	5.0	900	6	P	
23	**Na**	1	**269.000**	ug/l	2,690.00	0.3	450000	6	P	
24	**Mg**	1	**2253.000**	ug/l	22,530.00	2.3	450000	6	A	
27	**Al**	1	**54410.000**	ug/l	544,100.00	0.5	450000	6	A	
31	**P**	1	**909.300**	ug/l	9,093.00	3.4	450000	6	P	
39	**K**	1	**359.600**	ug/l	3,596.00	2.7	450000	45	P	
44	**Ca**	1	**448.300**	ug/l	4,483.00	1.8	450000	45	P	
47	**Ti**	1	**1268.000**	ug/l	12,680.00	1.5	4500	45	P	
51	**V**	1	**105.800**	ug/l	1,058.00	1.3	4500	45	M	
52	**Cr**	1	**56.480**	ug/l	564.80	2.1	4500	45	P	
55	**Mn**	1	**110.800**	ug/l	1,108.00	2.5	4500	45	P	
57	**Fe**	1	**48310.000**	ug/l	483,100.00	1.6	450000	74	A	
59	**Co**	1	**6.086**	ug/l	60.86	3.1	4500	74	P	
60	**Ni**	1	**29.370**	ug/l	293.70	2.2	4500	74	P	
63	**Cu**	1	**61.710**	ug/l	617.10	1.7	4500	74	P	
66	**Zn**	1	**39.950**	ug/l	399.50	0.1	4500	74	P	
75	**As**	1	**16.510**	ug/l	165.10	1.1	4500	74	P	
78	**Se**	1	**1.496**	ug/l	14.96	1.5	4500	74	P	
88	**Sr**	1	**7.442**	ug/l	74.42	0.6	4500	74	P	
95	**Mo**	1	**1.775**	ug/l	17.75	1.7	4500	103	P	
109	**Ag**	1	**0.643**	ug/l	6.43	4.3	4500	103	P	
111	**Cd**	1	**0.345**	ug/l	3.45	6.1	4500	103	P	
118	**Sn**	1	**2.491**	ug/l	24.91	3.1	4500	103	P	
123	**Sb**	1	**0.393**	ug/l	3.93	7.9	4500	103	P	
135	**Ba**	1	**34.330**	ug/l	343.30	1.0	4500	103	P	
200	**Hg**	1	**0.456**	ug/l	4.56	1.2	45	209	P	
205	**Tl**	1	**0.082**	ug/l	0.82	5.4	4500	209	P	
208	**Pb**	1	**17.620**	ug/l	176.20	1.1	4500	209	P	
238	**U**	1	**0.730**	ug/l	7.30	4.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101445	1.20	127500	**79.6**	30	-	125	
45	Sc	1	1616321	3.88	1680000	**96.2**	30	-	125	
74	Ge	1	3711047	2.39	3781000	**98.1**	30	-	125	
103	Rh	1	5178879	2.77	5317000	**97.4**	30	-	125	
165	Ho	1	2422974	1.12	2392000	**101.3**	30	-	125	
175	Lu	1	2070835	1.70	2020000	**102.5**	30	-	125	
209	Bi	1	2452129	2.15	2513000	**97.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\031SMPL.D\031SMPL.D#
Date Acquired: Sep 14 2011 11:06 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-23-A Vial Number: 2107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.028**	ug/l	0.28	24.1	900	6	P	
23	**Na**	1	**256.500**	ug/l	2,565.00	1.8	450000	6	P	
24	**Mg**	1	**423.800**	ug/l	4,238.00	1.3	450000	6	P	
27	**Al**	1	**3308.000**	ug/l	33,080.00	3.2	450000	6	A	
31	**P**	1	**206.100**	ug/l	2,061.00	2.0	450000	6	P	
39	**K**	1	**230.700**	ug/l	2,307.00	3.7	450000	45	P	
44	**Ca**	1	**658.100**	ug/l	6,581.00	2.5	450000	45	P	
47	**Ti**	1	**1152.000**	ug/l	11,520.00	2.3	4500	45	P	
51	**V**	1	**55.300**	ug/l	553.00	2.2	4500	45	P	
52	**Cr**	1	**7.467**	ug/l	74.67	2.4	4500	45	P	
55	**Mn**	1	**62.830**	ug/l	628.30	2.4	4500	45	P	
57	**Fe**	1	**13370.000**	ug/l	133,700.00	2.4	450000	74	A	
59	**Co**	1	**2.555**	ug/l	25.55	1.2	4500	74	P	
60	**Ni**	1	**3.088**	ug/l	30.88	2.0	4500	74	P	
63	**Cu**	1	**5.808**	ug/l	58.08	1.3	4500	74	P	
66	**Zn**	1	**20.450**	ug/l	204.50	3.1	4500	74	P	
75	**As**	1	**5.447**	ug/l	54.47	2.9	4500	74	P	
78	**Se**	1	**0.179**	ug/l	1.79	25.8	4500	74	P	
88	**Sr**	1	**4.562**	ug/l	45.62	0.9	4500	74	P	
95	**Mo**	1	**0.288**	ug/l	2.88	1.4	4500	103	P	
109	**Ag**	1	**0.208**	ug/l	2.08	2.1	4500	103	P	
111	**Cd**	1	**0.059**	ug/l	0.59	19.6	4500	103	P	
118	**Sn**	1	**1.392**	ug/l	13.92	1.4	4500	103	P	
123	**Sb**	1	**0.299**	ug/l	2.99	1.3	4500	103	P	
135	**Ba**	1	**5.407**	ug/l	54.07	1.9	4500	103	P	
200	**Hg**	1	**0.105**	ug/l	1.05	3.0	45	209	P	
205	**Tl**	1	**0.030**	ug/l	0.30	22.7	4500	209	P	
208	**Pb**	1	**9.183**	ug/l	91.83	2.4	4500	209	P	
238	**U**	1	**0.092**	ug/l	0.92	6.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	105624	1.41	127500	**82.8**	30	-	125	
45	Sc	1	1591962	2.01	1680000	**94.8**	30	-	125	
74	Ge	1	3701062	1.23	3781000	**97.9**	30	-	125	
103	Rh	1	5359114	0.53	5317000	**100.8**	30	-	125	
165	Ho	1	2508356	1.15	2392000	**104.9**	30	-	125	
175	Lu	1	2113402	0.65	2020000	**104.6**	30	-	125	
209	Bi	1	2609829	1.28	2513000	**103.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\032SMPL.D\032SMPL.D#
Date Acquired: Sep 14 2011 11:11 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-17-A Vial Number: 2108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.007**	ug/l	7.14	238.3	900	6	P	
23	**Na**	1	**33.300**	ug/l	33,300.00	9.7	450000	6	P	
24	**Mg**	1	**92.730**	ug/l	92,730.00	2.1	450000	6	P	
27	**Al**	1	**524.600**	ug/l	524,600.00	1.1	450000	6	P	
31	**P**	1	**16.980**	ug/l	16,980.00	9.2	450000	6	P	
39	**K**	1	**22.610**	ug/l	22,610.00	9.0	450000	45	P	
44	**Ca**	1	**54.900**	ug/l	54,900.00	2.7	450000	45	P	
47	**Ti**	1	**12.500**	ug/l	12,500.00	1.2	4500	45	P	
51	**V**	1	**1.350**	ug/l	1,350.00	5.2	4500	45	P	
52	**Cr**	1	**0.151**	ug/l	151.40	12.9	4500	45	P	
55	**Mn**	1	**116.400**	ug/l	116,400.00	0.9	4500	45	P	
57	**Fe**	1	**1132.000**	ug/l	1,132,000.00	0.7	450000	74	P	
59	**Co**	1	**0.448**	ug/l	447.60	2.7	4500	74	P	
60	**Ni**	1	**0.121**	ug/l	120.90	16.3	4500	74	P	
63	**Cu**	1	**2.454**	ug/l	2,454.00	0.1	4500	74	P	
66	**Zn**	1	**9.592**	ug/l	9,592.00	2.3	4500	74	P	
75	**As**	1	**101.200**	ug/l	101,200.00	1.0	4500	74	P	
78	**Se**	1	**0.011**	ug/l	11.00	499.6	4500	74	P	
88	**Sr**	1	**0.175**	ug/l	175.30	8.4	4500	74	P	
95	**Mo**	1	**0.177**	ug/l	177.00	9.6	4500	103	P	
109	**Ag**	1	**0.018**	ug/l	18.01	21.2	4500	103	P	
111	**Cd**	1	**0.080**	ug/l	79.79	24.2	4500	103	P	
118	**Sn**	1	**0.060**	ug/l	59.65	13.6	4500	103	P	
123	**Sb**	1	**0.506**	ug/l	505.70	2.4	4500	103	P	
135	**Ba**	1	**1.455**	ug/l	1,455.00	14.5	4500	103	P	
200	**Hg**	1	**0.016**	ug/l	16.28	11.6	45	209	P	
205	**Tl**	1	**0.099**	ug/l	99.12	5.8	4500	209	P	
208	**Pb**	1	**1.886**	ug/l	1,886.00	3.2	4500	209	P	
238	**U**	1	**0.093**	ug/l	93.30	3.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	100015	2.33	127500	**78.4**	30	-	125	
45	Sc	1	1550759	1.82	1680000	**92.3**	30	-	125	
74	Ge	1	3781169	1.24	3781000	**100.0**	30	-	125	
103	Rh	1	5414779	0.85	5317000	**101.8**	30	-	125	
165	Ho	1	2495904	1.52	2392000	**104.3**	30	-	125	
175	Lu	1	2107633	0.80	2020000	**104.3**	30	-	125	
209	Bi	1	2585490	2.28	2513000	**102.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\033SMPL.D\033SMPL.D#
Date Acquired: Sep 14 2011 11:15 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-18-A Vial Number: 2109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.004**	ug/l	4.43	111.9	900	6	P	
23	Na	1	**31.990**	ug/l	31,990.00	5.9	450000	6	P	
24	Mg	1	**97.250**	ug/l	97,250.00	1.1	450000	6	P	
27	Al	1	**418.400**	ug/l	418,400.00	0.8	450000	6	P	
31	P	1	**15.300**	ug/l	15,300.00	16.2	450000	6	P	
39	K	1	**32.690**	ug/l	32,690.00	12.1	450000	45	P	
44	Ca	1	**44.240**	ug/l	44,240.00	3.3	450000	45	P	
47	Ti	1	**15.460**	ug/l	15,460.00	1.9	4500	45	P	
51	V	1	**1.273**	ug/l	1,273.00	1.9	4500	45	P	
52	Cr	1	**0.115**	ug/l	115.10	15.4	4500	45	P	
55	Mn	1	**275.900**	ug/l	275,900.00	2.0	4500	45	A	
57	Fe	1	**852.200**	ug/l	852,200.00	1.5	450000	74	P	
59	Co	1	**0.381**	ug/l	380.60	1.0	4500	74	P	
60	Ni	1	**0.128**	ug/l	128.10	16.6	4500	74	P	
63	Cu	1	**2.289**	ug/l	2,289.00	1.4	4500	74	P	
66	Zn	1	**9.630**	ug/l	9,630.00	1.9	4500	74	P	
75	As	1	**49.970**	ug/l	49,970.00	2.1	4500	74	P	
78	Se	1	**-0.007**	ug/l	-6.59	1233.8	4500	74	P	
88	Sr	1	**0.144**	ug/l	143.60	6.4	4500	74	P	
95	Mo	1	**0.104**	ug/l	103.50	3.0	4500	103	P	
109	Ag	1	**0.013**	ug/l	12.68	4.8	4500	103	P	
111	Cd	1	**0.058**	ug/l	57.60	4.3	4500	103	P	
118	Sn	1	**0.063**	ug/l	63.28	6.3	4500	103	P	
123	Sb	1	**0.253**	ug/l	253.20	3.4	4500	103	P	
135	Ba	1	**2.052**	ug/l	2,052.00	1.4	4500	103	P	
200	Hg	1	**0.011**	ug/l	11.04	42.1	45	209	P	
205	Tl	1	**0.110**	ug/l	109.90	2.6	4500	209	P	
208	Pb	1	**1.115**	ug/l	1,115.00	4.3	4500	209	P	
238	U	1	**0.068**	ug/l	68.14	4.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101324	1.13	127500	**79.5**	30	-	125	
45	Sc	1	1599095	2.76	1680000	**95.2**	30	-	125	
74	Ge	1	3912756	1.47	3781000	**103.5**	30	-	125	
103	Rh	1	5493412	1.65	5317000	**103.3**	30	-	125	
165	Ho	1	2542983	1.29	2392000	**106.3**	30	-	125	
175	Lu	1	2140659	1.11	2020000	**106.0**	30	-	125	
209	Bi	1	2629844	1.63	2513000	**104.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\034SMPL.D\034SMPL.D#
Date Acquired: Sep 14 2011 11:20 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-19-A Vial Number: 2110
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	-5.37	70.3	900	6	P	
23	**Na**	1	**30.450**	ug/l	30,450.00	2.7	450000	6	P	
24	**Mg**	1	**36.070**	ug/l	36,070.00	0.7	450000	6	P	
27	**Al**	1	**146.600**	ug/l	146,600.00	1.1	450000	6	P	
31	**P**	1	**11.580**	ug/l	11,580.00	11.5	450000	6	P	
39	**K**	1	**35.950**	ug/l	35,950.00	9.9	450000	45	P	
44	**Ca**	1	**13.820**	ug/l	13,820.00	6.3	450000	45	P	
47	**Ti**	1	**3.854**	ug/l	3,854.00	5.1	4500	45	P	
51	**V**	1	**0.919**	ug/l	918.80	4.0	4500	45	P	
52	**Cr**	1	**0.087**	ug/l	86.66	12.2	4500	45	P	
55	**Mn**	1	**94.550**	ug/l	94,550.00	3.5	4500	45	P	
57	**Fe**	1	**1068.000**	ug/l	1,068,000.00	2.3	450000	74	P	
59	**Co**	1	**0.405**	ug/l	405.40	2.0	4500	74	P	
60	**Ni**	1	**0.046**	ug/l	45.62	22.2	4500	74	P	
63	**Cu**	1	**3.024**	ug/l	3,024.00	3.9	4500	74	P	
66	**Zn**	1	**4.158**	ug/l	4,158.00	1.3	4500	74	P	
75	**As**	1	**110.700**	ug/l	110,700.00	1.3	4500	74	P	
78	**Se**	1	**0.041**	ug/l	41.45	149.3	4500	74	P	
88	**Sr**	1	**0.068**	ug/l	68.29	13.2	4500	74	P	
95	**Mo**	1	**0.056**	ug/l	55.93	25.3	4500	103	P	
109	**Ag**	1	**0.041**	ug/l	40.62	4.5	4500	103	P	
111	**Cd**	1	**0.036**	ug/l	36.10	21.2	4500	103	P	
118	**Sn**	1	**0.075**	ug/l	75.05	12.2	4500	103	P	
123	**Sb**	1	**1.064**	ug/l	1,064.00	1.4	4500	103	P	
135	**Ba**	1	**0.904**	ug/l	903.90	8.6	4500	103	P	
200	**Hg**	1	**0.021**	ug/l	21.05	4.0	45	209	P	
205	**Tl**	1	**0.071**	ug/l	70.99	8.3	4500	209	P	
208	**Pb**	1	**3.337**	ug/l	3,337.00	0.3	4500	209	P	
238	**U**	1	**0.044**	ug/l	43.88	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101656	0.41	127500	**79.7**	30	-	125	
45	Sc	1	1620966	3.09	1680000	**96.5**	30	-	125	
74	Ge	1	3845958	1.45	3781000	**101.7**	30	-	125	
103	Rh	1	5547808	0.85	5317000	**104.3**	30	-	125	
165	Ho	1	2505972	1.88	2392000	**104.8**	30	-	125	
175	Lu	1	2139841	1.74	2020000	**105.9**	30	-	125	
209	Bi	1	2652340	0.93	2513000	**105.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\035SMPL.D\035SMPL.D#
Date Acquired: Sep 14 2011 11:24 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**50.770**	ug/l	50.77	1.9	900	6	P	
23	Na	1	**5431.000**	ug/l	5,431.00	2.0	450000	6	A	
24	Mg	1	**5406.000**	ug/l	5,406.00	0.9	450000	6	A	
27	Al	1	**533.000**	ug/l	533.00	0.8	450000	6	P	
31	P	1	**5346.000**	ug/l	5,346.00	1.9	450000	6	P	
39	K	1	**4780.000**	ug/l	4,780.00	1.2	450000	45	A	
44	Ca	1	**4815.000**	ug/l	4,815.00	0.9	450000	45	P	
47	Ti	1	**47.710**	ug/l	47.71	1.6	4500	45	P	
51	V	1	**49.070**	ug/l	49.07	0.7	4500	45	P	
52	Cr	1	**49.180**	ug/l	49.18	0.9	4500	45	P	
55	Mn	1	**50.390**	ug/l	50.39	1.1	4500	45	P	
57	Fe	1	**4816.000**	ug/l	4,816.00	1.2	450000	74	A	
59	Co	1	**47.570**	ug/l	47.57	2.1	4500	74	P	
60	Ni	1	**47.570**	ug/l	47.57	2.7	4500	74	P	
63	Cu	1	**48.690**	ug/l	48.69	2.0	4500	74	P	
66	Zn	1	**48.900**	ug/l	48.90	2.3	4500	74	P	
75	As	1	**48.850**	ug/l	48.85	1.2	4500	74	P	
78	Se	1	**48.980**	ug/l	48.98	2.5	4500	74	P	
88	Sr	1	**49.760**	ug/l	49.76	1.3	4500	74	P	
95	Mo	1	**48.640**	ug/l	48.64	0.6	4500	103	P	
109	Ag	1	**49.170**	ug/l	49.17	1.6	4500	103	P	
111	Cd	1	**49.950**	ug/l	49.95	2.0	4500	103	P	
118	Sn	1	**50.060**	ug/l	50.06	1.4	4500	103	P	
123	Sb	1	**50.160**	ug/l	50.16	1.2	4500	103	P	
135	Ba	1	**49.310**	ug/l	49.31	0.8	4500	103	P	
200	Hg	1	**2.390**	ug/l	2.39	3.0	45	209	P	
205	Tl	1	**48.150**	ug/l	48.15	1.9	4500	209	A	
208	Pb	1	**48.460**	ug/l	48.46	1.7	4500	209	P	
238	U	1	**48.510**	ug/l	48.51	0.8	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	96006	1.25	127500	**75.3**	30	-	125	
45	Sc	1	1599456	1.19	1680000	**95.2**	30	-	125	
74	Ge	1	3854004	1.59	3781000	**101.9**	30	-	125	
103	Rh	1	5351121	0.79	5317000	**100.6**	30	-	125	
165	Ho	1	2497838	1.66	2392000	**104.4**	30	-	125	
175	Lu	1	2145024	1.48	2020000	**106.2**	30	-	125	
209	Bi	1	2598326	1.50	2513000	**103.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\036SMPL.D\036SMPL.D#
Date Acquired: Sep 14 2011 11:28 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.00	269.6	900	6	P	
23	**Na**	1	**36.150**	ug/l	36.15	4.4	450000	6	P	
24	**Mg**	1	**0.918**	ug/l	0.92	41.4	450000	6	P	
27	**Al**	1	**0.226**	ug/l	0.23	49.6	450000	6	P	
31	**P**	1	**1.079**	ug/l	1.08	40.7	450000	6	P	
39	**K**	1	**-5.939**	ug/l	-5.94	42.4	450000	45	P	
44	**Ca**	1	**0.373**	ug/l	0.37	142.1	450000	45	P	
47	**Ti**	1	**0.048**	ug/l	0.05	25.4	4500	45	P	
51	**V**	1	**-0.066**	ug/l	-0.07	15.3	4500	45	P	
52	**Cr**	1	**0.009**	ug/l	0.01	55.5	4500	45	P	
55	**Mn**	1	**0.006**	ug/l	0.01	44.2	4500	45	P	
57	**Fe**	1	**1.893**	ug/l	1.89	18.4	450000	74	P	
59	**Co**	1	**0.007**	ug/l	0.01	71.5	4500	74	P	
60	**Ni**	1	**0.006**	ug/l	0.01	96.7	4500	74	P	
63	**Cu**	1	**0.112**	ug/l	0.11	18.9	4500	74	P	
66	**Zn**	1	**0.009**	ug/l	0.01	313.1	4500	74	P	
75	**As**	1	**0.007**	ug/l	0.01	272.8	4500	74	P	
78	**Se**	1	**0.053**	ug/l	0.05	100.2	4500	74	P	
88	**Sr**	1	**0.010**	ug/l	0.01	61.5	4500	74	P	
95	**Mo**	1	**0.073**	ug/l	0.07	24.9	4500	103	P	
109	**Ag**	1	**0.007**	ug/l	0.01	57.7	4500	103	P	
111	**Cd**	1	**0.011**	ug/l	0.01	53.5	4500	103	P	
118	**Sn**	1	**0.164**	ug/l	0.16	15.0	4500	103	P	
123	**Sb**	1	**0.040**	ug/l	0.04	11.7	4500	103	P	
135	**Ba**	1	**0.017**	ug/l	0.02	74.3	4500	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	24.2	45	209	P	
205	**Tl**	1	**0.190**	ug/l	0.19	6.1	4500	209	P	
208	**Pb**	1	**0.011**	ug/l	0.01	19.4	4500	209	P	
238	**U**	1	**0.014**	ug/l	0.01	27.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	99196	0.75	127500	**77.8**	30 - 125	
45	Sc	1	1657566	2.92	1680000	**98.7**	30 - 125	
74	Ge	1	3982032	1.17	3781000	**105.3**	30 - 125	
103	Rh	1	5759250	1.38	5317000	**108.3**	30 - 125	
165	Ho	1	2595600	2.00	2392000	**108.5**	30 - 125	
175	Lu	1	2174940	1.41	2020000	**107.7**	30 - 125	
209	Bi	1	2719492	1.29	2513000	**108.2**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\037SMPL.D\037SMPL.D#
Date Acquired: Sep 14 2011 11:33 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-20-A Vial Number: 2201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.004**	ug/l	-3.76	55.2	900	6	P	
23	Na	1	**41.980**	ug/l	41,980.00	5.0	450000	6	P	
24	Mg	1	**47.780**	ug/l	47,780.00	1.0	450000	6	P	
27	Al	1	**211.200**	ug/l	211,200.00	2.5	450000	6	P	
31	P	1	**16.040**	ug/l	16,040.00	5.1	450000	6	P	
39	K	1	**35.270**	ug/l	35,270.00	2.2	450000	45	P	
44	Ca	1	**14.460**	ug/l	14,460.00	2.9	450000	45	P	
47	Ti	1	**4.982**	ug/l	4,982.00	1.9	4500	45	P	
51	V	1	**1.196**	ug/l	1,196.00	5.2	4500	45	P	
52	Cr	1	**0.104**	ug/l	103.80	12.7	4500	45	P	
55	Mn	1	**141.200**	ug/l	141,200.00	1.1	4500	45	A	
57	Fe	1	**1157.000**	ug/l	1,157,000.00	1.4	450000	74	P	
59	Co	1	**0.509**	ug/l	509.30	1.4	4500	74	P	
60	Ni	1	**0.064**	ug/l	63.98	24.1	4500	74	P	
63	Cu	1	**3.792**	ug/l	3,792.00	1.6	4500	74	P	
66	Zn	1	**4.988**	ug/l	4,988.00	3.2	4500	74	P	
75	As	1	**178.900**	ug/l	178,900.00	1.2	4500	74	P	
78	Se	1	**0.060**	ug/l	59.98	21.6	4500	74	P	
88	Sr	1	**0.064**	ug/l	64.34	9.0	4500	74	P	
95	Mo	1	**0.078**	ug/l	78.09	6.5	4500	103	P	
109	Ag	1	**0.056**	ug/l	56.40	4.0	4500	103	P	
111	Cd	1	**0.037**	ug/l	37.07	27.7	4500	103	P	
118	Sn	1	**0.118**	ug/l	117.50	9.2	4500	103	P	
123	Sb	1	**1.187**	ug/l	1,187.00	0.6	4500	103	P	
135	Ba	1	**1.046**	ug/l	1,046.00	7.0	4500	103	P	
200	Hg	1	**0.031**	ug/l	30.90	12.7	45	209	P	
205	Tl	1	**0.156**	ug/l	156.10	5.4	4500	209	P	
208	Pb	1	**3.908**	ug/l	3,908.00	2.5	4500	209	P	
238	U	1	**0.059**	ug/l	58.58	2.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	95900	1.03	127500	**75.2**	30	-	125	
45	Sc	1	1617450	0.38	1680000	**96.3**	30	-	125	
74	Ge	1	3962930	1.49	3781000	**104.8**	30	-	125	
103	Rh	1	5651826	2.72	5317000	**106.3**	30	-	125	
165	Ho	1	2589041	1.63	2392000	**108.2**	30	-	125	
175	Lu	1	2155400	1.84	2020000	**106.7**	30	-	125	
209	Bi	1	2679319	1.77	2513000	**106.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\038SMPL.D\038SMPL.D#
Date Acquired: Sep 14 2011 11:37 am Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-4-E Vial Number: 2202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.007**	ug/l	6.59	58.9	900	6	P	
23	**Na**	1	**51.300**	ug/l	51,300.00	2.8	450000	6	P	
24	**Mg**	1	**108.800**	ug/l	108,800.00	0.8	450000	6	P	
27	**Al**	1	**882.300**	ug/l	882,300.00	0.8	450000	6	P	
31	**P**	1	**14.550**	ug/l	14,550.00	11.4	450000	6	P	
39	**K**	1	**27.600**	ug/l	27,600.00	14.2	450000	45	P	
44	**Ca**	1	**143.400**	ug/l	143,400.00	0.8	450000	45	P	
47	**Ti**	1	**50.730**	ug/l	50,730.00	2.2	4500	45	P	
51	**V**	1	**2.004**	ug/l	2,004.00	3.2	4500	45	P	
52	**Cr**	1	**0.090**	ug/l	89.88	20.0	4500	45	P	
55	**Mn**	1	**37.510**	ug/l	37,510.00	2.7	4500	45	P	
57	**Fe**	1	**872.900**	ug/l	872,900.00	0.9	450000	74	P	
59	**Co**	1	**0.418**	ug/l	417.70	1.6	4500	74	P	
60	**Ni**	1	**0.105**	ug/l	105.20	5.4	4500	74	P	
63	**Cu**	1	**2.128**	ug/l	2,128.00	2.2	4500	74	P	
66	**Zn**	1	**1.444**	ug/l	1,444.00	3.5	4500	74	P	
75	**As**	1	**0.458**	ug/l	457.60	12.1	4500	74	P	
78	**Se**	1	**0.079**	ug/l	78.81	17.2	4500	74	P	
88	**Sr**	1	**2.064**	ug/l	2,064.00	2.6	4500	74	P	
95	**Mo**	1	**0.013**	ug/l	13.41	51.9	4500	103	P	
109	**Ag**	1	**0.000**	ug/l	-0.45	136.7	4500	103	P	
111	**Cd**	1	**0.007**	ug/l	6.91	31.3	4500	103	P	
118	**Sn**	1	**0.093**	ug/l	93.27	22.7	4500	103	P	
123	**Sb**	1	**0.007**	ug/l	6.82	30.1	4500	103	P	
135	**Ba**	1	**6.360**	ug/l	6,360.00	4.8	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	10.15	12.6	45	209	P	
205	**Tl**	1	**0.035**	ug/l	34.99	14.4	4500	209	P	
208	**Pb**	1	**0.242**	ug/l	242.40	6.7	4500	209	P	
238	**U**	1	**0.014**	ug/l	14.19	6.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	95786	0.48	127500	**75.1**	30	-	125	
45	Sc	1	1628010	2.06	1680000	**96.9**	30	-	125	
74	Ge	1	3939333	0.57	3781000	**104.2**	30	-	125	
103	Rh	1	5619153	1.02	5317000	**105.7**	30	-	125	
165	Ho	1	2528618	0.93	2392000	**105.7**	30	-	125	
175	Lu	1	2159189	0.60	2020000	**106.9**	30	-	125	
209	Bi	1	2628521	1.26	2513000	**104.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\039SMPL.D\039SMPL.D#
Date Acquired: Sep 14 2011 11:41 am Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-5-E Vial Number: 2203
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	5.36	152.1	900	6	P	
23	**Na**	1	**50.860**	ug/l	50,860.00	2.4	450000	6	P	
24	**Mg**	1	**111.100**	ug/l	111,100.00	0.6	450000	6	P	
27	**Al**	1	**929.700**	ug/l	929,700.00	0.7	450000	6	P	
31	**P**	1	**14.940**	ug/l	14,940.00	8.4	450000	6	P	
39	**K**	1	**29.030**	ug/l	29,030.00	15.3	450000	45	P	
44	**Ca**	1	**166.700**	ug/l	166,700.00	3.9	450000	45	P	
47	**Ti**	1	**63.780**	ug/l	63,780.00	3.8	4500	45	P	
51	**V**	1	**2.357**	ug/l	2,357.00	5.1	4500	45	P	
52	**Cr**	1	**0.061**	ug/l	61.37	24.2	4500	45	P	
55	**Mn**	1	**9.195**	ug/l	9,195.00	4.3	4500	45	P	
57	**Fe**	1	**843.200**	ug/l	843,200.00	1.4	450000	74	P	
59	**Co**	1	**0.315**	ug/l	314.70	7.2	4500	74	P	
60	**Ni**	1	**0.116**	ug/l	115.90	9.9	4500	74	P	
63	**Cu**	1	**2.164**	ug/l	2,164.00	2.4	4500	74	P	
66	**Zn**	1	**1.433**	ug/l	1,433.00	6.6	4500	74	P	
75	**As**	1	**0.125**	ug/l	125.10	17.9	4500	74	P	
78	**Se**	1	**0.034**	ug/l	34.22	185.9	4500	74	P	
88	**Sr**	1	**1.841**	ug/l	1,841.00	2.9	4500	74	P	
95	**Mo**	1	**0.001**	ug/l	1.18	1087.5	4500	103	P	
109	**Ag**	1	**0.000**	ug/l	0.37	424.5	4500	103	P	
111	**Cd**	1	**0.013**	ug/l	13.20	77.5	4500	103	P	
118	**Sn**	1	**0.077**	ug/l	76.74	26.9	4500	103	P	
123	**Sb**	1	**0.002**	ug/l	2.31	331.1	4500	103	P	
135	**Ba**	1	**4.648**	ug/l	4,648.00	2.6	4500	103	P	
200	**Hg**	1	**0.005**	ug/l	5.20	27.2	45	209	P	
205	**Tl**	1	**0.018**	ug/l	18.10	19.8	4500	209	P	
208	**Pb**	1	**0.227**	ug/l	226.70	3.9	4500	209	P	
238	**U**	1	**0.014**	ug/l	14.09	9.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	96539	1.11	127500	**75.7**	30	-	125	
45	Sc	1	1636299	3.41	1680000	**97.4**	30	-	125	
74	Ge	1	3967134	1.24	3781000	**104.9**	30	-	125	
103	Rh	1	5625739	2.22	5317000	**105.8**	30	-	125	
165	Ho	1	2586964	1.28	2392000	**108.2**	30	-	125	
175	Lu	1	2185161	2.06	2020000	**108.2**	30	-	125	
209	Bi	1	2647510	2.08	2513000	**105.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\040SMPL.D\040SMPL.D#
Date Acquired: Sep 14 2011 11:46 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.070**	ug/l	51.07	1.1	900	6	P	
23	**Na**	1	**5492.000**	ug/l	5,492.00	1.6	450000	6	A	
24	**Mg**	1	**5421.000**	ug/l	5,421.00	1.9	450000	6	A	
27	**Al**	1	**541.200**	ug/l	541.20	0.6	450000	6	P	
31	**P**	1	**5484.000**	ug/l	5,484.00	0.8	450000	6	P	
39	**K**	1	**4735.000**	ug/l	4,735.00	2.2	450000	45	A	
44	**Ca**	1	**4821.000**	ug/l	4,821.00	1.1	450000	45	P	
47	**Ti**	1	**49.280**	ug/l	49.28	2.4	4500	45	P	
51	**V**	1	**49.730**	ug/l	49.73	1.9	4500	45	P	
52	**Cr**	1	**49.970**	ug/l	49.97	1.3	4500	45	P	
55	**Mn**	1	**50.900**	ug/l	50.90	1.8	4500	45	P	
57	**Fe**	1	**4807.000**	ug/l	4,807.00	0.7	450000	74	A	
59	**Co**	1	**47.550**	ug/l	47.55	1.1	4500	74	P	
60	**Ni**	1	**48.040**	ug/l	48.04	1.3	4500	74	P	
63	**Cu**	1	**48.770**	ug/l	48.77	1.2	4500	74	P	
66	**Zn**	1	**49.140**	ug/l	49.14	0.6	4500	74	P	
75	**As**	1	**48.880**	ug/l	48.88	1.5	4500	74	P	
78	**Se**	1	**48.860**	ug/l	48.86	0.9	4500	74	P	
88	**Sr**	1	**49.590**	ug/l	49.59	1.3	4500	74	P	
95	**Mo**	1	**48.010**	ug/l	48.01	0.4	4500	103	P	
109	**Ag**	1	**48.380**	ug/l	48.38	0.3	4500	103	P	
111	**Cd**	1	**48.740**	ug/l	48.74	0.4	4500	103	P	
118	**Sn**	1	**48.720**	ug/l	48.72	0.7	4500	103	P	
123	**Sb**	1	**49.080**	ug/l	49.08	0.3	4500	103	P	
135	**Ba**	1	**49.110**	ug/l	49.11	0.4	4500	103	P	
200	**Hg**	1	**2.397**	ug/l	2.40	3.4	45	209	P	
205	**Tl**	1	**48.080**	ug/l	48.08	4.0	4500	209	A	
208	**Pb**	1	**48.420**	ug/l	48.42	2.6	4500	209	P	
238	**U**	1	**48.710**	ug/l	48.71	1.2	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	95982	0.81	127500	**75.3**	30	-	125	
45	Sc	1	1626900	1.61	1680000	**96.8**	30	-	125	
74	Ge	1	3980201	1.29	3781000	**105.3**	30	-	125	
103	Rh	1	5612855	0.19	5317000	**105.6**	30	-	125	
165	Ho	1	2571495	2.29	2392000	**107.5**	30	-	125	
175	Lu	1	2211819	1.54	2020000	**109.5**	30	-	125	
209	Bi	1	2668468	1.88	2513000	**106.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\041SMPL.D\041SMPL.D#
Date Acquired: Sep 14 2011 11:50 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.00	221.7	900	6	P	
23	**Na**	1	**40.050**	ug/l	40.05	3.4	450000	6	P	
24	**Mg**	1	**1.145**	ug/l	1.15	24.8	450000	6	P	
27	**Al**	1	**0.134**	ug/l	0.13	93.1	450000	6	P	
31	**P**	1	**2.653**	ug/l	2.65	112.3	450000	6	P	
39	**K**	1	**-6.102**	ug/l	-6.10	68.7	450000	45	P	
44	**Ca**	1	**0.861**	ug/l	0.86	34.0	450000	45	P	
47	**Ti**	1	**0.027**	ug/l	0.03	33.8	4500	45	P	
51	**V**	1	**0.019**	ug/l	0.02	201.4	4500	45	P	
52	**Cr**	1	**0.006**	ug/l	0.01	186.1	4500	45	P	
55	**Mn**	1	**0.000**	ug/l	0.00	6541.8	4500	45	P	
57	**Fe**	1	**1.726**	ug/l	1.73	32.5	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.01	47.3	4500	74	P	
60	**Ni**	1	**0.003**	ug/l	0.00	136.9	4500	74	P	
63	**Cu**	1	**0.124**	ug/l	0.12	11.0	4500	74	P	
66	**Zn**	1	**0.027**	ug/l	0.03	87.1	4500	74	P	
75	**As**	1	**0.020**	ug/l	0.02	83.4	4500	74	P	
78	**Se**	1	**0.047**	ug/l	0.05	69.5	4500	74	P	
88	**Sr**	1	**0.015**	ug/l	0.02	62.8	4500	74	P	
95	**Mo**	1	**0.069**	ug/l	0.07	21.1	4500	103	P	
109	**Ag**	1	**0.007**	ug/l	0.01	23.2	4500	103	P	
111	**Cd**	1	**0.018**	ug/l	0.02	26.9	4500	103	P	
118	**Sn**	1	**0.143**	ug/l	0.14	17.0	4500	103	P	
123	**Sb**	1	**0.040**	ug/l	0.04	35.2	4500	103	P	
135	**Ba**	1	**0.027**	ug/l	0.03	7.7	4500	103	P	
200	**Hg**	1	**0.013**	ug/l	0.01	27.7	45	209	P	
205	**Tl**	1	**0.198**	ug/l	0.20	10.9	4500	209	P	
208	**Pb**	1	**0.009**	ug/l	0.01	33.2	4500	209	P	
238	**U**	1	**0.016**	ug/l	0.02	15.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	97055	0.71	127500	**76.1**	30	-	125	
45	Sc	1	1626971	4.36	1680000	**96.8**	30	-	125	
74	Ge	1	3953848	1.68	3781000	**104.6**	30	-	125	
103	Rh	1	5640426	1.32	5317000	**106.1**	30	-	125	
165	Ho	1	2545034	2.07	2392000	**106.4**	30	-	125	
175	Lu	1	2190780	1.55	2020000	**108.5**	30	-	125	
209	Bi	1	2693944	0.89	2513000	**107.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\042SMPL.D\042SMPL.D#
Date Acquired: Sep 14 2011 11:55 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95276/26-A Vial Number: 2301
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	387.4	900	6	P	
23	**Na**	1	**45.410**	ug/l	45.41	2.3	450000	6	P	
24	**Mg**	1	**1.546**	ug/l	1.55	9.3	450000	6	P	
27	**Al**	1	**0.642**	ug/l	0.64	30.7	450000	6	P	
31	**P**	1	**1.990**	ug/l	1.99	45.2	450000	6	P	
39	**K**	1	**-4.799**	ug/l	-4.80	71.3	450000	45	P	
44	**Ca**	1	**4.925**	ug/l	4.93	9.6	450000	45	P	
47	**Ti**	1	**0.048**	ug/l	0.05	47.3	4500	45	P	
51	**V**	1	**0.017**	ug/l	0.02	38.0	4500	45	P	
52	**Cr**	1	**0.068**	ug/l	0.07	16.5	4500	45	P	
55	**Mn**	1	**0.029**	ug/l	0.03	16.6	4500	45	P	
57	**Fe**	1	**2.457**	ug/l	2.46	13.1	450000	74	P	
59	**Co**	1	**0.005**	ug/l	0.01	25.9	4500	74	P	
60	**Ni**	1	**0.078**	ug/l	0.08	16.1	4500	74	P	
63	**Cu**	1	**0.142**	ug/l	0.14	12.0	4500	74	P	
66	**Zn**	1	**0.147**	ug/l	0.15	5.8	4500	74	P	
75	**As**	1	**0.026**	ug/l	0.03	56.7	4500	74	P	
78	**Se**	1	**0.063**	ug/l	0.06	36.5	4500	74	P	
88	**Sr**	1	**0.021**	ug/l	0.02	10.9	4500	74	P	
95	**Mo**	1	**0.023**	ug/l	0.02	23.9	4500	103	P	
109	**Ag**	1	**0.002**	ug/l	0.00	87.2	4500	103	P	
111	**Cd**	1	**0.007**	ug/l	0.01	85.1	4500	103	P	
118	**Sn**	1	**0.083**	ug/l	0.08	21.4	4500	103	P	
123	**Sb**	1	**0.008**	ug/l	0.01	82.6	4500	103	P	
135	**Ba**	1	**0.040**	ug/l	0.04	54.7	4500	103	P	
200	**Hg**	1	**0.013**	ug/l	0.01	28.9	45	209	P	
205	**Tl**	1	**0.067**	ug/l	0.07	15.3	4500	209	P	
208	**Pb**	1	**0.011**	ug/l	0.01	84.4	4500	209	P	
238	**U**	1	**0.004**	ug/l	0.00	73.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	95435	0.49	127500	**74.9**	30	-	125	
45	Sc	1	1618619	2.67	1680000	**96.3**	30	-	125	
74	Ge	1	3953119	1.57	3781000	**104.6**	30	-	125	
103	Rh	1	5706379	1.08	5317000	**107.3**	30	-	125	
165	Ho	1	2555656	0.87	2392000	**106.8**	30	-	125	
175	Lu	1	2186634	1.32	2020000	**108.2**	30	-	125	
209	Bi	1	2677778	2.63	2513000	**106.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\043SMPL.D\043SMPL.D#
Date Acquired: Sep 14 2011 11:59 am Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-1-A Vial Number: 2302
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.01	62.4	900	6	P	
23	**Na**	1	**621.500**	ug/l	621.50	2.9	450000	6	A	
24	**Mg**	1	**19.360**	ug/l	19.36	4.9	450000	6	P	
27	**Al**	1	**22.390**	ug/l	22.39	2.7	450000	6	P	
31	**P**	1	**113.800**	ug/l	113.80	5.9	450000	6	P	
39	**K**	1	**1472.000**	ug/l	1,472.00	2.5	450000	45	A	
44	**Ca**	1	**69.810**	ug/l	69.81	1.0	450000	45	P	
47	**Ti**	1	**0.581**	ug/l	0.58	8.0	4500	45	P	
51	**V**	1	**0.024**	ug/l	0.02	52.2	4500	45	P	
52	**Cr**	1	**0.076**	ug/l	0.08	8.2	4500	45	P	
55	**Mn**	1	**1.571**	ug/l	1.57	3.4	4500	45	P	
57	**Fe**	1	**21.010**	ug/l	21.01	3.1	450000	74	P	
59	**Co**	1	**0.022**	ug/l	0.02	11.8	4500	74	P	
60	**Ni**	1	**0.101**	ug/l	0.10	11.2	4500	74	P	
63	**Cu**	1	**0.225**	ug/l	0.22	7.0	4500	74	P	
66	**Zn**	1	**1.715**	ug/l	1.72	2.2	4500	74	P	
75	**As**	1	**0.022**	ug/l	0.02	67.5	4500	74	P	
78	**Se**	1	**0.054**	ug/l	0.05	112.5	4500	74	P	
88	**Sr**	1	**0.615**	ug/l	0.61	1.9	4500	74	P	
95	**Mo**	1	**0.042**	ug/l	0.04	18.8	4500	103	P	
109	**Ag**	1	**0.022**	ug/l	0.02	11.4	4500	103	P	
111	**Cd**	1	**0.029**	ug/l	0.03	41.3	4500	103	P	
118	**Sn**	1	**0.235**	ug/l	0.23	9.4	4500	103	P	
123	**Sb**	1	**0.016**	ug/l	0.02	17.9	4500	103	P	
135	**Ba**	1	**0.433**	ug/l	0.43	5.0	4500	103	P	
200	**Hg**	1	**0.009**	ug/l	0.01	20.6	45	209	P	
205	**Tl**	1	**0.033**	ug/l	0.03	25.1	4500	209	P	
208	**Pb**	1	**0.097**	ug/l	0.10	15.5	4500	209	P	
238	**U**	1	**-0.001**	ug/l	0.00	147.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	97308	0.80	127500	**76.3**	30	-	125	
45	Sc	1	1620578	0.19	1680000	**96.5**	30	-	125	
74	Ge	1	4005400	1.17	3781000	**105.9**	30	-	125	
103	Rh	1	5701505	0.34	5317000	**107.2**	30	-	125	
165	Ho	1	2587564	0.37	2392000	**108.2**	30	-	125	
175	Lu	1	2198285	1.18	2020000	**108.8**	30	-	125	
209	Bi	1	2707944	1.29	2513000	**107.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\044SMPL.D\044SMPL.D#
Date Acquired: Sep 14 2011 12:03 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-1-A SD Vial Number: 2303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.004**	ug/l	-0.02	361.7	900	6	P	
23	**Na**	1	**495.100**	ug/l	2,475.50	2.8	450000	6	A	
24	**Mg**	1	**4.631**	ug/l	23.16	1.4	450000	6	P	
27	**Al**	1	**1.961**	ug/l	9.81	9.1	450000	6	P	
31	**P**	1	**26.190**	ug/l	130.95	4.3	450000	6	P	
39	**K**	1	**83.080**	ug/l	415.40	2.6	450000	45	P	
44	**Ca**	1	**22.260**	ug/l	111.30	4.8	450000	45	P	
47	**Ti**	1	**0.055**	ug/l	0.27	90.7	4500	45	P	
51	**V**	1	**-0.031**	ug/l	-0.15	38.1	4500	45	P	
52	**Cr**	1	**0.029**	ug/l	0.14	28.7	4500	45	P	
55	**Mn**	1	**0.158**	ug/l	0.79	0.8	4500	45	P	
57	**Fe**	1	**1.505**	ug/l	7.53	12.9	450000	74	P	
59	**Co**	1	**0.002**	ug/l	0.01	20.7	4500	74	P	
60	**Ni**	1	**0.025**	ug/l	0.12	74.8	4500	74	P	
63	**Cu**	1	**0.123**	ug/l	0.61	7.7	4500	74	P	
66	**Zn**	1	**0.291**	ug/l	1.45	9.7	4500	74	P	
75	**As**	1	**0.005**	ug/l	0.03	293.1	4500	74	P	
78	**Se**	1	**0.021**	ug/l	0.11	204.3	4500	74	P	
88	**Sr**	1	**0.040**	ug/l	0.20	22.2	4500	74	P	
95	**Mo**	1	**0.010**	ug/l	0.05	93.9	4500	103	P	
109	**Ag**	1	**0.001**	ug/l	0.01	47.6	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.01	851.4	4500	103	P	
118	**Sn**	1	**0.097**	ug/l	0.48	10.3	4500	103	P	
123	**Sb**	1	**0.024**	ug/l	0.12	12.7	4500	103	P	
135	**Ba**	1	**0.039**	ug/l	0.20	25.9	4500	103	P	
200	**Hg**	1	**0.006**	ug/l	0.03	69.5	45	209	P	
205	**Tl**	1	**0.021**	ug/l	0.11	7.6	4500	209	P	
208	**Pb**	1	**0.024**	ug/l	0.12	48.8	4500	209	P	
238	**U**	1	**-0.001**	ug/l	0.00	41.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	95376	0.70	127500	**74.8**	30	-	125	
45	Sc	1	1605353	1.66	1680000	**95.6**	30	-	125	
74	Ge	1	3940441	0.79	3781000	**104.2**	30	-	125	
103	Rh	1	5649425	2.14	5317000	**106.3**	30	-	125	
165	Ho	1	2588771	0.50	2392000	**108.2**	30	-	125	
175	Lu	1	2201806	0.61	2020000	**109.0**	30	-	125	
209	Bi	1	2691082	1.61	2513000	**107.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\045SMPL.D\045SMPL.D#
Date Acquired: Sep 14 2011 12:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-1-A Vial Number: 2304
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	0.00	106.6	900	6	P	
23	**Na**	1	**2111.000**	ug/l	2,111.00	1.7	450000	6	A	
24	**Mg**	1	**21.060**	ug/l	21.06	0.8	450000	6	P	
27	**Al**	1	**5.528**	ug/l	5.53	4.4	450000	6	P	
31	**P**	1	**109.500**	ug/l	109.50	6.4	450000	6	P	
39	**K**	1	**427.000**	ug/l	427.00	2.7	450000	45	P	
44	**Ca**	1	**104.500**	ug/l	104.50	0.7	450000	45	P	
47	**Ti**	1	**0.082**	ug/l	0.08	19.2	4500	45	P	
51	**V**	1	**-0.001**	ug/l	0.00	4526.2	4500	45	P	
52	**Cr**	1	**0.120**	ug/l	0.12	9.4	4500	45	P	
55	**Mn**	1	**0.766**	ug/l	0.77	2.1	4500	45	P	
57	**Fe**	1	**6.969**	ug/l	6.97	4.6	450000	74	P	
59	**Co**	1	**0.006**	ug/l	0.01	34.3	4500	74	P	
60	**Ni**	1	**0.133**	ug/l	0.13	4.2	4500	74	P	
63	**Cu**	1	**0.172**	ug/l	0.17	4.0	4500	74	P	
66	**Zn**	1	**1.025**	ug/l	1.03	6.7	4500	74	P	
75	**As**	1	**0.023**	ug/l	0.02	52.6	4500	74	P	
78	**Se**	1	**0.017**	ug/l	0.02	150.8	4500	74	P	
88	**Sr**	1	**0.492**	ug/l	0.49	1.2	4500	74	P	
95	**Mo**	1	**0.028**	ug/l	0.03	8.4	4500	103	P	
109	**Ag**	1	**0.014**	ug/l	0.01	10.0	4500	103	P	
111	**Cd**	1	**0.005**	ug/l	0.01	190.9	4500	103	P	
118	**Sn**	1	**0.186**	ug/l	0.19	3.9	4500	103	P	
123	**Sb**	1	**0.123**	ug/l	0.12	5.1	4500	103	P	
135	**Ba**	1	**0.174**	ug/l	0.17	13.0	4500	103	P	
200	**Hg**	1	**0.006**	ug/l	0.01	5.1	45	209	P	
205	**Tl**	1	**0.015**	ug/l	0.02	15.3	4500	209	P	
208	**Pb**	1	**0.086**	ug/l	0.09	16.3	4500	209	P	
238	**U**	1	**-0.001**	ug/l	0.00	20.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	96549	0.70	127500	**75.7**	30	-	125	
45	Sc	1	1623578	1.52	1680000	**96.6**	30	-	125	
74	Ge	1	4028058	0.94	3781000	**106.5**	30	-	125	
103	Rh	1	5782234	0.46	5317000	**108.7**	30	-	125	
165	Ho	1	2596691	0.67	2392000	**108.6**	30	-	125	
175	Lu	1	2191369	1.47	2020000	**108.5**	30	-	125	
209	Bi	1	2698634	0.89	2513000	**107.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\046SMPL.D\046SMPL.D#
Date Acquired: Sep 14 2011 12:12 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-1-B DU Vial Number: 2305
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.00	356.3	900	6	P	
23	**Na**	1	**2119.000**	ug/l	2,119.00	1.5	450000	6	A	
24	**Mg**	1	**20.990**	ug/l	20.99	1.2	450000	6	P	
27	**Al**	1	**5.039**	ug/l	5.04	2.0	450000	6	P	
31	**P**	1	**114.900**	ug/l	114.90	3.1	450000	6	P	
39	**K**	1	**425.700**	ug/l	425.70	2.5	450000	45	P	
44	**Ca**	1	**105.000**	ug/l	105.00	2.7	450000	45	P	
47	**Ti**	1	**0.059**	ug/l	0.06	17.5	4500	45	P	
51	**V**	1	**0.004**	ug/l	0.00	397.2	4500	45	P	
52	**Cr**	1	**0.113**	ug/l	0.11	16.9	4500	45	P	
55	**Mn**	1	**0.748**	ug/l	0.75	3.0	4500	45	P	
57	**Fe**	1	**7.240**	ug/l	7.24	7.1	450000	74	P	
59	**Co**	1	**0.006**	ug/l	0.01	46.8	4500	74	P	
60	**Ni**	1	**0.126**	ug/l	0.13	11.0	4500	74	P	
63	**Cu**	1	**0.145**	ug/l	0.15	8.3	4500	74	P	
66	**Zn**	1	**1.111**	ug/l	1.11	6.0	4500	74	P	
75	**As**	1	**0.020**	ug/l	0.02	30.5	4500	74	P	
78	**Se**	1	**0.016**	ug/l	0.02	150.5	4500	74	P	
88	**Sr**	1	**0.191**	ug/l	0.19	4.2	4500	74	P	
95	**Mo**	1	**0.026**	ug/l	0.03	32.4	4500	103	P	
109	**Ag**	1	**0.015**	ug/l	0.01	17.9	4500	103	P	
111	**Cd**	1	**0.011**	ug/l	0.01	63.3	4500	103	P	
118	**Sn**	1	**0.193**	ug/l	0.19	7.2	4500	103	P	
123	**Sb**	1	**0.116**	ug/l	0.12	1.9	4500	103	P	
135	**Ba**	1	**0.170**	ug/l	0.17	8.7	4500	103	P	
200	**Hg**	1	**0.004**	ug/l	0.00	80.4	45	209	P	
205	**Tl**	1	**0.006**	ug/l	0.01	52.7	4500	209	P	
208	**Pb**	1	**0.084**	ug/l	0.08	29.1	4500	209	P	
238	**U**	1	**-0.002**	ug/l	0.00	9.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	95575	0.56	127500	**75.0**	30	-	125	
45	Sc	1	1596249	2.75	1680000	**95.0**	30	-	125	
74	Ge	1	3902193	1.50	3781000	**103.2**	30	-	125	
103	Rh	1	5647233	0.67	5317000	**106.2**	30	-	125	
165	Ho	1	2542142	1.66	2392000	**106.3**	30	-	125	
175	Lu	1	2179884	1.01	2020000	**107.9**	30	-	125	
209	Bi	1	2673184	1.97	2513000	**106.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\047SMPL.D\047SMPL.D#
Date Acquired: Sep 14 2011 12:16 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-1-C MS Vial Number: 2306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**109.600**	ug/l	109.60	2.2	900	6	P	
23	**Na**	1	**13550.000**	ug/l	13,550.00	0.9	450000	6	A	
24	**Mg**	1	**11530.000**	ug/l	11,530.00	2.4	450000	6	A	
27	**Al**	1	**1147.000**	ug/l	1,147.00	1.7	450000	6	P	
31	**P**	1	**11830.000**	ug/l	11,830.00	1.2	450000	6	P	
39	**K**	1	**10360.000**	ug/l	10,360.00	2.4	450000	45	A	
44	**Ca**	1	**10270.000**	ug/l	10,270.00	2.0	450000	45	P	
47	**Ti**	1	**102.200**	ug/l	102.20	1.8	4500	45	P	
51	**V**	1	**105.500**	ug/l	105.50	3.2	4500	45	M	
52	**Cr**	1	**106.000**	ug/l	106.00	2.6	4500	45	A	
55	**Mn**	1	**107.100**	ug/l	107.10	1.8	4500	45	P	
57	**Fe**	1	**9928.000**	ug/l	9,928.00	2.4	450000	74	A	
59	**Co**	1	**100.700**	ug/l	100.70	1.2	4500	74	A	
60	**Ni**	1	**98.530**	ug/l	98.53	1.2	4500	74	P	
63	**Cu**	1	**100.200**	ug/l	100.20	0.8	4500	74	P	
66	**Zn**	1	**102.200**	ug/l	102.20	0.4	4500	74	P	
75	**As**	1	**105.100**	ug/l	105.10	1.1	4500	74	P	
78	**Se**	1	**103.300**	ug/l	103.30	1.5	4500	74	P	
88	**Sr**	1	**103.700**	ug/l	103.70	1.9	4500	74	A	
95	**Mo**	1	**103.300**	ug/l	103.30	1.3	4500	103	P	
109	**Ag**	1	**102.600**	ug/l	102.60	1.3	4500	103	A	
111	**Cd**	1	**105.500**	ug/l	105.50	1.7	4500	103	P	
118	**Sn**	1	**103.800**	ug/l	103.80	1.3	4500	103	P	
123	**Sb**	1	**106.100**	ug/l	106.10	1.4	4500	103	P	
135	**Ba**	1	**106.000**	ug/l	106.00	1.3	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.01	9.8	45	209	P	
205	**Tl**	1	**99.860**	ug/l	99.86	1.3	4500	209	A	
208	**Pb**	1	**102.700**	ug/l	102.70	1.4	4500	209	A	
238	**U**	1	**103.800**	ug/l	103.80	0.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	93289	0.86	127500	**73.2**	30	-	125	
45	Sc	1	1605744	2.04	1680000	**95.6**	30	-	125	
74	Ge	1	3945151	0.60	3781000	**104.3**	30	-	125	
103	Rh	1	5450062	0.80	5317000	**102.5**	30	-	125	
165	Ho	1	2575748	1.92	2392000	**107.7**	30	-	125	
175	Lu	1	2181431	1.95	2020000	**108.0**	30	-	125	
209	Bi	1	2627942	1.42	2513000	**104.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\048SMPL.D\048SMPL.D#
Date Acquired: Sep 14 2011 12:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-1-D MSD Vial Number: 2307
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**107.300**	ug/l	107.30	0.7	900	6	P	
23	**Na**	1	**13310.000**	ug/l	13,310.00	1.5	450000	6	A	
24	**Mg**	1	**11110.000**	ug/l	11,110.00	2.3	450000	6	A	
27	**Al**	1	**1113.000**	ug/l	1,113.00	1.4	450000	6	P	
31	**P**	1	**11410.000**	ug/l	11,410.00	1.8	450000	6	P	
39	**K**	1	**10230.000**	ug/l	10,230.00	1.2	450000	45	A	
44	**Ca**	1	**10170.000**	ug/l	10,170.00	1.9	450000	45	P	
47	**Ti**	1	**101.300**	ug/l	101.30	2.5	4500	45	P	
51	**V**	1	**103.200**	ug/l	103.20	1.9	4500	45	P	
52	**Cr**	1	**103.800**	ug/l	103.80	1.2	4500	45	A	
55	**Mn**	1	**105.200**	ug/l	105.20	1.8	4500	45	P	
57	**Fe**	1	**9616.000**	ug/l	9,616.00	1.8	450000	74	A	
59	**Co**	1	**97.210**	ug/l	97.21	1.6	4500	74	A	
60	**Ni**	1	**96.270**	ug/l	96.27	1.6	4500	74	P	
63	**Cu**	1	**98.050**	ug/l	98.05	1.6	4500	74	P	
66	**Zn**	1	**100.500**	ug/l	100.50	1.5	4500	74	P	
75	**As**	1	**102.900**	ug/l	102.90	1.3	4500	74	P	
78	**Se**	1	**101.100**	ug/l	101.10	1.1	4500	74	P	
88	**Sr**	1	**100.400**	ug/l	100.40	1.5	4500	74	P	
95	**Mo**	1	**101.600**	ug/l	101.60	0.7	4500	103	P	
109	**Ag**	1	**100.500**	ug/l	100.50	0.4	4500	103	A	
111	**Cd**	1	**104.200**	ug/l	104.20	1.0	4500	103	P	
118	**Sn**	1	**102.800**	ug/l	102.80	0.9	4500	103	P	
123	**Sb**	1	**104.400**	ug/l	104.40	0.2	4500	103	P	
135	**Ba**	1	**103.800**	ug/l	103.80	0.7	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.01	20.2	45	209	P	
205	**Tl**	1	**99.680**	ug/l	99.68	0.6	4500	209	A	
208	**Pb**	1	**101.800**	ug/l	101.80	1.3	4500	209	A	
238	**U**	1	**102.700**	ug/l	102.70	1.1	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	92887	2.10	127500	**72.9**	30	-	125	
45	Sc	1	1561936	2.36	1680000	**93.0**	30	-	125	
74	Ge	1	3858581	1.38	3781000	**102.1**	30	-	125	
103	Rh	1	5332437	0.69	5317000	**100.3**	30	-	125	
165	Ho	1	2548777	1.46	2392000	**106.6**	30	-	125	
175	Lu	1	2178944	0.99	2020000	**107.9**	30	-	125	
209	Bi	1	2575196	1.33	2513000	**102.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\049SMPL.D\049SMPL.D#
Date Acquired: Sep 14 2011 12:25 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-1-A PDS Vial Number: 2308
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**109.400**	ug/l	109.40	0.8	900	6	P	
23	**Na**	1	**13310.000**	ug/l	13,310.00	0.7	450000	6	A	
24	**Mg**	1	**11270.000**	ug/l	11,270.00	1.5	450000	6	A	
27	**Al**	1	**1132.000**	ug/l	1,132.00	1.6	450000	6	P	
31	**P**	1	**11620.000**	ug/l	11,620.00	0.9	450000	6	P	
39	**K**	1	**10300.000**	ug/l	10,300.00	0.5	450000	45	A	
44	**Ca**	1	**10130.000**	ug/l	10,130.00	0.8	450000	45	P	
47	**Ti**	1	**101.400**	ug/l	101.40	0.6	4500	45	P	
51	**V**	1	**102.600**	ug/l	102.60	0.5	4500	45	P	
52	**Cr**	1	**103.800**	ug/l	103.80	0.8	4500	45	A	
55	**Mn**	1	**104.700**	ug/l	104.70	0.1	4500	45	P	
57	**Fe**	1	**10060.000**	ug/l	10,060.00	1.4	450000	74	A	
59	**Co**	1	**102.100**	ug/l	102.10	0.8	4500	74	A	
60	**Ni**	1	**99.120**	ug/l	99.12	0.3	4500	74	P	
63	**Cu**	1	**100.700**	ug/l	100.70	0.2	4500	74	P	
66	**Zn**	1	**102.700**	ug/l	102.70	0.5	4500	74	P	
75	**As**	1	**105.800**	ug/l	105.80	0.4	4500	74	P	
78	**Se**	1	**105.000**	ug/l	105.00	0.7	4500	74	P	
88	**Sr**	1	**102.900**	ug/l	102.90	0.2	4500	74	M	
95	**Mo**	1	**104.500**	ug/l	104.50	0.8	4500	103	P	
109	**Ag**	1	**103.100**	ug/l	103.10	1.8	4500	103	A	
111	**Cd**	1	**105.800**	ug/l	105.80	0.6	4500	103	P	
118	**Sn**	1	**104.400**	ug/l	104.40	1.0	4500	103	P	
123	**Sb**	1	**106.900**	ug/l	106.90	0.9	4500	103	P	
135	**Ba**	1	**106.700**	ug/l	106.70	0.3	4500	103	P	
200	**Hg**	1	**0.006**	ug/l	0.01	26.4	45	209	P	
205	**Tl**	1	**102.300**	ug/l	102.30	0.3	4500	209	A	
208	**Pb**	1	**103.500**	ug/l	103.50	2.6	4500	209	A	
238	**U**	1	**104.400**	ug/l	104.40	1.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	93719	1.24	127500	**73.5**	30	-	125	
45	Sc	1	1597931	0.43	1680000	**95.1**	30	-	125	
74	Ge	1	3829563	0.55	3781000	**101.3**	30	-	125	
103	Rh	1	5309615	0.60	5317000	**99.9**	30	-	125	
165	Ho	1	2580248	3.03	2392000	**107.9**	30	-	125	
175	Lu	1	2162498	0.29	2020000	**107.1**	30	-	125	
209	Bi	1	2577577	2.66	2513000	**102.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\050SMPL.D\050SMPL.D#
Date Acquired: Sep 14 2011 12:29 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95276/27-A Vial Number: 2309
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#
Dilution Factor: **1.00** Final Dil Factor: **1.00**

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**109.900**	ug/l	109.90	1.7	900	6	P	
23	**Na**	1	**11480.000**	ug/l	11,480.00	1.9	450000	6	A	
24	**Mg**	1	**11380.000**	ug/l	11,380.00	1.5	450000	6	A	
27	**Al**	1	**1139.000**	ug/l	1,139.00	1.1	450000	6	P	
31	**P**	1	**11740.000**	ug/l	11,740.00	1.3	450000	6	P	
39	**K**	1	**10310.000**	ug/l	10,310.00	2.2	450000	45	A	
44	**Ca**	1	**10530.000**	ug/l	10,530.00	2.6	450000	45	P	
47	**Ti**	1	**105.600**	ug/l	105.60	2.5	4500	45	P	
51	**V**	1	**107.800**	ug/l	107.80	2.6	4500	45	M	
52	**Cr**	1	**110.100**	ug/l	110.10	0.6	4500	45	A	
55	**Mn**	1	**109.900**	ug/l	109.90	3.0	4500	45	P	
57	**Fe**	1	**10160.000**	ug/l	10,160.00	0.4	450000	74	A	
59	**Co**	1	**103.700**	ug/l	103.70	1.1	4500	74	A	
60	**Ni**	1	**100.500**	ug/l	100.50	1.1	4500	74	P	
63	**Cu**	1	**102.100**	ug/l	102.10	0.2	4500	74	P	
66	**Zn**	1	**105.700**	ug/l	105.70	1.0	4500	74	P	
75	**As**	1	**108.000**	ug/l	108.00	0.7	4500	74	P	
78	**Se**	1	**108.200**	ug/l	108.20	1.1	4500	74	P	
88	**Sr**	1	**107.400**	ug/l	107.40	2.2	4500	74	A	
95	**Mo**	1	**105.100**	ug/l	105.10	1.6	4500	103	P	
109	**Ag**	1	**105.400**	ug/l	105.40	0.7	4500	103	A	
111	**Cd**	1	**107.700**	ug/l	107.70	1.9	4500	103	P	
118	**Sn**	1	**105.200**	ug/l	105.20	2.5	4500	103	P	
123	**Sb**	1	**108.600**	ug/l	108.60	1.2	4500	103	P	
135	**Ba**	1	**107.100**	ug/l	107.10	1.4	4500	103	P	
200	**Hg**	1	**0.005**	ug/l	0.01	37.1	45	209	P	
205	**Tl**	1	**104.300**	ug/l	104.30	1.4	4500	209	A	
208	**Pb**	1	**106.600**	ug/l	106.60	2.1	4500	209	A	
238	**U**	1	**106.000**	ug/l	106.00	1.7	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	95359	1.12	127500	**74.8**	30	-	125	
45	Sc	1	1559635	3.60	1680000	**92.8**	30	-	125	
74	Ge	1	3840523	1.18	3781000	**101.6**	30	-	125	
103	Rh	1	5397983	1.47	5317000	**101.5**	30	-	125	
165	Ho	1	2568743	0.81	2392000	**107.4**	30	-	125	
175	Lu	1	2159639	1.45	2020000	**106.9**	30	-	125	
209	Bi	1	2594283	2.13	2513000	**103.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\051SMPL.D\051SMPL.D#
Date Acquired: Sep 14 2011 12:34 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95276/28-A Vial Number: 2310
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**111.800**	ug/l	111.80	1.1	900	6	P	
23	**Na**	1	**11470.000**	ug/l	11,470.00	1.5	450000	6	A	
24	**Mg**	1	**11600.000**	ug/l	11,600.00	1.3	450000	6	A	
27	**Al**	1	**1145.000**	ug/l	1,145.00	1.0	450000	6	P	
31	**P**	1	**11770.000**	ug/l	11,770.00	0.4	450000	6	P	
39	**K**	1	**10170.000**	ug/l	10,170.00	0.3	450000	45	A	
44	**Ca**	1	**10410.000**	ug/l	10,410.00	1.5	450000	45	P	
47	**Ti**	1	**104.100**	ug/l	104.10	2.0	4500	45	P	
51	**V**	1	**106.900**	ug/l	106.90	1.4	4500	45	P	
52	**Cr**	1	**107.700**	ug/l	107.70	2.5	4500	45	A	
55	**Mn**	1	**109.500**	ug/l	109.50	1.6	4500	45	P	
57	**Fe**	1	**10380.000**	ug/l	10,380.00	0.6	450000	74	A	
59	**Co**	1	**102.800**	ug/l	102.80	0.8	4500	74	A	
60	**Ni**	1	**100.700**	ug/l	100.70	1.6	4500	74	P	
63	**Cu**	1	**102.800**	ug/l	102.80	1.7	4500	74	P	
66	**Zn**	1	**105.700**	ug/l	105.70	1.4	4500	74	P	
75	**As**	1	**108.000**	ug/l	108.00	1.9	4500	74	P	
78	**Se**	1	**106.700**	ug/l	106.70	1.9	4500	74	P	
88	**Sr**	1	**106.000**	ug/l	106.00	2.6	4500	74	A	
95	**Mo**	1	**104.200**	ug/l	104.20	1.2	4500	103	P	
109	**Ag**	1	**105.800**	ug/l	105.80	1.0	4500	103	A	
111	**Cd**	1	**107.700**	ug/l	107.70	1.6	4500	103	P	
118	**Sn**	1	**105.800**	ug/l	105.80	1.5	4500	103	P	
123	**Sb**	1	**107.800**	ug/l	107.80	1.3	4500	103	P	
135	**Ba**	1	**107.400**	ug/l	107.40	1.3	4500	103	P	
200	**Hg**	1	**0.005**	ug/l	0.00	48.2	45	209	P	
205	**Tl**	1	**103.700**	ug/l	103.70	0.6	4500	209	A	
208	**Pb**	1	**105.500**	ug/l	105.50	1.6	4500	209	A	
238	**U**	1	**105.600**	ug/l	105.60	1.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	91634	0.81	127500	**71.9**	30	-	125	
45	Sc	1	1533802	1.18	1680000	**91.3**	30	-	125	
74	Ge	1	3761561	1.03	3781000	**99.5**	30	-	125	
103	Rh	1	5280296	0.71	5317000	**99.3**	30	-	125	
165	Ho	1	2522514	1.06	2392000	**105.5**	30	-	125	
175	Lu	1	2163027	0.37	2020000	**107.1**	30	-	125	
209	Bi	1	2566590	1.42	2513000	**102.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\052SMPL.D\052SMPL.D#
Date Acquired: Sep 14 2011 12:38 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.120**	ug/l	51.12	1.3	900	6	P	
23	**Na**	1	**5301.000**	ug/l	5,301.00	0.8	450000	6	A	
24	**Mg**	1	**5268.000**	ug/l	5,268.00	1.1	450000	6	A	
27	**Al**	1	**525.300**	ug/l	525.30	1.1	450000	6	P	
31	**P**	1	**5302.000**	ug/l	5,302.00	1.3	450000	6	P	
39	**K**	1	**4815.000**	ug/l	4,815.00	1.6	450000	45	A	
44	**Ca**	1	**4892.000**	ug/l	4,892.00	0.5	450000	45	P	
47	**Ti**	1	**49.460**	ug/l	49.46	1.1	4500	45	P	
51	**V**	1	**50.030**	ug/l	50.03	1.3	4500	45	P	
52	**Cr**	1	**50.270**	ug/l	50.27	1.5	4500	45	P	
55	**Mn**	1	**51.430**	ug/l	51.43	1.7	4500	45	P	
57	**Fe**	1	**4875.000**	ug/l	4,875.00	1.8	450000	74	A	
59	**Co**	1	**47.010**	ug/l	47.01	3.9	4500	74	P	
60	**Ni**	1	**47.040**	ug/l	47.04	3.3	4500	74	P	
63	**Cu**	1	**48.090**	ug/l	48.09	3.2	4500	74	P	
66	**Zn**	1	**49.100**	ug/l	49.10	2.9	4500	74	P	
75	**As**	1	**48.600**	ug/l	48.60	3.7	4500	74	P	
78	**Se**	1	**48.460**	ug/l	48.46	3.7	4500	74	P	
88	**Sr**	1	**49.560**	ug/l	49.56	1.7	4500	74	P	
95	**Mo**	1	**47.610**	ug/l	47.61	0.8	4500	103	P	
109	**Ag**	1	**47.990**	ug/l	47.99	0.8	4500	103	P	
111	**Cd**	1	**48.880**	ug/l	48.88	0.6	4500	103	P	
118	**Sn**	1	**49.920**	ug/l	49.92	0.6	4500	103	P	
123	**Sb**	1	**49.340**	ug/l	49.34	1.3	4500	103	P	
135	**Ba**	1	**49.400**	ug/l	49.40	1.0	4500	103	P	
200	**Hg**	1	**2.388**	ug/l	2.39	1.3	45	209	P	
205	**Tl**	1	**48.830**	ug/l	48.83	3.0	4500	209	A	
208	**Pb**	1	**48.900**	ug/l	48.90	1.1	4500	209	P	
238	**U**	1	**49.180**	ug/l	49.18	1.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	93686	0.88	127500	**73.5**	30	-	125	
45	Sc	1	1539730	1.14	1680000	**91.7**	30	-	125	
74	Ge	1	3837828	2.68	3781000	**101.5**	30	-	125	
103	Rh	1	5463087	0.84	5317000	**102.7**	30	-	125	
165	Ho	1	2596691	2.08	2392000	**108.6**	30	-	125	
175	Lu	1	2214350	0.88	2020000	**109.6**	30	-	125	
209	Bi	1	2617642	0.70	2513000	**104.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\053SMPL.D\053SMPL.D#
Date Acquired: Sep 14 2011 12:42 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.007**	ug/l	0.01	94.7	900	6	P	
23	**Na**	1	**37.220**	ug/l	37.22	3.0	450000	6	P	
24	**Mg**	1	**0.279**	ug/l	0.28	42.6	450000	6	P	
27	**Al**	1	**-0.016**	ug/l	-0.02	41.1	450000	6	P	
31	**P**	1	**-0.713**	ug/l	-0.71	242.5	450000	6	P	
39	**K**	1	**-5.331**	ug/l	-5.33	52.7	450000	45	P	
44	**Ca**	1	**-0.106**	ug/l	-0.11	190.5	450000	45	P	
47	**Ti**	1	**0.017**	ug/l	0.02	105.1	4500	45	P	
51	**V**	1	**-0.050**	ug/l	-0.05	38.8	4500	45	P	
52	**Cr**	1	**0.002**	ug/l	0.00	361.2	4500	45	P	
55	**Mn**	1	**-0.008**	ug/l	-0.01	25.4	4500	45	P	
57	**Fe**	1	**1.729**	ug/l	1.73	14.0	450000	74	P	
59	**Co**	1	**0.001**	ug/l	0.00	18.2	4500	74	P	
60	**Ni**	1	**-0.004**	ug/l	0.00	121.5	4500	74	P	
63	**Cu**	1	**0.107**	ug/l	0.11	17.5	4500	74	P	
66	**Zn**	1	**0.029**	ug/l	0.03	54.4	4500	74	P	
75	**As**	1	**-0.003**	ug/l	0.00	170.4	4500	74	P	
78	**Se**	1	**0.081**	ug/l	0.08	105.7	4500	74	P	
88	**Sr**	1	**0.004**	ug/l	0.00	109.0	4500	74	P	
95	**Mo**	1	**0.168**	ug/l	0.17	13.9	4500	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	120.7	4500	103	P	
111	**Cd**	1	**0.002**	ug/l	0.00	65.5	4500	103	P	
118	**Sn**	1	**0.433**	ug/l	0.43	11.6	4500	103	P	
123	**Sb**	1	**0.102**	ug/l	0.10	19.4	4500	103	P	
135	**Ba**	1	**0.014**	ug/l	0.01	62.0	4500	103	P	
200	**Hg**	1	**0.017**	ug/l	0.02	19.3	45	209	P	
205	**Tl**	1	**0.410**	ug/l	0.41	12.2	4500	209	P	
208	**Pb**	1	**0.006**	ug/l	0.01	76.6	4500	209	P	
238	**U**	1	**0.018**	ug/l	0.02	16.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	98735	0.47	127500	**77.4**	30	-	125	
45	Sc	1	1630618	2.69	1680000	**97.1**	30	-	125	
74	Ge	1	3971007	1.71	3781000	**105.0**	30	-	125	
103	Rh	1	5671968	0.53	5317000	**106.7**	30	-	125	
165	Ho	1	2629155	2.16	2392000	**109.9**	30	-	125	
175	Lu	1	2233893	1.18	2020000	**110.6**	30	-	125	
209	Bi	1	2755704	2.69	2513000	**109.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\054SMPL.D\054SMPL.D#
Date Acquired: Sep 14 2011 12:47 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-6-A Vial Number: 2401
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.046**	ug/l	0.05	38.7	900	6	P	
23	**Na**	1	**90750.000**	ug/l	90,750.00	1.0	450000	6	A	
24	**Mg**	1	**6657.000**	ug/l	6,657.00	0.3	450000	6	A	
27	**Al**	1	**75.480**	ug/l	75.48	2.5	450000	6	P	
31	**P**	1	**479.100**	ug/l	479.10	2.1	450000	6	P	
39	**K**	1	**197600.000**	ug/l	197,600.00	1.3	450000	45	A	
44	**Ca**	1	**30000.000**	ug/l	30,000.00	1.3	450000	45	A	
47	**Ti**	1	**6.478**	ug/l	6.48	3.0	4500	45	P	
51	**V**	1	**7.793**	ug/l	7.79	0.8	4500	45	P	
52	**Cr**	1	**0.739**	ug/l	0.74	2.1	4500	45	P	
55	**Mn**	1	**239.100**	ug/l	239.10	0.8	4500	45	A	
57	**Fe**	1	**390.500**	ug/l	390.50	1.1	450000	74	P	
59	**Co**	1	**1.107**	ug/l	1.11	1.3	4500	74	P	
60	**Ni**	1	**6.664**	ug/l	6.66	1.5	4500	74	P	
63	**Cu**	1	**80.990**	ug/l	80.99	1.0	4500	74	P	
66	**Zn**	1	**3.047**	ug/l	3.05	1.9	4500	74	P	
75	**As**	1	**6.168**	ug/l	6.17	3.3	4500	74	P	
78	**Se**	1	**0.671**	ug/l	0.67	7.4	4500	74	P	
88	**Sr**	1	**176.200**	ug/l	176.20	0.9	4500	74	A	
95	**Mo**	1	**132.900**	ug/l	132.90	2.4	4500	103	P	
109	**Ag**	1	**0.310**	ug/l	0.31	9.0	4500	103	P	
111	**Cd**	1	**0.166**	ug/l	0.17	18.1	4500	103	P	
118	**Sn**	1	**0.471**	ug/l	0.47	5.4	4500	103	P	
123	**Sb**	1	**0.391**	ug/l	0.39	5.5	4500	103	P	
135	**Ba**	1	**114.500**	ug/l	114.50	1.4	4500	103	P	
200	**Hg**	1	**0.135**	ug/l	0.13	10.8	45	209	P	
205	**Tl**	1	**0.279**	ug/l	0.28	6.7	4500	209	P	
208	**Pb**	1	**5.892**	ug/l	5.89	2.2	4500	209	P	
238	**U**	1	**7.022**	ug/l	7.02	2.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	105606	2.35	127500	**82.8**	30 - 125	
45	Sc	1	1695549	1.14	1680000	**100.9**	30 - 125	
74	Ge	1	3876106	1.17	3781000	**102.5**	30 - 125	
103	Rh	1	5016286	1.73	5317000	**94.3**	30 - 125	
165	Ho	1	2382023	1.12	2392000	**99.6**	30 - 125	
175	Lu	1	2037451	3.24	2020000	**100.9**	30 - 125	
209	Bi	1	2259529	1.31	2513000	**89.9**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\055SMPL.D\055SMPL.D#
Date Acquired: Sep 14 2011 12:51 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-6-B MS Vial Number: 2402
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**103.400**	ug/l	103.40	1.5	900	6	P	
23	Na	1	**105000.000**	ug/l	105,000.00	1.2	450000	6	A	
24	Mg	1	**17260.000**	ug/l	17,260.00	0.5	450000	6	A	
27	Al	1	**1140.000**	ug/l	1,140.00	1.7	450000	6	P	
31	P	1	**11670.000**	ug/l	11,670.00	2.5	450000	6	P	
39	K	1	**216000.000**	ug/l	216,000.00	1.9	450000	45	A	
44	Ca	1	**40870.000**	ug/l	40,870.00	0.9	450000	45	A	
47	Ti	1	**105.400**	ug/l	105.40	1.0	4500	45	P	
51	V	1	**109.300**	ug/l	109.30	1.6	4500	45	A	
52	Cr	1	**95.030**	ug/l	95.03	0.8	4500	45	A	
55	Mn	1	**341.300**	ug/l	341.30	0.7	4500	45	A	
57	Fe	1	**10250.000**	ug/l	10,250.00	0.5	450000	74	A	
59	Co	1	**98.430**	ug/l	98.43	1.3	4500	74	A	
60	Ni	1	**102.300**	ug/l	102.30	0.7	4500	74	P	
63	Cu	1	**183.700**	ug/l	183.70	1.1	4500	74	A	
66	Zn	1	**100.700**	ug/l	100.70	0.7	4500	74	P	
75	As	1	**110.600**	ug/l	110.60	1.2	4500	74	P	
78	Se	1	**101.300**	ug/l	101.30	1.2	4500	74	P	
88	Sr	1	**282.500**	ug/l	282.50	0.4	4500	74	A	
95	Mo	1	**245.400**	ug/l	245.40	2.5	4500	103	A	
109	Ag	1	**97.210**	ug/l	97.21	1.6	4500	103	A	
111	Cd	1	**102.000**	ug/l	102.00	0.4	4500	103	P	
118	Sn	1	**103.600**	ug/l	103.60	0.7	4500	103	P	
123	Sb	1	**105.900**	ug/l	105.90	0.6	4500	103	P	
135	Ba	1	**220.000**	ug/l	220.00	0.4	4500	103	P	
200	Hg	1	**0.142**	ug/l	0.14	5.2	45	209	P	
205	Tl	1	**102.100**	ug/l	102.10	1.1	4500	209	A	
208	Pb	1	**109.500**	ug/l	109.50	1.6	4500	209	A	
238	U	1	**112.100**	ug/l	112.10	1.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	108982	1.25	127500	**85.5**	30	-	125	
45	Sc	1	1714244	0.74	1680000	**102.0**	30	-	125	
74	Ge	1	3857010	0.66	3781000	**102.0**	30	-	125	
103	Rh	1	5031308	0.33	5317000	**94.6**	30	-	125	
165	Ho	1	2414852	1.08	2392000	**101.0**	30	-	125	
175	Lu	1	2039001	1.61	2020000	**100.9**	30	-	125	
209	Bi	1	2275124	1.48	2513000	**90.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\056SMPL.D\056SMPL.D#
Date Acquired: Sep 14 2011 12:55 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-6-C MSD Vial Number: 2403
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**105.000**	ug/l	105.00	0.5	900	6	P	
23	Na	1	**104100.000**	ug/l	104,100.00	0.6	450000	6	A	
24	Mg	1	**17390.000**	ug/l	17,390.00	1.8	450000	6	A	
27	Al	1	**1136.000**	ug/l	1,136.00	1.1	450000	6	P	
31	P	1	**11490.000**	ug/l	11,490.00	1.5	450000	6	P	
39	K	1	**212700.000**	ug/l	212,700.00	1.0	450000	45	A	
44	Ca	1	**40710.000**	ug/l	40,710.00	1.5	450000	45	A	
47	Ti	1	**105.500**	ug/l	105.50	1.1	4500	45	P	
51	V	1	**108.100**	ug/l	108.10	2.3	4500	45	A	
52	Cr	1	**97.570**	ug/l	97.57	1.3	4500	45	A	
55	Mn	1	**340.400**	ug/l	340.40	3.2	4500	45	A	
57	Fe	1	**10180.000**	ug/l	10,180.00	0.6	450000	74	A	
59	Co	1	**100.600**	ug/l	100.60	1.1	4500	74	A	
60	Ni	1	**103.800**	ug/l	103.80	0.7	4500	74	P	
63	Cu	1	**183.300**	ug/l	183.30	0.3	4500	74	A	
66	Zn	1	**101.600**	ug/l	101.60	1.1	4500	74	P	
75	As	1	**112.300**	ug/l	112.30	0.9	4500	74	P	
78	Se	1	**102.300**	ug/l	102.30	0.2	4500	74	P	
88	Sr	1	**282.800**	ug/l	282.80	1.5	4500	74	A	
95	Mo	1	**245.800**	ug/l	245.80	0.4	4500	103	P	
109	Ag	1	**100.500**	ug/l	100.50	0.8	4500	103	A	
111	Cd	1	**104.100**	ug/l	104.10	0.3	4500	103	P	
118	Sn	1	**106.200**	ug/l	106.20	1.0	4500	103	P	
123	Sb	1	**108.400**	ug/l	108.40	0.5	4500	103	P	
135	Ba	1	**220.800**	ug/l	220.80	0.7	4500	103	P	
200	Hg	1	**0.144**	ug/l	0.14	3.2	45	209	P	
205	Tl	1	**103.400**	ug/l	103.40	1.5	4500	209	A	
208	Pb	1	**111.200**	ug/l	111.20	1.5	4500	209	A	
238	U	1	**114.200**	ug/l	114.20	2.8	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	106033	0.57	127500	**83.2**	30	-	125	
45	Sc	1	1672772	1.57	1680000	**99.6**	30	-	125	
74	Ge	1	3733950	1.03	3781000	**98.8**	30	-	125	
103	Rh	1	4869128	0.18	5317000	**91.6**	30	-	125	
165	Ho	1	2353134	1.32	2392000	**98.4**	30	-	125	
175	Lu	1	2030070	0.96	2020000	**100.5**	30	-	125	
209	Bi	1	2231840	1.96	2513000	**88.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\057SMPL.D\057SMPL.D#
Date Acquired: Sep 14 2011 12:59 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-3-A Vial Number: 2404
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.066**	ug/l	0.07	31.9	900	6	P	
23	Na	1	**92900.000**	ug/l	92,900.00	1.0	450000	6	A	
24	Mg	1	**6630.000**	ug/l	6,630.00	2.2	450000	6	A	
27	Al	1	**71.490**	ug/l	71.49	2.9	450000	6	P	
31	P	1	**347.400**	ug/l	347.40	2.0	450000	6	P	
39	K	1	**207200.000**	ug/l	207,200.00	2.1	450000	45	A	
44	Ca	1	**31170.000**	ug/l	31,170.00	2.1	450000	45	A	
47	Ti	1	**6.589**	ug/l	6.59	5.7	4500	45	P	
51	V	1	**8.345**	ug/l	8.35	2.7	4500	45	P	
52	Cr	1	**0.793**	ug/l	0.79	2.9	4500	45	P	
55	Mn	1	**245.700**	ug/l	245.70	2.6	4500	45	A	
57	Fe	1	**425.100**	ug/l	425.10	2.3	450000	74	P	
59	Co	1	**1.190**	ug/l	1.19	2.6	4500	74	P	
60	Ni	1	**7.113**	ug/l	7.11	3.5	4500	74	P	
63	Cu	1	**84.880**	ug/l	84.88	2.9	4500	74	P	
66	Zn	1	**3.204**	ug/l	3.20	2.7	4500	74	P	
75	As	1	**6.563**	ug/l	6.56	1.6	4500	74	P	
78	Se	1	**0.583**	ug/l	0.58	4.1	4500	74	P	
88	Sr	1	**183.400**	ug/l	183.40	2.2	4500	74	A	
95	Mo	1	**139.500**	ug/l	139.50	0.8	4500	103	P	
109	Ag	1	**0.292**	ug/l	0.29	5.8	4500	103	P	
111	Cd	1	**0.155**	ug/l	0.15	46.2	4500	103	P	
118	Sn	1	**0.746**	ug/l	0.75	11.6	4500	103	P	
123	Sb	1	**0.480**	ug/l	0.48	12.0	4500	103	P	
135	Ba	1	**118.500**	ug/l	118.50	1.3	4500	103	P	
200	Hg	1	**0.124**	ug/l	0.12	5.0	45	209	P	
205	Tl	1	**0.352**	ug/l	0.35	6.3	4500	209	P	
208	Pb	1	**6.376**	ug/l	6.38	1.9	4500	209	P	
238	U	1	**7.402**	ug/l	7.40	2.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	109088	3.39	127500	**85.6**	30	-	125	
45	Sc	1	1668858	4.39	1680000	**99.3**	30	-	125	
74	Ge	1	3775531	2.38	3781000	**99.9**	30	-	125	
103	Rh	1	4913280	0.95	5317000	**92.4**	30	-	125	
165	Ho	1	2399519	1.82	2392000	**100.3**	30	-	125	
175	Lu	1	2017907	2.19	2020000	**99.9**	30	-	125	
209	Bi	1	2263133	1.13	2513000	**90.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\058SMPL.D\058SMPL.D#
Date Acquired: Sep 14 2011 01:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-4-A Vial Number: 2405
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.040**	ug/l	0.04	23.7	900	6	P	
23	**Na**	1	**89380.000**	ug/l	89,380.00	0.8	450000	6	A	
24	**Mg**	1	**7979.000**	ug/l	7,979.00	0.4	450000	6	A	
27	**Al**	1	**43.670**	ug/l	43.67	0.4	450000	6	P	
31	**P**	1	**379.800**	ug/l	379.80	0.8	450000	6	P	
39	**K**	1	**201700.000**	ug/l	201,700.00	2.0	450000	45	A	
44	**Ca**	1	**34080.000**	ug/l	34,080.00	1.8	450000	45	A	
47	**Ti**	1	**3.856**	ug/l	3.86	1.0	4500	45	P	
51	**V**	1	**6.870**	ug/l	6.87	3.6	4500	45	P	
52	**Cr**	1	**0.595**	ug/l	0.60	2.6	4500	45	P	
55	**Mn**	1	**386.200**	ug/l	386.20	0.7	4500	45	A	
57	**Fe**	1	**399.800**	ug/l	399.80	0.7	450000	74	P	
59	**Co**	1	**1.137**	ug/l	1.14	3.4	4500	74	P	
60	**Ni**	1	**6.511**	ug/l	6.51	1.5	4500	74	P	
63	**Cu**	1	**5.389**	ug/l	5.39	0.7	4500	74	P	
66	**Zn**	1	**2.148**	ug/l	2.15	3.4	4500	74	P	
75	**As**	1	**6.163**	ug/l	6.16	2.2	4500	74	P	
78	**Se**	1	**0.460**	ug/l	0.46	3.9	4500	74	P	
88	**Sr**	1	**212.400**	ug/l	212.40	0.1	4500	74	A	
95	**Mo**	1	**143.000**	ug/l	143.00	0.1	4500	103	P	
109	**Ag**	1	**0.022**	ug/l	0.02	20.3	4500	103	P	
111	**Cd**	1	**0.093**	ug/l	0.09	21.1	4500	103	P	
118	**Sn**	1	**0.497**	ug/l	0.50	10.4	4500	103	P	
123	**Sb**	1	**0.206**	ug/l	0.21	8.9	4500	103	P	
135	**Ba**	1	**134.700**	ug/l	134.70	1.0	4500	103	P	
200	**Hg**	1	**0.084**	ug/l	0.08	12.7	45	209	P	
205	**Tl**	1	**0.113**	ug/l	0.11	13.4	4500	209	P	
208	**Pb**	1	**0.458**	ug/l	0.46	3.6	4500	209	P	
238	**U**	1	**7.188**	ug/l	7.19	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	113779	0.46	127500	**89.2**	30	-	125	
45	Sc	1	1706684	1.82	1680000	**101.6**	30	-	125	
74	Ge	1	3845683	0.53	3781000	**101.7**	30	-	125	
103	Rh	1	5043371	0.43	5317000	**94.9**	30	-	125	
165	Ho	1	2426056	0.34	2392000	**101.4**	30	-	125	
175	Lu	1	2101799	1.95	2020000	**104.0**	30	-	125	
209	Bi	1	2327617	1.33	2513000	**92.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\059SMPL.D\059SMPL.D#
Date Acquired: Sep 14 2011 01:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-4-A Vial Number: 2406
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.062**	ug/l	0.06	15.8	900	6	P	
23	Na	1	**85980.000**	ug/l	85,980.00	1.9	450000	6	A	
24	Mg	1	**7495.000**	ug/l	7,495.00	1.8	450000	6	A	
27	Al	1	**101.900**	ug/l	101.90	0.6	450000	6	P	
31	P	1	**497.700**	ug/l	497.70	0.4	450000	6	P	
39	K	1	**195700.000**	ug/l	195,700.00	1.4	450000	45	A	
44	Ca	1	**32390.000**	ug/l	32,390.00	0.3	450000	45	A	
47	Ti	1	**8.565**	ug/l	8.57	2.6	4500	45	P	
51	V	1	**8.528**	ug/l	8.53	2.2	4500	45	P	
52	Cr	1	**0.898**	ug/l	0.90	4.2	4500	45	P	
55	Mn	1	**391.500**	ug/l	391.50	2.1	4500	45	A	
57	Fe	1	**641.300**	ug/l	641.30	2.3	450000	74	P	
59	Co	1	**1.447**	ug/l	1.45	0.9	4500	74	P	
60	Ni	1	**7.023**	ug/l	7.02	1.9	4500	74	P	
63	Cu	1	**87.280**	ug/l	87.28	1.5	4500	74	P	
66	Zn	1	**3.226**	ug/l	3.23	3.3	4500	74	P	
75	As	1	**6.871**	ug/l	6.87	3.3	4500	74	P	
78	Se	1	**0.527**	ug/l	0.53	20.5	4500	74	P	
88	Sr	1	**200.800**	ug/l	200.80	1.2	4500	74	A	
95	Mo	1	**143.900**	ug/l	143.90	1.3	4500	103	P	
109	Ag	1	**0.371**	ug/l	0.37	4.1	4500	103	P	
111	Cd	1	**0.158**	ug/l	0.16	10.3	4500	103	P	
118	Sn	1	**0.393**	ug/l	0.39	1.1	4500	103	P	
123	Sb	1	**0.430**	ug/l	0.43	2.5	4500	103	P	
135	Ba	1	**131.300**	ug/l	131.30	1.1	4500	103	P	
200	Hg	1	**0.134**	ug/l	0.13	11.1	45	209	P	
205	Tl	1	**0.189**	ug/l	0.19	2.3	4500	209	P	
208	Pb	1	**6.078**	ug/l	6.08	3.1	4500	209	P	
238	U	1	**7.084**	ug/l	7.08	3.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	111659	1.45	127500	**87.6**	30	-	125	
45	Sc	1	1697912	3.05	1680000	**101.1**	30	-	125	
74	Ge	1	3811734	1.89	3781000	**100.8**	30	-	125	
103	Rh	1	4979932	0.98	5317000	**93.7**	30	-	125	
165	Ho	1	2415309	2.25	2392000	**101.0**	30	-	125	
175	Lu	1	2050792	1.38	2020000	**101.5**	30	-	125	
209	Bi	1	2335689	1.72	2513000	**92.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\060SMPL.D\060SMPL.D#
Date Acquired: Sep 14 2011 01:12 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-5-A Vial Number: 2407
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.028**	ug/l	0.03	25.4	900	6	P	
23	**Na**	1	**50860.000**	ug/l	50,860.00	2.3	450000	6	A	
24	**Mg**	1	**15680.000**	ug/l	15,680.00	2.8	450000	6	A	
27	**Al**	1	**17.070**	ug/l	17.07	2.8	450000	6	P	
31	**P**	1	**366.400**	ug/l	366.40	1.7	450000	6	P	
39	**K**	1	**109600.000**	ug/l	109,600.00	1.7	450000	45	A	
44	**Ca**	1	**46580.000**	ug/l	46,580.00	1.0	450000	45	A	
47	**Ti**	1	**1.362**	ug/l	1.36	4.7	4500	45	P	
51	**V**	1	**2.505**	ug/l	2.51	3.5	4500	45	P	
52	**Cr**	1	**0.265**	ug/l	0.27	7.0	4500	45	P	
55	**Mn**	1	**1051.000**	ug/l	1,051.00	1.3	4500	45	A	
57	**Fe**	1	**1694.000**	ug/l	1,694.00	0.8	450000	74	P	
59	**Co**	1	**1.382**	ug/l	1.38	1.1	4500	74	P	
60	**Ni**	1	**2.696**	ug/l	2.70	2.8	4500	74	P	
63	**Cu**	1	**1.076**	ug/l	1.08	3.6	4500	74	P	
66	**Zn**	1	**1.238**	ug/l	1.24	2.6	4500	74	P	
75	**As**	1	**6.827**	ug/l	6.83	1.7	4500	74	P	
78	**Se**	1	**0.200**	ug/l	0.20	12.0	4500	74	P	
88	**Sr**	1	**271.200**	ug/l	271.20	0.9	4500	74	A	
95	**Mo**	1	**42.140**	ug/l	42.14	1.6	4500	103	P	
109	**Ag**	1	**0.004**	ug/l	0.00	23.6	4500	103	P	
111	**Cd**	1	**0.033**	ug/l	0.03	66.0	4500	103	P	
118	**Sn**	1	**0.291**	ug/l	0.29	9.1	4500	103	P	
123	**Sb**	1	**0.101**	ug/l	0.10	10.8	4500	103	P	
135	**Ba**	1	**109.200**	ug/l	109.20	1.1	4500	103	P	
200	**Hg**	1	**0.026**	ug/l	0.03	11.3	45	209	P	
205	**Tl**	1	**0.061**	ug/l	0.06	20.3	4500	209	P	
208	**Pb**	1	**0.151**	ug/l	0.15	5.5	4500	209	P	
238	**U**	1	**2.133**	ug/l	2.13	0.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	113881	1.79	127500	**89.3**	30	-	125	
45	Sc	1	1706120	2.89	1680000	**101.6**	30	-	125	
74	Ge	1	3884928	0.39	3781000	**102.7**	30	-	125	
103	Rh	1	5042838	0.86	5317000	**94.8**	30	-	125	
165	Ho	1	2504300	1.21	2392000	**104.7**	30	-	125	
175	Lu	1	2126013	0.99	2020000	**105.2**	30	-	125	
209	Bi	1	2413488	1.28	2513000	**96.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\061SMPL.D\061SMPL.D#
Date Acquired: Sep 14 2011 01:16 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-5-A Vial Number: 2408
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.024**	ug/l	0.02	78.3	900	6	P	
23	Na	1	**52020.000**	ug/l	52,020.00	1.1	450000	6	A	
24	Mg	1	**15860.000**	ug/l	15,860.00	3.2	450000	6	A	
27	Al	1	**58.900**	ug/l	58.90	1.9	450000	6	P	
31	P	1	**203.700**	ug/l	203.70	2.4	450000	6	P	
39	K	1	**112400.000**	ug/l	112,400.00	0.6	450000	45	A	
44	Ca	1	**47540.000**	ug/l	47,540.00	0.7	450000	45	A	
47	Ti	1	**3.676**	ug/l	3.68	2.5	4500	45	P	
51	V	1	**3.187**	ug/l	3.19	3.6	4500	45	P	
52	Cr	1	**0.393**	ug/l	0.39	2.7	4500	45	P	
55	Mn	1	**1077.000**	ug/l	1,077.00	1.5	4500	45	A	
57	Fe	1	**1823.000**	ug/l	1,823.00	1.2	450000	74	P	
59	Co	1	**1.460**	ug/l	1.46	1.3	4500	74	P	
60	Ni	1	**2.920**	ug/l	2.92	3.3	4500	74	P	
63	Cu	1	**14.280**	ug/l	14.28	1.4	4500	74	P	
66	Zn	1	**2.797**	ug/l	2.80	0.5	4500	74	P	
75	As	1	**7.176**	ug/l	7.18	1.6	4500	74	P	
78	Se	1	**0.291**	ug/l	0.29	13.4	4500	74	P	
88	Sr	1	**275.600**	ug/l	275.60	1.6	4500	74	A	
95	Mo	1	**42.910**	ug/l	42.91	1.0	4500	103	P	
109	Ag	1	**0.057**	ug/l	0.06	8.5	4500	103	P	
111	Cd	1	**0.045**	ug/l	0.04	32.8	4500	103	P	
118	Sn	1	**0.291**	ug/l	0.29	4.0	4500	103	P	
123	Sb	1	**0.152**	ug/l	0.15	6.5	4500	103	P	
135	Ba	1	**112.100**	ug/l	112.10	2.2	4500	103	P	
200	Hg	1	**0.028**	ug/l	0.03	15.2	45	209	P	
205	Tl	1	**0.072**	ug/l	0.07	8.8	4500	209	P	
208	Pb	1	**1.498**	ug/l	1.50	2.7	4500	209	P	
238	U	1	**2.194**	ug/l	2.19	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	108383	1.79	127500	**85.0**	30	-	125	
45	Sc	1	1642818	2.07	1680000	**97.8**	30	-	125	
74	Ge	1	3776498	1.25	3781000	**99.9**	30	-	125	
103	Rh	1	4931936	0.89	5317000	**92.8**	30	-	125	
165	Ho	1	2455596	1.75	2392000	**102.7**	30	-	125	
175	Lu	1	2084433	0.85	2020000	**103.2**	30	-	125	
209	Bi	1	2357129	1.14	2513000	**93.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\062SMPL.D\062SMPL.D#
Date Acquired: Sep 14 2011 01:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-6-A Vial Number: 2409
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.041**	ug/l	0.04	21.5	900	6	P	
23	**Na**	1	**90420.000**	ug/l	90,420.00	1.1	450000	6	A	
24	**Mg**	1	**6363.000**	ug/l	6,363.00	0.5	450000	6	A	
27	**Al**	1	**42.480**	ug/l	42.48	3.5	450000	6	P	
31	**P**	1	**360.500**	ug/l	360.50	4.1	450000	6	P	
39	**K**	1	**206500.000**	ug/l	206,500.00	2.4	450000	45	A	
44	**Ca**	1	**30280.000**	ug/l	30,280.00	1.8	450000	45	A	
47	**Ti**	1	**4.922**	ug/l	4.92	3.4	4500	45	P	
51	**V**	1	**7.763**	ug/l	7.76	2.6	4500	45	P	
52	**Cr**	1	**0.690**	ug/l	0.69	3.5	4500	45	P	
55	**Mn**	1	**239.200**	ug/l	239.20	2.7	4500	45	A	
57	**Fe**	1	**274.700**	ug/l	274.70	1.4	450000	74	P	
59	**Co**	1	**0.994**	ug/l	0.99	2.4	4500	74	P	
60	**Ni**	1	**6.661**	ug/l	6.66	1.2	4500	74	P	
63	**Cu**	1	**34.010**	ug/l	34.01	2.0	4500	74	P	
66	**Zn**	1	**2.129**	ug/l	2.13	4.0	4500	74	P	
75	**As**	1	**5.868**	ug/l	5.87	3.0	4500	74	P	
78	**Se**	1	**0.516**	ug/l	0.52	10.0	4500	74	P	
88	**Sr**	1	**181.800**	ug/l	181.80	0.8	4500	74	A	
95	**Mo**	1	**140.500**	ug/l	140.50	1.0	4500	103	P	
109	**Ag**	1	**0.140**	ug/l	0.14	6.0	4500	103	P	
111	**Cd**	1	**0.110**	ug/l	0.11	22.8	4500	103	P	
118	**Sn**	1	**0.267**	ug/l	0.27	3.7	4500	103	P	
123	**Sb**	1	**0.284**	ug/l	0.28	2.9	4500	103	P	
135	**Ba**	1	**116.800**	ug/l	116.80	2.3	4500	103	P	
200	**Hg**	1	**0.107**	ug/l	0.11	5.7	45	209	P	
205	**Tl**	1	**0.089**	ug/l	0.09	13.5	4500	209	P	
208	**Pb**	1	**2.507**	ug/l	2.51	2.6	4500	209	P	
238	**U**	1	**7.356**	ug/l	7.36	1.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	109885	0.58	127500	**86.2**	30	-	125	
45	Sc	1	1639546	2.13	1680000	**97.6**	30	-	125	
74	Ge	1	3722478	1.03	3781000	**98.5**	30	-	125	
103	Rh	1	4860861	1.76	5317000	**91.4**	30	-	125	
165	Ho	1	2377052	0.96	2392000	**99.4**	30	-	125	
175	Lu	1	2025042	0.52	2020000	**100.2**	30	-	125	
209	Bi	1	2296937	0.82	2513000	**91.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\063SMPL.D\063SMPL.D#
Date Acquired: Sep 14 2011 01:25 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-2-A Vial Number: 2410
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.049**	ug/l	0.05	16.4	900	6	P	
23	**Na**	1	**134300.000**	ug/l	134,300.00	2.5	450000	6	A	
24	**Mg**	1	**12300.000**	ug/l	12,300.00	2.2	450000	6	A	
27	**Al**	1	**24.570**	ug/l	24.57	1.7	450000	6	P	
31	**P**	1	**270.200**	ug/l	270.20	2.3	450000	6	P	
39	**K**	1	**350500.000**	ug/l	350,500.00	2.0	450000	45	A	
44	**Ca**	1	**63700.000**	ug/l	63,700.00	0.8	450000	45	A	
47	**Ti**	1	**3.510**	ug/l	3.51	4.0	4500	45	P	
51	**V**	1	**6.572**	ug/l	6.57	1.6	4500	45	P	
52	**Cr**	1	**0.656**	ug/l	0.66	3.5	4500	45	P	
55	**Mn**	1	**3811.000**	ug/l	3,811.00	1.0	4500	45	A	
57	**Fe**	1	**12370.000**	ug/l	12,370.00	0.7	450000	74	A	
59	**Co**	1	**0.883**	ug/l	0.88	1.4	4500	74	P	
60	**Ni**	1	**2.461**	ug/l	2.46	1.9	4500	74	P	
63	**Cu**	1	**1.320**	ug/l	1.32	1.2	4500	74	P	
66	**Zn**	1	**1.327**	ug/l	1.33	7.5	4500	74	P	
75	**As**	1	**11.200**	ug/l	11.20	1.0	4500	74	P	
78	**Se**	1	**0.329**	ug/l	0.33	17.1	4500	74	P	
88	**Sr**	1	**607.900**	ug/l	607.90	0.8	4500	74	A	
95	**Mo**	1	**47.020**	ug/l	47.02	1.4	4500	103	P	
109	**Ag**	1	**0.006**	ug/l	0.01	18.9	4500	103	P	
111	**Cd**	1	**0.029**	ug/l	0.03	85.4	4500	103	P	
118	**Sn**	1	**0.233**	ug/l	0.23	6.2	4500	103	P	
123	**Sb**	1	**0.112**	ug/l	0.11	8.5	4500	103	P	
135	**Ba**	1	**327.000**	ug/l	327.00	1.6	4500	103	P	
200	**Hg**	1	**0.027**	ug/l	0.03	10.5	45	209	P	
205	**Tl**	1	**0.026**	ug/l	0.03	25.9	4500	209	P	
208	**Pb**	1	**0.153**	ug/l	0.15	3.9	4500	209	P	
238	**U**	1	**1.861**	ug/l	1.86	3.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	113550	1.48	127500	**89.1**	30	-	125	
45	Sc	1	1674994	1.10	1680000	**99.7**	30	-	125	
74	Ge	1	3684182	0.41	3781000	**97.4**	30	-	125	
103	Rh	1	4696338	0.42	5317000	**88.3**	30	-	125	
165	Ho	1	2318301	0.55	2392000	**96.9**	30	-	125	
175	Lu	1	1991314	0.61	2020000	**98.6**	30	-	125	
209	Bi	1	2210855	2.49	2513000	**88.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\064SMPL.D\064SMPL.D#
Date Acquired: Sep 14 2011 01:29 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.060**	ug/l	48.06	0.9	900	6	P	
23	**Na**	1	**4979.000**	ug/l	4,979.00	2.0	450000	6	A	
24	**Mg**	1	**4974.000**	ug/l	4,974.00	0.4	450000	6	A	
27	**Al**	1	**484.600**	ug/l	484.60	0.7	450000	6	P	
31	**P**	1	**4811.000**	ug/l	4,811.00	0.9	450000	6	P	
39	**K**	1	**4835.000**	ug/l	4,835.00	1.4	450000	45	A	
44	**Ca**	1	**4817.000**	ug/l	4,817.00	0.4	450000	45	P	
47	**Ti**	1	**47.610**	ug/l	47.61	0.9	4500	45	P	
51	**V**	1	**47.730**	ug/l	47.73	0.9	4500	45	P	
52	**Cr**	1	**47.970**	ug/l	47.97	0.7	4500	45	P	
55	**Mn**	1	**49.740**	ug/l	49.74	1.0	4500	45	P	
57	**Fe**	1	**4819.000**	ug/l	4,819.00	1.1	450000	74	A	
59	**Co**	1	**46.980**	ug/l	46.98	0.6	4500	74	P	
60	**Ni**	1	**47.360**	ug/l	47.36	0.9	4500	74	P	
63	**Cu**	1	**48.070**	ug/l	48.07	1.1	4500	74	P	
66	**Zn**	1	**48.960**	ug/l	48.96	1.4	4500	74	P	
75	**As**	1	**47.910**	ug/l	47.91	1.8	4500	74	P	
78	**Se**	1	**48.070**	ug/l	48.07	0.6	4500	74	P	
88	**Sr**	1	**48.780**	ug/l	48.78	1.0	4500	74	P	
95	**Mo**	1	**47.860**	ug/l	47.86	1.6	4500	103	P	
109	**Ag**	1	**47.940**	ug/l	47.94	0.6	4500	103	P	
111	**Cd**	1	**48.990**	ug/l	48.99	1.0	4500	103	P	
118	**Sn**	1	**48.680**	ug/l	48.68	1.3	4500	103	P	
123	**Sb**	1	**49.070**	ug/l	49.07	0.5	4500	103	P	
135	**Ba**	1	**48.990**	ug/l	48.99	1.8	4500	103	P	
200	**Hg**	1	**2.337**	ug/l	2.34	1.6	45	209	P	
205	**Tl**	1	**47.660**	ug/l	47.66	2.4	4500	209	A	
208	**Pb**	1	**47.630**	ug/l	47.63	1.5	4500	209	P	
238	**U**	1	**48.210**	ug/l	48.21	0.3	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	116975	1.17	127500	**91.7**	30	-	125	
45	Sc	1	1716083	0.26	1680000	**102.1**	30	-	125	
74	Ge	1	3995016	0.84	3781000	**105.7**	30	-	125	
103	Rh	1	5517808	1.06	5317000	**103.8**	30	-	125	
165	Ho	1	2570707	1.19	2392000	**107.5**	30	-	125	
175	Lu	1	2180865	0.57	2020000	**108.0**	30	-	125	
209	Bi	1	2670717	0.73	2513000	**106.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\065SMPL.D\065SMPL.D#
Date Acquired: Sep 14 2011 01:34 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.009**	ug/l	0.01	90.5	900	6	P	
23	Na	1	**15.710**	ug/l	15.71	27.0	450000	6	P	
24	Mg	1	**1.441**	ug/l	1.44	46.6	450000	6	P	
27	Al	1	**0.041**	ug/l	0.04	214.5	450000	6	P	
31	P	1	**0.861**	ug/l	0.86	235.0	450000	6	P	
39	K	1	**10.930**	ug/l	10.93	42.6	450000	45	P	
44	Ca	1	**2.708**	ug/l	2.71	26.3	450000	45	P	
47	Ti	1	**0.009**	ug/l	0.01	148.3	4500	45	P	
51	V	1	**-0.053**	ug/l	-0.05	36.3	4500	45	P	
52	Cr	1	**0.009**	ug/l	0.01	66.8	4500	45	P	
55	Mn	1	**0.118**	ug/l	0.12	51.0	4500	45	P	
57	Fe	1	**2.623**	ug/l	2.62	20.7	450000	74	P	
59	Co	1	**0.010**	ug/l	0.01	43.5	4500	74	P	
60	Ni	1	**-0.001**	ug/l	0.00	193.5	4500	74	P	
63	Cu	1	**0.189**	ug/l	0.19	16.0	4500	74	P	
66	Zn	1	**0.020**	ug/l	0.02	80.7	4500	74	P	
75	As	1	**0.015**	ug/l	0.01	73.3	4500	74	P	
78	Se	1	**0.059**	ug/l	0.06	51.9	4500	74	P	
88	Sr	1	**0.022**	ug/l	0.02	43.6	4500	74	P	
95	Mo	1	**0.171**	ug/l	0.17	18.1	4500	103	P	
109	Ag	1	**0.006**	ug/l	0.01	36.8	4500	103	P	
111	Cd	1	**0.008**	ug/l	0.01	132.2	4500	103	P	
118	Sn	1	**0.198**	ug/l	0.20	24.9	4500	103	P	
123	Sb	1	**0.047**	ug/l	0.05	32.2	4500	103	P	
135	Ba	1	**0.020**	ug/l	0.02	44.5	4500	103	P	
200	Hg	1	**0.009**	ug/l	0.01	2.6	45	209	P	
205	Tl	1	**0.229**	ug/l	0.23	11.6	4500	209	P	
208	Pb	1	**0.018**	ug/l	0.02	37.1	4500	209	P	
238	U	1	**0.019**	ug/l	0.02	32.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	118476	2.17	127500	**92.9**	30	-	125	
45	Sc	1	1698839	1.32	1680000	**101.1**	30	-	125	
74	Ge	1	3969480	0.87	3781000	**105.0**	30	-	125	
103	Rh	1	5586416	0.83	5317000	**105.1**	30	-	125	
165	Ho	1	2597885	0.27	2392000	**108.6**	30	-	125	
175	Lu	1	2195932	1.17	2020000	**108.7**	30	-	125	
209	Bi	1	2707134	1.10	2513000	**107.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\066SMPL.D\066SMPL.D#
Date Acquired: Sep 14 2011 01:38 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-3-A Vial Number: 2501
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.035**	ug/l	0.03	7.3	900	6	P	
23	Na	1	**93540.000**	ug/l	93,540.00	1.6	450000	6	A	
24	Mg	1	**6673.000**	ug/l	6,673.00	1.7	450000	6	A	
27	Al	1	**51.970**	ug/l	51.97	1.0	450000	6	P	
31	P	1	**430.100**	ug/l	430.10	5.0	450000	6	P	
39	K	1	**208900.000**	ug/l	208,900.00	3.4	450000	45	A	
44	Ca	1	**31070.000**	ug/l	31,070.00	2.1	450000	45	A	
47	Ti	1	**6.021**	ug/l	6.02	7.8	4500	45	P	
51	V	1	**7.992**	ug/l	7.99	4.9	4500	45	P	
52	Cr	1	**0.808**	ug/l	0.81	1.7	4500	45	P	
55	Mn	1	**234.200**	ug/l	234.20	3.1	4500	45	A	
57	Fe	1	**348.300**	ug/l	348.30	1.5	450000	74	P	
59	Co	1	**1.055**	ug/l	1.06	2.5	4500	74	P	
60	Ni	1	**6.817**	ug/l	6.82	1.1	4500	74	P	
63	Cu	1	**55.260**	ug/l	55.26	1.6	4500	74	P	
66	Zn	1	**1.902**	ug/l	1.90	7.3	4500	74	P	
75	As	1	**6.221**	ug/l	6.22	2.1	4500	74	P	
78	Se	1	**0.543**	ug/l	0.54	14.7	4500	74	P	
88	Sr	1	**187.600**	ug/l	187.60	0.4	4500	74	A	
95	Mo	1	**146.700**	ug/l	146.70	1.0	4500	103	P	
109	Ag	1	**0.254**	ug/l	0.25	1.6	4500	103	P	
111	Cd	1	**0.127**	ug/l	0.13	34.1	4500	103	P	
118	Sn	1	**0.310**	ug/l	0.31	12.7	4500	103	P	
123	Sb	1	**0.344**	ug/l	0.34	7.5	4500	103	P	
135	Ba	1	**120.600**	ug/l	120.60	1.3	4500	103	P	
200	Hg	1	**0.133**	ug/l	0.13	1.5	45	209	P	
205	Tl	1	**0.155**	ug/l	0.15	5.4	4500	209	P	
208	Pb	1	**3.701**	ug/l	3.70	2.1	4500	209	P	
238	U	1	**7.647**	ug/l	7.65	1.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	113622	1.97	127500	**89.1**	30	-	125	
45	Sc	1	1746133	3.78	1680000	**103.9**	30	-	125	
74	Ge	1	3890175	0.87	3781000	**102.9**	30	-	125	
103	Rh	1	5049746	0.63	5317000	**95.0**	30	-	125	
165	Ho	1	2478006	0.91	2392000	**103.6**	30	-	125	
175	Lu	1	2111613	0.67	2020000	**104.5**	30	-	125	
209	Bi	1	2383865	1.35	2513000	**94.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\067SMPL.D\067SMPL.D#
Date Acquired: Sep 14 2011 01:42 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-2-A Vial Number: 2502
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.067**	ug/l	0.07	25.6	900	6	P	
23	**Na**	1	**129400.000**	ug/l	129,400.00	1.7	450000	6	A	
24	**Mg**	1	**11180.000**	ug/l	11,180.00	0.6	450000	6	A	
27	**Al**	1	**41.350**	ug/l	41.35	0.8	450000	6	P	
31	**P**	1	**286.000**	ug/l	286.00	2.0	450000	6	P	
39	**K**	1	**341300.000**	ug/l	341,300.00	2.9	450000	45	A	
44	**Ca**	1	**58970.000**	ug/l	58,970.00	3.5	450000	45	A	
47	**Ti**	1	**6.334**	ug/l	6.33	4.1	4500	45	P	
51	**V**	1	**8.940**	ug/l	8.94	3.3	4500	45	P	
52	**Cr**	1	**0.778**	ug/l	0.78	5.4	4500	45	P	
55	**Mn**	1	**3240.000**	ug/l	3,240.00	2.7	4500	45	A	
57	**Fe**	1	**10290.000**	ug/l	10,290.00	0.9	450000	74	A	
59	**Co**	1	**1.023**	ug/l	1.02	1.5	4500	74	P	
60	**Ni**	1	**2.997**	ug/l	3.00	5.3	4500	74	P	
63	**Cu**	1	**54.070**	ug/l	54.07	1.7	4500	74	P	
66	**Zn**	1	**1.856**	ug/l	1.86	0.3	4500	74	P	
75	**As**	1	**12.220**	ug/l	12.22	3.5	4500	74	P	
78	**Se**	1	**0.373**	ug/l	0.37	7.3	4500	74	P	
88	**Sr**	1	**540.900**	ug/l	540.90	0.6	4500	74	A	
95	**Mo**	1	**58.960**	ug/l	58.96	0.7	4500	103	P	
109	**Ag**	1	**0.191**	ug/l	0.19	3.4	4500	103	P	
111	**Cd**	1	**0.048**	ug/l	0.05	24.5	4500	103	P	
118	**Sn**	1	**0.276**	ug/l	0.28	3.2	4500	103	P	
123	**Sb**	1	**0.233**	ug/l	0.23	5.6	4500	103	P	
135	**Ba**	1	**297.700**	ug/l	297.70	1.6	4500	103	P	
200	**Hg**	1	**0.053**	ug/l	0.05	13.0	45	209	P	
205	**Tl**	1	**0.060**	ug/l	0.06	17.6	4500	209	P	
208	**Pb**	1	**1.195**	ug/l	1.20	2.7	4500	209	P	
238	**U**	1	**2.005**	ug/l	2.01	1.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	111733	0.84	127500	**87.6**	30	-	125	
45	Sc	1	1655571	3.73	1680000	**98.5**	30	-	125	
74	Ge	1	3657745	1.12	3781000	**96.7**	30	-	125	
103	Rh	1	4805355	1.11	5317000	**90.4**	30	-	125	
165	Ho	1	2361137	1.14	2392000	**98.7**	30	-	125	
175	Lu	1	1999770	2.04	2020000	**99.0**	30	-	125	
209	Bi	1	2234012	1.43	2513000	**88.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\068SMPL.D\068SMPL.D#
Date Acquired: Sep 14 2011 01:47 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-7-A Vial Number: 2503
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.004**	ug/l	0.00	100.0	900	6	P	
23	**Na**	1	**2193.000**	ug/l	2,193.00	0.8	450000	6	A	
24	**Mg**	1	**67.090**	ug/l	67.09	1.3	450000	6	P	
27	**Al**	1	**3.136**	ug/l	3.14	4.5	450000	6	P	
31	**P**	1	**145.500**	ug/l	145.50	1.5	450000	6	P	
39	**K**	1	**119.600**	ug/l	119.60	30.3	450000	45	P	
44	**Ca**	1	**381.800**	ug/l	381.80	0.6	450000	45	P	
47	**Ti**	1	**0.096**	ug/l	0.10	32.8	4500	45	P	
51	**V**	1	**-0.012**	ug/l	-0.01	211.5	4500	45	P	
52	**Cr**	1	**0.112**	ug/l	0.11	9.4	4500	45	P	
55	**Mn**	1	**2.290**	ug/l	2.29	14.6	4500	45	P	
57	**Fe**	1	**7.141**	ug/l	7.14	17.6	450000	74	P	
59	**Co**	1	**0.011**	ug/l	0.01	19.4	4500	74	P	
60	**Ni**	1	**0.154**	ug/l	0.15	5.8	4500	74	P	
63	**Cu**	1	**0.259**	ug/l	0.26	4.1	4500	74	P	
66	**Zn**	1	**2.438**	ug/l	2.44	6.2	4500	74	P	
75	**As**	1	**0.209**	ug/l	0.21	13.3	4500	74	P	
78	**Se**	1	**0.028**	ug/l	0.03	112.4	4500	74	P	
88	**Sr**	1	**1.926**	ug/l	1.93	4.0	4500	74	P	
95	**Mo**	1	**0.348**	ug/l	0.35	8.4	4500	103	P	
109	**Ag**	1	**0.015**	ug/l	0.01	2.0	4500	103	P	
111	**Cd**	1	**0.017**	ug/l	0.02	61.1	4500	103	P	
118	**Sn**	1	**0.287**	ug/l	0.29	4.5	4500	103	P	
123	**Sb**	1	**0.107**	ug/l	0.11	12.6	4500	103	P	
135	**Ba**	1	**0.303**	ug/l	0.30	17.0	4500	103	P	
200	**Hg**	1	**0.006**	ug/l	0.01	41.2	45	209	P	
205	**Tl**	1	**0.041**	ug/l	0.04	10.2	4500	209	P	
208	**Pb**	1	**0.112**	ug/l	0.11	8.7	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.00	82.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	123522	0.73	127500	**96.9**	30	-	125	
45	Sc	1	1741924	1.94	1680000	**103.7**	30	-	125	
74	Ge	1	4048475	1.36	3781000	**107.1**	30	-	125	
103	Rh	1	5641930	1.48	5317000	**106.1**	30	-	125	
165	Ho	1	2627638	0.71	2392000	**109.9**	30	-	125	
175	Lu	1	2242430	1.28	2020000	**111.0**	30	-	125	
209	Bi	1	2751416	1.59	2513000	**109.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\069SMPL.D\069SMPL.D#
Date Acquired: Sep 14 2011 01:51 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-7-A Vial Number: 2504
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.002**	ug/l	0.00	225.3	900	6	P	
23	Na	1	**516.500**	ug/l	516.50	2.2	450000	6	A	
24	Mg	1	**16.860**	ug/l	16.86	3.1	450000	6	P	
27	Al	1	**5.055**	ug/l	5.06	3.8	450000	6	P	
31	P	1	**109.500**	ug/l	109.50	3.1	450000	6	P	
39	K	1	**34.620**	ug/l	34.62	31.1	450000	45	P	
44	Ca	1	**84.870**	ug/l	84.87	4.8	450000	45	P	
47	Ti	1	**0.169**	ug/l	0.17	21.6	4500	45	P	
51	V	1	**0.107**	ug/l	0.11	6.4	4500	45	P	
52	Cr	1	**0.675**	ug/l	0.67	7.6	4500	45	P	
55	Mn	1	**1.794**	ug/l	1.79	7.0	4500	45	P	
57	Fe	1	**10.600**	ug/l	10.60	2.7	450000	74	P	
59	Co	1	**0.016**	ug/l	0.02	13.1	4500	74	P	
60	Ni	1	**0.622**	ug/l	0.62	3.1	4500	74	P	
63	Cu	1	**0.247**	ug/l	0.25	1.9	4500	74	P	
66	Zn	1	**0.735**	ug/l	0.73	4.6	4500	74	P	
75	As	1	**0.104**	ug/l	0.10	28.9	4500	74	P	
78	Se	1	**0.059**	ug/l	0.06	184.0	4500	74	P	
88	Sr	1	**0.673**	ug/l	0.67	4.1	4500	74	P	
95	Mo	1	**0.117**	ug/l	0.12	24.6	4500	103	P	
109	Ag	1	**0.002**	ug/l	0.00	78.1	4500	103	P	
111	Cd	1	**0.019**	ug/l	0.02	24.6	4500	103	P	
118	Sn	1	**0.261**	ug/l	0.26	8.8	4500	103	P	
123	Sb	1	**0.012**	ug/l	0.01	20.4	4500	103	P	
135	Ba	1	**0.205**	ug/l	0.21	12.8	4500	103	P	
200	Hg	1	**0.002**	ug/l	0.00	44.0	45	209	P	
205	Tl	1	**0.025**	ug/l	0.03	6.6	4500	209	P	
208	Pb	1	**0.070**	ug/l	0.07	21.1	4500	209	P	
238	U	1	**-0.001**	ug/l	0.00	41.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	124712	1.36	127500	**97.8**	30	-	125	
45	Sc	1	1756423	3.63	1680000	**104.5**	30	-	125	
74	Ge	1	4069747	3.24	3781000	**107.6**	30	-	125	
103	Rh	1	5793663	1.41	5317000	**109.0**	30	-	125	
165	Ho	1	2697388	1.85	2392000	**112.8**	30	-	125	
175	Lu	1	2256658	1.85	2020000	**111.7**	30	-	125	
209	Bi	1	2807148	2.03	2513000	**111.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\070SMPL.D\070SMPL.D#
Date Acquired: Sep 14 2011 01:56 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-8-A Vial Number: 2505
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.009**	ug/l	-0.01	54.1	900	6	P	
23	Na	1	**128300.000**	ug/l	128,300.00	2.5	450000	6	A	
24	Mg	1	**26200.000**	ug/l	26,200.00	2.8	450000	6	A	
27	Al	1	**3.720**	ug/l	3.72	5.9	450000	6	P	
31	P	1	**1665.000**	ug/l	1,665.00	1.9	450000	6	P	
39	K	1	**4815.000**	ug/l	4,815.00	3.2	450000	45	A	
44	Ca	1	**119900.000**	ug/l	119,900.00	2.0	450000	45	A	
47	Ti	1	**0.640**	ug/l	0.64	8.2	4500	45	P	
51	V	1	**0.390**	ug/l	0.39	8.5	4500	45	P	
52	Cr	1	**0.063**	ug/l	0.06	7.6	4500	45	P	
55	Mn	1	**1217.000**	ug/l	1,217.00	2.8	4500	45	A	
57	Fe	1	**3147.000**	ug/l	3,147.00	0.3	450000	74	P	
59	Co	1	**0.235**	ug/l	0.23	5.9	4500	74	P	
60	Ni	1	**0.494**	ug/l	0.49	3.4	4500	74	P	
63	Cu	1	**0.226**	ug/l	0.23	13.0	4500	74	P	
66	Zn	1	**1.213**	ug/l	1.21	13.5	4500	74	P	
75	As	1	**54.950**	ug/l	54.95	0.4	4500	74	P	
78	Se	1	**0.262**	ug/l	0.26	4.3	4500	74	P	
88	Sr	1	**823.400**	ug/l	823.40	0.7	4500	74	A	
95	Mo	1	**1.487**	ug/l	1.49	2.2	4500	103	P	
109	Ag	1	**0.003**	ug/l	0.00	48.8	4500	103	P	
111	Cd	1	**0.034**	ug/l	0.03	57.0	4500	103	P	
118	Sn	1	**0.212**	ug/l	0.21	1.5	4500	103	P	
123	Sb	1	**0.132**	ug/l	0.13	9.4	4500	103	P	
135	Ba	1	**189.500**	ug/l	189.50	2.1	4500	103	P	
200	Hg	1	**0.029**	ug/l	0.03	13.5	45	209	P	
205	Tl	1	**0.026**	ug/l	0.03	18.1	4500	209	P	
208	Pb	1	**0.087**	ug/l	0.09	4.6	4500	209	P	
238	U	1	**0.193**	ug/l	0.19	2.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	106440	1.57	127500	**83.5**	30	-	125	
45	Sc	1	1625728	3.16	1680000	**96.8**	30	-	125	
74	Ge	1	3700329	0.93	3781000	**97.9**	30	-	125	
103	Rh	1	4874688	1.63	5317000	**91.7**	30	-	125	
165	Ho	1	2488778	1.55	2392000	**104.0**	30	-	125	
175	Lu	1	2093326	1.50	2020000	**103.6**	30	-	125	
209	Bi	1	2362720	2.04	2513000	**94.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\071SMPL.D\071SMPL.D#
Date Acquired: Sep 14 2011 02:00 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-8-A Vial Number: 2506
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.014**	ug/l	0.01	90.9	900	6	P	
23	**Na**	1	**122800.000**	ug/l	122,800.00	0.2	450000	6	A	
24	**Mg**	1	**25940.000**	ug/l	25,940.00	0.5	450000	6	A	
27	**Al**	1	**652.200**	ug/l	652.20	1.9	450000	6	P	
31	**P**	1	**2156.000**	ug/l	2,156.00	0.8	450000	6	P	
39	**K**	1	**4684.000**	ug/l	4,684.00	0.2	450000	45	A	
44	**Ca**	1	**116900.000**	ug/l	116,900.00	0.6	450000	45	A	
47	**Ti**	1	**25.040**	ug/l	25.04	3.0	4500	45	P	
51	**V**	1	**2.048**	ug/l	2.05	3.6	4500	45	P	
52	**Cr**	1	**1.375**	ug/l	1.38	4.5	4500	45	P	
55	**Mn**	1	**1233.000**	ug/l	1,233.00	0.8	4500	45	A	
57	**Fe**	1	**5139.000**	ug/l	5,139.00	1.2	450000	74	A	
59	**Co**	1	**0.777**	ug/l	0.78	3.5	4500	74	P	
60	**Ni**	1	**1.785**	ug/l	1.79	5.4	4500	74	P	
63	**Cu**	1	**3.048**	ug/l	3.05	1.9	4500	74	P	
66	**Zn**	1	**11.420**	ug/l	11.42	2.2	4500	74	P	
75	**As**	1	**56.120**	ug/l	56.12	1.6	4500	74	P	
78	**Se**	1	**0.219**	ug/l	0.22	11.8	4500	74	P	
88	**Sr**	1	**808.800**	ug/l	808.80	1.2	4500	74	A	
95	**Mo**	1	**1.466**	ug/l	1.47	0.5	4500	103	P	
109	**Ag**	1	**0.014**	ug/l	0.01	40.3	4500	103	P	
111	**Cd**	1	**1.301**	ug/l	1.30	6.0	4500	103	P	
118	**Sn**	1	**0.278**	ug/l	0.28	4.9	4500	103	P	
123	**Sb**	1	**0.191**	ug/l	0.19	5.2	4500	103	P	
135	**Ba**	1	**200.200**	ug/l	200.20	1.5	4500	103	P	
200	**Hg**	1	**0.028**	ug/l	0.03	28.8	45	209	P	
205	**Tl**	1	**0.032**	ug/l	0.03	4.9	4500	209	P	
208	**Pb**	1	**2.839**	ug/l	2.84	3.0	4500	209	P	
238	**U**	1	**0.234**	ug/l	0.23	1.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	107197	0.86	127500	**84.1**	30	-	125	
45	Sc	1	1633875	2.32	1680000	**97.3**	30	-	125	
74	Ge	1	3725049	1.39	3781000	**98.5**	30	-	125	
103	Rh	1	4860385	1.65	5317000	**91.4**	30	-	125	
165	Ho	1	2433092	1.92	2392000	**101.7**	30	-	125	
175	Lu	1	2094975	1.58	2020000	**103.7**	30	-	125	
209	Bi	1	2370900	1.85	2513000	**94.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\072SMPL.D\072SMPL.D#
Date Acquired: Sep 14 2011 02:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-9-A Vial Number: 2507
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	0.00	251.8	900	6	P	
23	**Na**	1	**131600.000**	ug/l	131,600.00	1.4	450000	6	A	
24	**Mg**	1	**24630.000**	ug/l	24,630.00	0.8	450000	6	A	
27	**Al**	1	**3.425**	ug/l	3.43	8.3	450000	6	P	
31	**P**	1	**825.200**	ug/l	825.20	1.2	450000	6	P	
39	**K**	1	**7977.000**	ug/l	7,977.00	0.9	450000	45	A	
44	**Ca**	1	**122300.000**	ug/l	122,300.00	0.8	450000	45	A	
47	**Ti**	1	**0.421**	ug/l	0.42	13.0	4500	45	P	
51	**V**	1	**1.212**	ug/l	1.21	5.3	4500	45	P	
52	**Cr**	1	**0.192**	ug/l	0.19	2.0	4500	45	P	
55	**Mn**	1	**1028.000**	ug/l	1,028.00	2.2	4500	45	A	
57	**Fe**	1	**155.800**	ug/l	155.80	1.3	450000	74	P	
59	**Co**	1	**0.286**	ug/l	0.29	0.8	4500	74	P	
60	**Ni**	1	**3.175**	ug/l	3.18	2.4	4500	74	P	
63	**Cu**	1	**1.331**	ug/l	1.33	2.3	4500	74	P	
66	**Zn**	1	**2.766**	ug/l	2.77	4.3	4500	74	P	
75	**As**	1	**31.490**	ug/l	31.49	0.1	4500	74	P	
78	**Se**	1	**0.087**	ug/l	0.09	13.3	4500	74	P	
88	**Sr**	1	**862.700**	ug/l	862.70	0.8	4500	74	A	
95	**Mo**	1	**70.670**	ug/l	70.67	1.4	4500	103	P	
109	**Ag**	1	**0.002**	ug/l	0.00	116.7	4500	103	P	
111	**Cd**	1	**0.545**	ug/l	0.55	11.5	4500	103	P	
118	**Sn**	1	**0.187**	ug/l	0.19	4.1	4500	103	P	
123	**Sb**	1	**0.105**	ug/l	0.11	5.5	4500	103	P	
135	**Ba**	1	**146.900**	ug/l	146.90	1.0	4500	103	P	
200	**Hg**	1	**0.021**	ug/l	0.02	28.6	45	209	P	
205	**Tl**	1	**0.027**	ug/l	0.03	21.7	4500	209	P	
208	**Pb**	1	**0.083**	ug/l	0.08	16.8	4500	209	P	
238	**U**	1	**0.569**	ug/l	0.57	1.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	106957	1.47	127500	**83.9**	30	-	125	
45	Sc	1	1607780	1.98	1680000	**95.7**	30	-	125	
74	Ge	1	3659916	0.25	3781000	**96.8**	30	-	125	
103	Rh	1	4820896	0.57	5317000	**90.7**	30	-	125	
165	Ho	1	2411175	0.63	2392000	**100.8**	30	-	125	
175	Lu	1	2078606	1.96	2020000	**102.9**	30	-	125	
209	Bi	1	2347680	0.72	2513000	**93.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\073SMPL.D\073SMPL.D#
Date Acquired: Sep 14 2011 02:09 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-9-A Vial Number: 2508
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	-0.01	117.0	900	6	P	
23	**Na**	1	**119600.000**	ug/l	119,600.00	0.2	450000	6	A	
24	**Mg**	1	**21670.000**	ug/l	21,670.00	0.7	450000	6	A	
27	**Al**	1	**23.380**	ug/l	23.38	3.2	450000	6	P	
31	**P**	1	**768.800**	ug/l	768.80	1.1	450000	6	P	
39	**K**	1	**8193.000**	ug/l	8,193.00	2.1	450000	45	A	
44	**Ca**	1	**108700.000**	ug/l	108,700.00	1.9	450000	45	A	
47	**Ti**	1	**1.158**	ug/l	1.16	5.5	4500	45	P	
51	**V**	1	**1.342**	ug/l	1.34	3.2	4500	45	P	
52	**Cr**	1	**0.205**	ug/l	0.21	5.6	4500	45	P	
55	**Mn**	1	**1014.000**	ug/l	1,014.00	2.0	4500	45	A	
57	**Fe**	1	**231.500**	ug/l	231.50	0.7	450000	74	P	
59	**Co**	1	**0.400**	ug/l	0.40	4.3	4500	74	P	
60	**Ni**	1	**1.484**	ug/l	1.48	2.9	4500	74	P	
63	**Cu**	1	**1.572**	ug/l	1.57	1.0	4500	74	P	
66	**Zn**	1	**6.094**	ug/l	6.09	2.1	4500	74	P	
75	**As**	1	**28.010**	ug/l	28.01	0.7	4500	74	P	
78	**Se**	1	**0.160**	ug/l	0.16	31.7	4500	74	P	
88	**Sr**	1	**759.700**	ug/l	759.70	1.9	4500	74	A	
95	**Mo**	1	**77.570**	ug/l	77.57	1.4	4500	103	P	
109	**Ag**	1	**0.007**	ug/l	0.01	16.3	4500	103	P	
111	**Cd**	1	**1.815**	ug/l	1.82	4.0	4500	103	P	
118	**Sn**	1	**0.316**	ug/l	0.32	4.0	4500	103	P	
123	**Sb**	1	**0.363**	ug/l	0.36	4.6	4500	103	P	
135	**Ba**	1	**135.400**	ug/l	135.40	1.4	4500	103	P	
200	**Hg**	1	**0.024**	ug/l	0.02	18.7	45	209	P	
205	**Tl**	1	**0.028**	ug/l	0.03	19.5	4500	209	P	
208	**Pb**	1	**0.386**	ug/l	0.39	3.0	4500	209	P	
238	**U**	1	**0.647**	ug/l	0.65	3.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	113131	0.24	127500	**88.7**	30	-	125	
45	Sc	1	1677760	1.59	1680000	**99.9**	30	-	125	
74	Ge	1	3835172	1.22	3781000	**101.4**	30	-	125	
103	Rh	1	5082501	0.88	5317000	**95.6**	30	-	125	
165	Ho	1	2496467	1.68	2392000	**104.4**	30	-	125	
175	Lu	1	2127475	2.02	2020000	**105.3**	30	-	125	
209	Bi	1	2432862	1.00	2513000	**96.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\074SMPL.D\074SMPL.D#
Date Acquired: Sep 14 2011 02:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-A-10-A Vial Number: 2509
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.025**	ug/l	0.03	47.8	900	6	P	
23	**Na**	1	**102900.000**	ug/l	102,900.00	0.5	450000	6	A	
24	**Mg**	1	**4181.000**	ug/l	4,181.00	0.3	450000	6	A	
27	**Al**	1	**34.290**	ug/l	34.29	2.5	450000	6	P	
31	**P**	1	**226.000**	ug/l	226.00	1.5	450000	6	P	
39	**K**	1	**409200.000**	ug/l	409,200.00	0.7	450000	45	A	
44	**Ca**	1	**16130.000**	ug/l	16,130.00	1.5	450000	45	A	
47	**Ti**	1	**4.690**	ug/l	4.69	3.1	4500	45	P	
51	**V**	1	**5.902**	ug/l	5.90	2.3	4500	45	P	
52	**Cr**	1	**0.728**	ug/l	0.73	2.0	4500	45	P	
55	**Mn**	1	**78.210**	ug/l	78.21	2.5	4500	45	P	
57	**Fe**	1	**679.400**	ug/l	679.40	0.7	450000	74	P	
59	**Co**	1	**0.784**	ug/l	0.78	2.5	4500	74	P	
60	**Ni**	1	**24.940**	ug/l	24.94	0.6	4500	74	P	
63	**Cu**	1	**8.122**	ug/l	8.12	1.0	4500	74	P	
66	**Zn**	1	**2.360**	ug/l	2.36	1.4	4500	74	P	
75	**As**	1	**2.975**	ug/l	2.98	4.0	4500	74	P	
78	**Se**	1	**0.978**	ug/l	0.98	1.2	4500	74	P	
88	**Sr**	1	**516.800**	ug/l	516.80	1.1	4500	74	A	
95	**Mo**	1	**142.700**	ug/l	142.70	1.1	4500	103	P	
109	**Ag**	1	**0.023**	ug/l	0.02	17.6	4500	103	P	
111	**Cd**	1	**0.046**	ug/l	0.05	33.3	4500	103	P	
118	**Sn**	1	**0.253**	ug/l	0.25	10.7	4500	103	P	
123	**Sb**	1	**0.621**	ug/l	0.62	5.7	4500	103	P	
135	**Ba**	1	**71.310**	ug/l	71.31	1.4	4500	103	P	
200	**Hg**	1	**0.080**	ug/l	0.08	9.7	45	209	P	
205	**Tl**	1	**0.018**	ug/l	0.02	49.1	4500	209	P	
208	**Pb**	1	**1.355**	ug/l	1.36	2.3	4500	209	P	
238	**U**	1	**5.971**	ug/l	5.97	0.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	115092	0.45	127500	**90.3**	30	-	125	
45	Sc	1	1647202	2.26	1680000	**98.0**	30	-	125	
74	Ge	1	3703370	0.27	3781000	**97.9**	30	-	125	
103	Rh	1	4810839	0.87	5317000	**90.5**	30	-	125	
165	Ho	1	2374150	1.18	2392000	**99.3**	30	-	125	
175	Lu	1	2011615	1.62	2020000	**99.6**	30	-	125	
209	Bi	1	2222302	0.69	2513000	**88.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\075SMPL.D\075SMPL.D#
Date Acquired: Sep 14 2011 02:17 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28399-B-10-A Vial Number: 2510
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.034**	ug/l	0.03	40.6	900	6	P	
23	**Na**	1	**108400.000**	ug/l	108,400.00	1.6	450000	6	A	
24	**Mg**	1	**3997.000**	ug/l	3,997.00	1.9	450000	6	A	
27	**Al**	1	**49.980**	ug/l	49.98	1.8	450000	6	P	
31	**P**	1	**293.200**	ug/l	293.20	1.2	450000	6	P	
39	**K**	1	**419000.000**	ug/l	419,000.00	1.4	450000	45	A	
44	**Ca**	1	**16150.000**	ug/l	16,150.00	0.5	450000	45	A	
47	**Ti**	1	**6.623**	ug/l	6.62	1.8	4500	45	P	
51	**V**	1	**7.282**	ug/l	7.28	1.6	4500	45	P	
52	**Cr**	1	**0.865**	ug/l	0.86	7.1	4500	45	P	
55	**Mn**	1	**85.320**	ug/l	85.32	2.4	4500	45	P	
57	**Fe**	1	**937.600**	ug/l	937.60	0.4	450000	74	P	
59	**Co**	1	**0.975**	ug/l	0.97	2.2	4500	74	P	
60	**Ni**	1	**29.870**	ug/l	29.87	1.2	4500	74	P	
63	**Cu**	1	**20.310**	ug/l	20.31	1.3	4500	74	P	
66	**Zn**	1	**3.417**	ug/l	3.42	3.9	4500	74	P	
75	**As**	1	**3.419**	ug/l	3.42	4.7	4500	74	P	
78	**Se**	1	**1.060**	ug/l	1.06	10.8	4500	74	P	
88	**Sr**	1	**508.600**	ug/l	508.60	0.5	4500	74	A	
95	**Mo**	1	**145.800**	ug/l	145.80	0.8	4500	103	P	
109	**Ag**	1	**0.052**	ug/l	0.05	6.2	4500	103	P	
111	**Cd**	1	**1.187**	ug/l	1.19	7.6	4500	103	P	
118	**Sn**	1	**0.221**	ug/l	0.22	0.8	4500	103	P	
123	**Sb**	1	**0.687**	ug/l	0.69	2.6	4500	103	P	
135	**Ba**	1	**73.290**	ug/l	73.29	0.9	4500	103	P	
200	**Hg**	1	**0.090**	ug/l	0.09	13.1	45	209	P	
205	**Tl**	1	**0.028**	ug/l	0.03	19.4	4500	209	P	
208	**Pb**	1	**4.333**	ug/l	4.33	1.9	4500	209	P	
238	**U**	1	**5.889**	ug/l	5.89	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	122568	1.57	127500	**96.1**	30	-	125	
45	Sc	1	1728251	2.57	1680000	**102.9**	30	-	125	
74	Ge	1	3819870	1.26	3781000	**101.0**	30	-	125	
103	Rh	1	4872606	1.24	5317000	**91.6**	30	-	125	
165	Ho	1	2382280	0.98	2392000	**99.6**	30	-	125	
175	Lu	1	2015339	0.55	2020000	**99.8**	30	-	125	
209	Bi	1	2278283	1.26	2513000	**90.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\076SMPL.D\076SMPL.D#
Date Acquired: Sep 14 2011 02:21 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.650**	ug/l	46.65	1.7	900	6	P	
23	**Na**	1	**4747.000**	ug/l	4,747.00	0.9	450000	6	A	
24	**Mg**	1	**4740.000**	ug/l	4,740.00	1.6	450000	6	A	
27	**Al**	1	**467.200**	ug/l	467.20	1.2	450000	6	P	
31	**P**	1	**4578.000**	ug/l	4,578.00	1.4	450000	6	P	
39	**K**	1	**4806.000**	ug/l	4,806.00	1.6	450000	45	A	
44	**Ca**	1	**4800.000**	ug/l	4,800.00	1.7	450000	45	P	
47	**Ti**	1	**46.960**	ug/l	46.96	1.6	4500	45	P	
51	**V**	1	**47.040**	ug/l	47.04	1.6	4500	45	P	
52	**Cr**	1	**47.370**	ug/l	47.37	2.1	4500	45	P	
55	**Mn**	1	**48.060**	ug/l	48.06	2.2	4500	45	P	
57	**Fe**	1	**4861.000**	ug/l	4,861.00	1.2	450000	74	A	
59	**Co**	1	**47.720**	ug/l	47.72	1.3	4500	74	P	
60	**Ni**	1	**47.820**	ug/l	47.82	1.6	4500	74	P	
63	**Cu**	1	**48.240**	ug/l	48.24	1.4	4500	74	P	
66	**Zn**	1	**49.240**	ug/l	49.24	0.8	4500	74	P	
75	**As**	1	**47.930**	ug/l	47.93	1.6	4500	74	P	
78	**Se**	1	**48.040**	ug/l	48.04	1.3	4500	74	P	
88	**Sr**	1	**48.480**	ug/l	48.48	1.1	4500	74	P	
95	**Mo**	1	**48.460**	ug/l	48.46	1.3	4500	103	P	
109	**Ag**	1	**48.060**	ug/l	48.06	1.1	4500	103	P	
111	**Cd**	1	**49.330**	ug/l	49.33	2.3	4500	103	P	
118	**Sn**	1	**49.450**	ug/l	49.45	1.5	4500	103	P	
123	**Sb**	1	**49.190**	ug/l	49.19	1.3	4500	103	P	
135	**Ba**	1	**49.320**	ug/l	49.32	2.0	4500	103	P	
200	**Hg**	1	**2.374**	ug/l	2.37	2.6	45	209	P	
205	**Tl**	1	**48.380**	ug/l	48.38	3.4	4500	209	A	
208	**Pb**	1	**48.830**	ug/l	48.83	0.6	4500	209	P	
238	**U**	1	**49.110**	ug/l	49.11	1.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	132143	0.62	127500	**103.6**	30	-	125	
45	Sc	1	1833329	1.99	1680000	**109.1**	30	-	125	
74	Ge	1	4120365	1.07	3781000	**109.0**	30	-	125	
103	Rh	1	5597743	1.01	5317000	**105.3**	30	-	125	
165	Ho	1	2638930	0.33	2392000	**110.3**	30	-	125	
175	Lu	1	2251771	0.96	2020000	**111.5**	30	-	125	
209	Bi	1	2664636	0.67	2513000	**106.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091411AM.B\077SMPL.D\077SMPL.D#
Date Acquired: Sep 14 2011 02:26 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 14 2011 02:47 pm
ISTD Ref File : C:\ICPCHEM\1\DATA\091411AM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.00	81.2	900	6	P	
23	**Na**	1	**1.219**	ug/l	1.22	165.1	450000	6	P	
24	**Mg**	1	**1.166**	ug/l	1.17	17.4	450000	6	P	
27	**Al**	1	**-0.078**	ug/l	-0.08	123.8	450000	6	P	
31	**P**	1	**2.184**	ug/l	2.18	13.5	450000	6	P	
39	**K**	1	**16.890**	ug/l	16.89	15.3	450000	45	P	
44	**Ca**	1	**1.564**	ug/l	1.56	30.6	450000	45	P	
47	**Ti**	1	**0.012**	ug/l	0.01	111.2	4500	45	P	
51	**V**	1	**0.016**	ug/l	0.02	118.6	4500	45	P	
52	**Cr**	1	**0.003**	ug/l	0.00	160.1	4500	45	P	
55	**Mn**	1	**0.017**	ug/l	0.02	13.8	4500	45	P	
57	**Fe**	1	**1.760**	ug/l	1.76	17.7	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.01	44.1	4500	74	P	
60	**Ni**	1	**-0.011**	ug/l	-0.01	63.5	4500	74	P	
63	**Cu**	1	**0.230**	ug/l	0.23	15.8	4500	74	P	
66	**Zn**	1	**0.034**	ug/l	0.03	42.1	4500	74	P	
75	**As**	1	**0.020**	ug/l	0.02	75.1	4500	74	P	
78	**Se**	1	**0.024**	ug/l	0.02	155.9	4500	74	P	
88	**Sr**	1	**0.031**	ug/l	0.03	36.2	4500	74	P	
95	**Mo**	1	**0.217**	ug/l	0.22	16.2	4500	103	P	
109	**Ag**	1	**0.010**	ug/l	0.01	26.3	4500	103	P	
111	**Cd**	1	**0.013**	ug/l	0.01	50.9	4500	103	P	
118	**Sn**	1	**0.176**	ug/l	0.18	17.8	4500	103	P	
123	**Sb**	1	**0.032**	ug/l	0.03	12.7	4500	103	P	
135	**Ba**	1	**0.018**	ug/l	0.02	39.6	4500	103	P	
200	**Hg**	1	**0.013**	ug/l	0.01	13.5	45	209	P	
205	**Tl**	1	**0.220**	ug/l	0.22	7.5	4500	209	P	
208	**Pb**	1	**0.012**	ug/l	0.01	38.9	4500	209	P	
238	**U**	1	**0.022**	ug/l	0.02	10.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	132445	1.48	127500	**103.9**	30	-	125	
45	Sc	1	1789139	3.10	1680000	**106.5**	30	-	125	
74	Ge	1	4074214	0.66	3781000	**107.8**	30	-	125	
103	Rh	1	5705746	0.29	5317000	**107.3**	30	-	125	
165	Ho	1	2627121	1.62	2392000	**109.8**	30	-	125	
175	Lu	1	2227797	1.14	2020000	**110.3**	30	-	125	
209	Bi	1	2769608	2.51	2513000	**110.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

Step	Mass	Element	r	b(blank)	DL	BEC	Unit
1	6	Li	0.0000	--- ---	---	ug/l	
1	7	Li	0.0000	--- ---	---	ug/l	
1	9	Be	0.9999	3.472E-03	6.694E-03	2.261E-02	ug/l
1	23	Na	0.9999	82.78 3.142E-01		94.52	ug/l
1	24	Mg	0.9999	2.022E-01	2.998E-01	3.889E-01	ug/l
1	27	Al	0.9996	2.084E-01	1.364E-01	6.537E-01	ug/l
1	31	P	1.0000	5.283E-01	4.190	20.72	ug/l
1	39	K	1.0000	3.942 8.419	109.2	ug/l	
1	44	Ca	1.0000	8.778E-03	7.160E-01	5.112	ug/l
1	45	Sc	0.0000	--- ---	---	ug/l	
1	47	Ti	1.0000	4.339E-04	5.437E-02	4.692E-02	ug/l
1	51	V	1.0000	1.312E-01	5.985E-02	6.074E-01	ug/l
1	52	Cr	1.0000	3.259E-02	2.104E-02	1.327E-01	ug/l
1	55	Mn	1.0000	2.553E-03	3.156E-03	1.313E-02	ug/l
1	57	Fe	0.9998	3.156E-03	3.839E-01	1.347	ug/l
1	59	Co	0.9999	5.876E-04	2.080E-03	1.618E-03	ug/l
1	60	Ni	1.0000	2.802E-03	3.751E-02	3.158E-02	ug/l
1	63	Cu	0.9997	7.685E-02	5.689E-02	3.349E-01	ug/l
1	66	Zn	0.9999	1.703E-03	5.763E-02	7.969E-02	ug/l
1	74	Ge	0.0000	--- ---	---	ug/l	
1	75	As	1.0000	5.706E-03	8.087E-02	1.431E-01	ug/l
1	78	Se	1.0000	3.936E-03	2.531E-01	9.406E-01	ug/l
1	88	Sr	1.0000	1.358E-02	1.239E-02	5.175E-02	ug/l
1	95	Mo	1.0000	6.910E-04	1.559E-02	1.483E-02	ug/l
1	103	Rh	0.0000	--- ---	---	ug/l	
1	109	Ag	0.9998	3.478E-04	4.490E-03	3.315E-03	ug/l
1	111	Cd	1.0000	2.825E-04	1.056E-02	1.481E-02	ug/l
1	118	Sn	0.9999	2.720E-03	2.705E-02	6.238E-02	ug/l
1	123	Sb	1.0000	5.203E-04	1.361E-02	1.043E-02	ug/l
1	135	Ba	1.0000	2.176E-04	2.825E-02	1.765E-02	ug/l
1	165	Ho	0.0000	--- ---	---	ug/l	
1	175	Lu	0.0000	--- ---	---	ug/l	
1	200	Hg	1.0000	1.042E-03	4.498E-03	2.193E-02	ug/l
1	205	Tl	1.0000	1.638E-02	1.917E-02	3.789E-02	ug/l
1	208	Pb	1.0000	2.099E-01	3.181E-02	3.647E-01	ug/l
1	209	Bi	0.0000	--- ---	---	ug/l	
1	238	U	1.0000	8.006E-04	6.066E-04	1.353E-03	ug/l

TA Seattle Calibration Blank QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#
Date Acquired: Sep 15 2011 03:29 pm Acq. Method: 00He_ALL.M
Sample Name: STD0 Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211
Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Tune # Name
Operator: FCW ICP-MS ID#SEA44 1 c:\icpchem\1\7500\he.u
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C 2 C:\ICPCHEM\1\7500\
Last Cal. Update: Sep 16 2011 10:30 am 3 C:\ICPCHEM\1\7500\
ISTD Ref File : --- Sample Type: CalBlk

QC&ISTD Elements

Element		Tune	CPS Mean		SD	RSD(%)
6	Li	1	81575.7	P	326.80	0.40
7	Li	1	6760.2	P	246.00	3.64
9	Be	1	5.7	P	0.58	10.19
23	Na	1	135061.5	P	391.60	0.29
24	Mg	1	330.0	P	85.44	25.89
27	Al	1	340.0	P	25.00	7.35
31	P	1	861.7	P	54.86	6.37
39	K	1	123583.9	P	837.00	0.68
44	Ca	1	275.5	P	18.42	6.69
45	Sc	1	1568210.0	A	31180.00	1.99
47	Ti	1	13.7	P	5.51	40.30
51	V	1	4112.4	P	76.57	1.86
52	Cr	1	1021.7	P	42.53	4.16
55	Mn	1	80.0	P	5.00	6.25
56	Fe	1		P		
57	Fe	1	250.0	P	20.00	8.00
59	Co	1	18.3	P	7.64	41.66
60	Ni	1	88.3	P	36.86	41.73
63	Cu	1	2411.9	P	181.50	7.53
66	Zn	1	135.0	P	32.79	24.29
74	Ge	1	3965154.0	A	68510.00	1.73
75	As	1	178.7	P	31.39	17.57
78	Se	1	123.5	P	12.12	9.81
88	Sr	1	426.1	P	37.76	8.86
95	Mo	1	55.0	P	20.00	36.36
99	(Mo)	1		P		
103	Rh	1	5756160.0	A	45610.00	0.79
106	(Cd)	1		P		
108	(Cd)	1		P		
109	Ag	1	40.0	P	18.03	45.07
111	Cd	1	32.5	P	7.53	23.16
118	Sn	1	313.3	P	47.52	15.17
123	Sb	1	60.0	P	26.46	44.10
135	Ba	1	25.0	P	13.23	52.92
165	Ho	1	2701541.0	A	26510.00	0.98
175	Lu	1	2348682.0	A	34930.00	1.49
200	Hg	1	60.7	P	5.03	8.30
205	Tl	1	885.1	P	148.60	16.79
206	Pb	1		P		
207	Pb	1		P		
208	Pb	1	12216.1	P	213.70	1.75
209	Bi	1	2910300.0	A	47570.00	1.63
238	U	1	46.7	P	7.64	16.37

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091511PM.B\005CALS.D\005CALS.D#

Date Acquired: Sep 15 2011 03:33 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD1**

Vial Number: 1305

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

Last Cal. Update: Sep 16 2011 10:30 am

ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	icpchem\1\7500\he.u
2	C:\ICPCHEM\1\7500\
3	C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	32.3	P	9.61	29.72
23	Na	6	1	170909.8	P	452.40	0.26
24	Mg	6	1	9098.4	P	188.70	2.07
27	Al	6	1	1415.1	P	57.67	4.08
31	P	6	1	1220.1	P	50.01	4.10
39	K	45	1	139303.1	P	1936.00	1.39
44	Ca	45	1	1294.1	P	56.43	4.36
47	Ti	45	1	54.0	P	16.46	30.48
51	V	45	1	4912.7	P	157.90	3.21
52	Cr	45	1	1978.5	P	23.63	1.19
55	Mn	45	1	2570.3	P	181.90	7.08
57	Fe	74	1	2266.9	P	43.12	1.90
59	Co	45	1	1155.1	P	18.03	1.56
60	Ni	45	1	825.0	P	21.79	2.64
63	Cu	45	1	4767.7	P	275.30	5.77
66	Zn	74	1	2480.3	P	36.07	1.45
75	As	45	1	328.0	P	45.03	13.73
78	Se	45	1	129.3	P	4.25	3.29
88	Sr	45	1	1611.2	P	77.10	4.79
95	Mo	74	1	476.7	P	40.72	8.54
109	Ag	103	1	1210.1	P	80.48	6.65
111	Cd	103	1	231.8	P	30.55	13.18
118	Sn	103	1	3168.8	P	141.50	4.47
123	Sb	103	1	651.7	P	52.52	8.06
135	Ba	103	1	230.0	P	25.00	10.87
200	Hg	209	1	60.3	P	5.77	9.57
205	Tl	165	1	3122.2	P	88.12	2.82
208	Pb	209	1	16493.3	P	134.30	0.81
238	U	209	1	3303.9	P	106.10	3.21

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	78764	1.73	81580	96.5	30 - 125	
45	Sc	1	1530786	2.83	1568000	97.6	30 - 125	
74	Ge	1	3814936	0.84	3965000	96.2	30 - 125	
103	Rh	1	5560956	0.93	5756000	96.6	30 - 125	
165	Ho	1	2654965	2.20	2702000	98.3	30 - 125	
175	Lu	1	2271126	1.79	2349000	96.7	30 - 125	
209	Bi	1	2802851	1.54	2910000	96.3	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091511PM.B\006CALS.D\006CALS.D#

Date Acquired: Sep 15 2011 03:37 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD2**

Vial Number: 1304

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 16 2011 10:30 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	258.3	P	18.15	7.03
23	Na	6	1	286782.9	P	2801.00	0.98
24	Mg	6	1	86506.3	P	1308.00	1.51
27	Al	6	1	8986.6	P	133.90	1.49
31	P	6	1	4997.8	P	227.60	4.55
39	K	45	1	239720.6	P	5431.00	2.27
44	Ca	45	1	5834.0	P	52.36	0.90
47	Ti	45	1	308.3	P	14.22	4.61
51	V	45	1	11236.8	P	617.30	5.49
52	Cr	45	1	8996.7	P	150.70	1.68
55	Mn	45	1	6673.5	P	63.33	0.95
57	Fe	74	1	19053.0	P	456.50	2.40
59	Co	45	1	11699.0	P	318.70	2.72
60	Ni	45	1	3203.8	P	150.60	4.70
63	Cu	45	1	10452.9	P	333.90	3.19
66	Zn	74	1	2865.4	P	13.22	0.46
75	As	45	1	1509.4	P	21.20	1.40
78	Se	45	1	258.7	P	9.09	3.51
88	Sr	45	1	9167.4	P	313.50	3.42
95	Mo	74	1	3790.7	P	116.30	3.07
109	Ag	103	1	11602.3	P	216.00	1.86
111	Cd	103	1	2237.6	P	125.00	5.59
118	Sn	103	1	5281.2	P	201.50	3.82
123	Sb	103	1	5489.7	P	110.10	2.01
135	Ba	103	1	1453.4	P	76.88	5.29
200	Hg	209	1	184.3	P	19.73	10.70
205	Tl	165	1	24466.1	P	411.90	1.68
208	Pb	209	1	44619.2	P	574.80	1.29
238	U	209	1	31876.4	P	523.90	1.64

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	80082	2.80	81580	98.2	30 - 125	
45	Sc	1	1561479	2.68	1568000	99.6	30 - 125	
74	Ge	1	3883959	0.64	3965000	98.0	30 - 125	
103	Rh	1	5592467	1.51	5756000	97.2	30 - 125	
165	Ho	1	2677433	0.86	2702000	99.1	30 - 125	
175	Lu	1	2313104	0.30	2349000	98.5	30 - 125	
209	Bi	1	2836077	1.08	2910000	97.5	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091511PM.B\007CALS.D\007CALS.D#

Date Acquired: Sep 15 2011 03:42 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD3**

Vial Number: 1303

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 16 2011 10:30 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	2525.3	P	5.57	0.22
23	Na	6	1	1599629.0	A	31540.00	1.97
24	Mg	6	1	859190.1	A	20080.00	2.34
27	Al	6	1	54097.3	P	385.30	0.71
31	P	6	1	40843.7	P	176.80	0.43
39	K	45	1	1269865.0	A	8512.00	0.67
44	Ca	45	1	53877.3	P	52.54	0.10
47	Ti	45	1	2911.3	P	48.70	1.67
51	V	45	1	72137.7	P	36.85	0.05
52	Cr	45	1	78562.3	P	1200.00	1.53
55	Mn	45	1	62418.8	P	1332.00	2.13
57	Fe	74	1	181696.1	P	2091.00	1.15
59	Co	45	1	112225.2	P	378.50	0.34
60	Ni	45	1	28594.4	P	413.60	1.45
63	Cu	45	1	79508.3	P	765.80	0.96
66	Zn	74	1	18053.3	P	382.50	2.12
75	As	45	1	12936.7	P	202.50	1.57
78	Se	45	1	1456.9	P	14.58	1.00
88	Sr	45	1	84669.6	P	878.30	1.04
95	Mo	74	1	36009.3	P	361.10	1.00
109	Ag	103	1	115789.7	P	1341.00	1.16
111	Cd	103	1	20900.1	P	453.00	2.17
118	Sn	103	1	48245.6	P	834.20	1.73
123	Sb	103	1	54113.4	P	712.90	1.32
135	Ba	103	1	13302.5	P	250.10	1.88
200	Hg	209	1	1370.1	P	54.12	3.95
205	Tl	165	1	223097.2	P	4139.00	1.86
208	Pb	209	1	333300.2	P	3677.00	1.10
238	U	209	1	319119.7	P	3126.00	0.98

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	80056	0.72	81580	98.1	30 - 125	
45	Sc	1	1556552	1.50	1568000	99.3	30 - 125	
74	Ge	1	3869425	1.15	3965000	97.6	30 - 125	
103	Rh	1	5527766	1.21	5756000	96.0	30 - 125	
165	Ho	1	2678277	0.72	2702000	99.1	30 - 125	
175	Lu	1	2299553	1.67	2349000	97.9	30 - 125	
209	Bi	1	2821848	1.30	2910000	97.0	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091511PM.B\008CALS.D\008CALS.D#

Date Acquired: Sep 15 2011 03:46 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD4**

Vial Number: 1302

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 16 2011 10:30 am

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ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	12794.6	P	336.80	2.63
23	Na	6	1	7377650.0	A	58020.00	0.79
24	Mg	6	1	4304881.0	A	106600.00	2.48
27	Al	6	1	272080.0	P	3309.00	1.22
31	P	6	1	208373.4	P	693.60	0.33
39	K	45	1	5790525.0	A	44190.00	0.76
44	Ca	45	1	271840.5	P	7763.00	2.86
47	Ti	45	1	14539.3	P	243.50	1.67
51	V	45	1	345096.9	P	7973.00	2.31
52	Cr	45	1	390831.7	P	5893.00	1.51
55	Mn	45	1	309743.1	P	2734.00	0.88
57	Fe	74	1	945092.7	A	18850.00	1.99
59	Co	45	1	559995.2	P	8281.00	1.48
60	Ni	45	1	142258.6	P	1242.00	0.87
63	Cu	45	1	377622.7	P	2863.00	0.76
66	Zn	74	1	83426.8	P	390.00	0.47
75	As	45	1	63912.5	P	364.00	0.57
78	Se	45	1	6777.5	P	62.95	0.93
88	Sr	45	1	420882.8	P	2272.00	0.54
95	Mo	74	1	181279.2	P	1677.00	0.93
109	Ag	103	1	555505.9	P	6922.00	1.25
111	Cd	103	1	103003.8	P	1223.00	1.19
118	Sn	103	1	234769.5	P	5090.00	2.17
123	Sb	103	1	268962.5	P	3789.00	1.41
135	Ba	103	1	67112.3	P	246.70	0.37
200	Hg	209	1	6564.5	P	186.10	2.83
205	Tl	165	1	1169367.0	A	15230.00	1.30
208	Pb	209	1	1579416.0	P	15380.00	0.97
238	U	209	1	1645866.0	A	13530.00	0.82

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	81142	1.85	81580	99.5	30 - 125	
45	Sc	1	1577317	2.83	1568000	100.6	30 - 125	
74	Ge	1	3896079	0.94	3965000	98.3	30 - 125	
103	Rh	1	5460635	1.28	5756000	94.9	30 - 125	
165	Ho	1	2673470	1.15	2702000	98.9	30 - 125	
175	Lu	1	2283599	2.56	2349000	97.2	30 - 125	
209	Bi	1	2744881	1.24	2910000	94.3	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\091511PM.B\009CALS.D\009CALS.D#

Date Acquired: Sep 15 2011 03:51 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD5**

Vial Number: 1301

Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

1 icpchem\1\7500\he.u

Last Cal. Update: Sep 16 2011 10:30 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	26976.2	P	178.00	0.66
23	Na	6	1	14801870.0	A	12060.00	0.08
24	Mg	6	1	8702544.0	A	150500.00	1.73
27	Al	6	1	556878.2	P	713.60	0.13
31	P	6	1	429759.6	P	2784.00	0.65
39	K	45	1	11700040.0	A	104400.00	0.89
44	Ca	45	1	549843.3	P	3335.00	0.61
47	Ti	45	1	29665.1	P	371.70	1.25
51	V	45	1	695607.7	P	9427.00	1.36
52	Cr	45	1	786443.3	M	3638.00	0.46
55	Mn	45	1	621365.4	P	6090.00	0.98
57	Fe	74	1	1891337.0	A	24700.00	1.31
59	Co	45	1	1170348.0	A	17140.00	1.46
60	Ni	45	1	283130.2	P	1482.00	0.52
63	Cu	45	1	729959.7	P	4874.00	0.67
66	Zn	74	1	165619.3	P	1403.00	0.85
75	As	45	1	127442.7	P	947.00	0.74
78	Se	45	1	13499.1	P	101.40	0.75
88	Sr	45	1	837541.8	P	9511.00	1.14
95	Mo	74	1	361474.8	P	2811.00	0.78
109	Ag	103	1	1130351.0	A	9875.00	0.87
111	Cd	103	1	204585.1	P	850.10	0.42
118	Sn	103	1	468385.3	P	689.10	0.15
123	Sb	103	1	535622.8	P	2747.00	0.51
135	Ba	103	1	132026.6	P	1446.00	1.10
200	Hg	209	1	12908.5	P	135.80	1.05
205	Tl	165	1	2278043.0	A	44000.00	1.93
208	Pb	209	1	3132329.0	A	11110.00	0.35
238	U	209	1	3193601.0	A	21940.00	0.69

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	84172	1.81	81580	103.2	30 - 125	
45	Sc	1	1602138	2.14	1568000	102.2	30 - 125	
74	Ge	1	3876809	0.46	3965000	97.8	30 - 125	
103	Rh	1	5347351	1.16	5756000	92.9	30 - 125	
165	Ho	1	2639527	0.96	2702000	97.7	30 - 125	
175	Lu	1	2303431	1.77	2349000	98.1	30 - 125	
209	Bi	1	2706194	2.26	2910000	93.0	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\010SMPL.D\010SMPL.D#
Date Acquired: Sep 15 2011 03:55 pm Acq. Method: 00He_ALL.M
Sample Name: ICV Vial Number: 1105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**41.400**	ug/l	41.40	0.3	900	6	P	
23	**Na**	1	**4000.000**	ug/l	4,000.00	1.2	450000	6	A	
24	**Mg**	1	**4018.000**	ug/l	4,018.00	1.7	450000	6	A	
27	**Al**	1	**414.500**	ug/l	414.50	1.0	450000	6	P	
31	**P**	1	**3978.000**	ug/l	3,978.00	1.6	450000	6	P	
39	**K**	1	**3977.000**	ug/l	3,977.00	2.1	450000	45	A	
44	**Ca**	1	**3988.000**	ug/l	3,988.00	1.4	450000	45	P	
47	**Ti**	1	**40.020**	ug/l	40.02	2.3	4500	45	P	
51	**V**	1	**39.990**	ug/l	39.99	1.3	4500	45	P	
52	**Cr**	1	**39.800**	ug/l	39.80	1.8	4500	45	P	
55	**Mn**	1	**40.120**	ug/l	40.12	1.0	4500	45	P	
57	**Fe**	1	**4021.000**	ug/l	4,021.00	1.2	450000	74	P	
59	**Co**	1	**39.130**	ug/l	39.13	1.7	4500	45	P	
60	**Ni**	1	**40.950**	ug/l	40.95	1.1	4500	45	P	
63	**Cu**	1	**40.970**	ug/l	40.97	2.0	4500	45	P	
66	**Zn**	1	**40.280**	ug/l	40.28	1.4	4500	74	P	
75	**As**	1	**40.470**	ug/l	40.47	1.3	4500	45	P	
78	**Se**	1	**40.200**	ug/l	40.20	1.4	4500	45	P	
88	**Sr**	1	**40.130**	ug/l	40.13	0.7	4500	45	P	
95	**Mo**	1	**40.250**	ug/l	40.25	1.4	4500	74	P	
109	**Ag**	1	**38.790**	ug/l	38.79	1.3	4500	103	P	
111	**Cd**	1	**39.710**	ug/l	39.71	0.7	4500	103	P	
118	**Sn**	1	**39.770**	ug/l	39.77	1.2	4500	103	P	
123	**Sb**	1	**39.250**	ug/l	39.25	1.5	4500	103	P	
135	**Ba**	1	**39.720**	ug/l	39.72	1.4	4500	103	P	
200	**Hg**	1	**1.976**	ug/l	1.98	1.1	45	209	P	
205	**Tl**	1	**39.430**	ug/l	39.43	1.7	4500	165	P	
208	**Pb**	1	**39.370**	ug/l	39.37	2.5	4500	209	P	
238	**U**	1	**40.640**	ug/l	40.64	1.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	82814	0.32	81580	**101.5**	30	-	125	
45	Sc	1	1587232	1.72	1568000	**101.2**	30	-	125	
74	Ge	1	3873455	1.65	3965000	**97.7**	30	-	125	
103	Rh	1	5419623	1.11	5756000	**94.2**	30	-	125	
165	Ho	1	2630297	2.00	2702000	**97.3**	30	-	125	
175	Lu	1	2285213	2.24	2349000	**97.3**	30	-	125	
209	Bi	1	2744382	2.54	2910000	**94.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\011SMPL.D\011SMPL.D#
Date Acquired: Sep 15 2011 03:59 pm Acq. Method: 00He_ALL.M
Sample Name: ICB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.017**	ug/l	0.02	61.5	900	6	P	
23	Na	1	**1.413**	ug/l	1.41	49.7	450000	6	P	
24	Mg	1	**2.153**	ug/l	2.15	16.6	450000	6	P	
27	Al	1	**0.287**	ug/l	0.29	9.0	450000	6	P	
31	P	1	**2.859**	ug/l	2.86	111.6	450000	6	P	
39	K	1	**3.952**	ug/l	3.95	91.5	450000	45	P	
44	Ca	1	**2.212**	ug/l	2.21	29.4	450000	45	P	
47	Ti	1	**0.033**	ug/l	0.03	34.2	4500	45	P	
51	V	1	**-0.048**	ug/l	-0.05	54.2	4500	45	P	
52	Cr	1	**0.030**	ug/l	0.03	8.7	4500	45	P	
55	Mn	1	**0.022**	ug/l	0.02	23.4	4500	45	P	
57	Fe	1	**3.487**	ug/l	3.49	10.6	450000	74	P	
59	Co	1	**0.019**	ug/l	0.02	5.2	4500	45	P	
60	Ni	1	**0.029**	ug/l	0.03	22.7	4500	45	P	
63	Cu	1	**0.011**	ug/l	0.01	226.9	4500	45	P	
66	Zn	1	**0.013**	ug/l	0.01	132.2	4500	74	P	
75	As	1	**0.025**	ug/l	0.02	68.9	4500	45	P	
78	Se	1	**-0.030**	ug/l	-0.03	82.3	4500	45	P	
88	Sr	1	**0.021**	ug/l	0.02	20.7	4500	45	P	
95	Mo	1	**0.141**	ug/l	0.14	20.0	4500	74	P	
109	Ag	1	**0.020**	ug/l	0.02	6.8	4500	103	P	
111	Cd	1	**0.016**	ug/l	0.02	16.8	4500	103	P	
118	Sn	1	**0.270**	ug/l	0.27	16.8	4500	103	P	
123	Sb	1	**0.116**	ug/l	0.12	24.0	4500	103	P	
135	Ba	1	**0.018**	ug/l	0.02	55.2	4500	103	P	
200	Hg	1	**0.023**	ug/l	0.02	18.1	45	209	P	
205	Tl	1	**0.299**	ug/l	0.30	8.3	4500	165	P	
208	Pb	1	**0.025**	ug/l	0.02	30.7	4500	209	P	
238	U	1	**0.033**	ug/l	0.03	6.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	82289	0.89	81580	**100.9**	30	-	125	
45	Sc	1	1580920	2.48	1568000	**100.8**	30	-	125	
74	Ge	1	3961960	1.12	3965000	**99.9**	30	-	125	
103	Rh	1	5572707	2.32	5756000	**96.8**	30	-	125	
165	Ho	1	2664623	1.01	2702000	**98.6**	30	-	125	
175	Lu	1	2280518	0.89	2349000	**97.1**	30	-	125	
209	Bi	1	2838482	0.83	2910000	**97.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\012SMPL.D\012SMPL.D#
Date Acquired: Sep 15 2011 04:04 pm Acq. Method: 00He_ALL.M
Sample Name: CRI Vial Number: 1107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.966**	ug/l	1.97	3.7	900	6	P	
23	**Na**	1	**209.500**	ug/l	209.50	2.5	450000	6	P	
24	**Mg**	1	**211.900**	ug/l	211.90	0.9	450000	6	P	
27	**Al**	1	**21.450**	ug/l	21.45	3.8	450000	6	P	
31	**P**	1	**204.800**	ug/l	204.80	2.1	450000	6	P	
39	**K**	1	**207.700**	ug/l	207.70	3.7	450000	45	P	
44	**Ca**	1	**204.900**	ug/l	204.90	2.7	450000	45	P	
47	**Ti**	1	**1.985**	ug/l	1.99	6.4	4500	45	P	
51	**V**	1	**2.046**	ug/l	2.05	7.6	4500	45	P	
52	**Cr**	1	**2.091**	ug/l	2.09	1.6	4500	45	P	
55	**Mn**	1	**2.162**	ug/l	2.16	1.4	4500	45	P	
57	**Fe**	1	**210.800**	ug/l	210.80	0.2	450000	74	P	
59	**Co**	1	**2.034**	ug/l	2.03	4.2	4500	45	P	
60	**Ni**	1	**2.126**	ug/l	2.13	2.5	4500	45	P	
63	**Cu**	1	**2.133**	ug/l	2.13	2.5	4500	45	P	
66	**Zn**	1	**2.190**	ug/l	2.19	6.1	4500	74	P	
75	**As**	1	**2.099**	ug/l	2.10	4.7	4500	45	P	
78	**Se**	1	**2.043**	ug/l	2.04	3.1	4500	45	P	
88	**Sr**	1	**2.071**	ug/l	2.07	0.8	4500	45	P	
95	**Mo**	1	**2.147**	ug/l	2.15	3.1	4500	74	P	
109	**Ag**	1	**1.996**	ug/l	2.00	0.8	4500	103	P	
111	**Cd**	1	**2.095**	ug/l	2.10	3.3	4500	103	P	
118	**Sn**	1	**2.086**	ug/l	2.09	2.9	4500	103	P	
123	**Sb**	1	**2.049**	ug/l	2.05	3.5	4500	103	P	
135	**Ba**	1	**2.022**	ug/l	2.02	2.8	4500	103	P	
200	**Hg**	1	**0.117**	ug/l	0.12	4.4	45	209	P	
205	**Tl**	1	**2.069**	ug/l	2.07	1.9	4500	165	P	
208	**Pb**	1	**2.049**	ug/l	2.05	3.9	4500	209	P	
238	**U**	1	**1.971**	ug/l	1.97	3.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	83384	1.76	81580	**102.2**	30	-	125	
45	Sc	1	1610705	1.43	1568000	**102.7**	30	-	125	
74	Ge	1	3904873	0.72	3965000	**98.5**	30	-	125	
103	Rh	1	5611778	0.76	5756000	**97.5**	30	-	125	
165	Ho	1	2685629	0.43	2702000	**99.4**	30	-	125	
175	Lu	1	2328054	1.02	2349000	**99.1**	30	-	125	
209	Bi	1	2848238	1.68	2910000	**97.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\013SMPL.D\013SMPL.D#
Date Acquired: Sep 15 2011 04:08 pm Acq. Method: 00He_ALL.M
Sample Name: ICSA Vial Number: 1101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.001**	ug/l	0.00	1885.8	900	6	P	
23	Na	1	**49220.000**	ug/l	49,220.00	0.3	450000	6	A	
24	Mg	1	**19390.000**	ug/l	19,390.00	1.5	450000	6	A	
27	Al	1	**19490.000**	ug/l	19,490.00	1.6	450000	6	A	
31	P	1	**20620.000**	ug/l	20,620.00	2.8	450000	6	A	
39	K	1	**20060.000**	ug/l	20,060.00	1.9	450000	45	A	
44	Ca	1	**59980.000**	ug/l	59,980.00	1.4	450000	45	A	
47	Ti	1	**406.500**	ug/l	406.50	0.4	4500	45	P	
51	V	1	**-0.481**	ug/l	-0.48	1.3	4500	45	P	
52	Cr	1	**1.192**	ug/l	1.19	4.1	4500	45	P	
55	Mn	1	**0.710**	ug/l	0.71	2.7	4500	45	P	
57	Fe	1	**51010.000**	ug/l	51,010.00	1.0	450000	74	A	
59	Co	1	**0.027**	ug/l	0.03	11.4	4500	45	P	
60	Ni	1	**0.409**	ug/l	0.41	5.2	4500	45	P	
63	Cu	1	**0.209**	ug/l	0.21	23.5	4500	45	P	
66	Zn	1	**1.201**	ug/l	1.20	1.7	4500	74	P	
75	As	1	**-0.020**	ug/l	-0.02	79.2	4500	45	P	
78	Se	1	**-0.002**	ug/l	0.00	4620.1	4500	45	P	
88	Sr	1	**-0.395**	ug/l	-0.39	10.7	4500	45	P	
95	Mo	1	**417.200**	ug/l	417.20	0.7	4500	74	A	
109	Ag	1	**0.024**	ug/l	0.02	30.8	4500	103	P	
111	Cd	1	**0.038**	ug/l	0.04	157.6	4500	103	P	
118	Sn	1	**0.142**	ug/l	0.14	15.5	4500	103	P	
123	Sb	1	**0.157**	ug/l	0.16	16.3	4500	103	P	
135	Ba	1	**0.098**	ug/l	0.10	22.1	4500	103	P	
200	Hg	1	**0.016**	ug/l	0.02	9.2	45	209	P	
205	Tl	1	**0.074**	ug/l	0.07	17.8	4500	165	P	
208	Pb	1	**0.053**	ug/l	0.05	38.5	4500	209	P	
238	U	1	**0.015**	ug/l	0.01	10.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	91239	1.91	81580	**111.8**	30	-	125	
45	Sc	1	1636695	1.14	1568000	**104.4**	30	-	125	
74	Ge	1	3804973	0.59	3965000	**96.0**	30	-	125	
103	Rh	1	4900089	1.11	5756000	**85.1**	30	-	125	
165	Ho	1	2516663	1.41	2702000	**93.1**	30	-	125	
175	Lu	1	2196121	1.45	2349000	**93.5**	30	-	125	
209	Bi	1	2428767	4.07	2910000	**83.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\014SMPL.D\014SMPL.D#
Date Acquired: Sep 15 2011 04:12 pm Acq. Method: 00He_ALL.M
Sample Name: ICSAB Vial Number: 1102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	0.00	656.5	900	6	P	
23	**Na**	1	**50370.000**	ug/l	50,370.00	1.1	450000	6	A	
24	**Mg**	1	**20140.000**	ug/l	20,140.00	2.0	450000	6	A	
27	**Al**	1	**20110.000**	ug/l	20,110.00	1.5	450000	6	A	
31	**P**	1	**20490.000**	ug/l	20,490.00	1.5	450000	6	A	
39	**K**	1	**19740.000**	ug/l	19,740.00	1.2	450000	45	A	
44	**Ca**	1	**59760.000**	ug/l	59,760.00	0.2	450000	45	A	
47	**Ti**	1	**404.900**	ug/l	404.90	0.3	4500	45	P	
51	**V**	1	**40.300**	ug/l	40.30	0.2	4500	45	P	
52	**Cr**	1	**40.500**	ug/l	40.50	1.0	4500	45	P	
55	**Mn**	1	**39.770**	ug/l	39.77	0.7	4500	45	P	
57	**Fe**	1	**50650.000**	ug/l	50,650.00	0.9	450000	74	A	
59	**Co**	1	**38.570**	ug/l	38.57	1.1	4500	45	P	
60	**Ni**	1	**39.870**	ug/l	39.87	1.7	4500	45	P	
63	**Cu**	1	**39.140**	ug/l	39.14	1.6	4500	45	P	
66	**Zn**	1	**21.910**	ug/l	21.91	2.7	4500	74	P	
75	**As**	1	**20.560**	ug/l	20.56	1.4	4500	45	P	
78	**Se**	1	**19.900**	ug/l	19.90	1.3	4500	45	P	
88	**Sr**	1	**-0.473**	ug/l	-0.47	3.4	4500	45	P	
95	**Mo**	1	**421.500**	ug/l	421.50	1.3	4500	74	A	
109	**Ag**	1	**10.340**	ug/l	10.34	1.6	4500	103	P	
111	**Cd**	1	**21.060**	ug/l	21.06	0.5	4500	103	P	
118	**Sn**	1	**0.107**	ug/l	0.11	22.0	4500	103	P	
123	**Sb**	1	**0.157**	ug/l	0.16	13.5	4500	103	P	
135	**Ba**	1	**0.173**	ug/l	0.17	15.1	4500	103	P	
200	**Hg**	1	**0.027**	ug/l	0.03	21.8	45	209	P	
205	**Tl**	1	**0.049**	ug/l	0.05	13.9	4500	165	P	
208	**Pb**	1	**0.260**	ug/l	0.26	10.9	4500	209	P	
238	**U**	1	**0.006**	ug/l	0.01	36.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	88560	0.58	81580	**108.6**	30	-	125	
45	Sc	1	1619618	1.16	1568000	**103.3**	30	-	125	
74	Ge	1	3800889	0.60	3965000	**95.9**	30	-	125	
103	Rh	1	4886881	0.81	5756000	**84.9**	30	-	125	
165	Ho	1	2535708	1.20	2702000	**93.8**	30	-	125	
175	Lu	1	2179530	1.41	2349000	**92.8**	30	-	125	
209	Bi	1	2434719	3.86	2910000	**83.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\015SMPL.D\015SMPL.D#
Date Acquired: Sep 15 2011 04:17 pm Acq. Method: 00He_ALL.M
Sample Name: 5000 PPB LDR STD Vial Number: 1201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**5367.000**	ug/l	5,367.00	2.3	900	6	A	Fail
23	**Na**	1	**21.010**	ug/l	21.01	59.2	450000	6	P	
24	**Mg**	1	**14.210**	ug/l	14.21	34.1	450000	6	P	
27	**Al**	1	**11.830**	ug/l	11.83	35.8	450000	6	P	
31	**P**	1	**9.994**	ug/l	9.99	47.9	450000	6	P	
39	**K**	1	**8.237**	ug/l	8.24	78.1	450000	45	P	
44	**Ca**	1	**-4933.000**	ug/l	-4,933.00	1.8	450000	45	P	
47	**Ti**	1	**5226.000**	ug/l	5,226.00	1.1	4500	45	A	Fail
51	**V**	1	**4996.000**	ug/l	4,996.00	0.7	4500	45	A	Fail
52	**Cr**	1	**5000.000**	ug/l	5,000.00	0.8	4500	45	A	Fail
55	**Mn**	1	**4997.000**	ug/l	4,997.00	1.2	4500	45	A	Fail
57	**Fe**	1	**33.580**	ug/l	33.58	27.7	450000	74	P	
59	**Co**	1	**4936.000**	ug/l	4,936.00	1.1	4500	45	A	Fail
60	**Ni**	1	**5211.000**	ug/l	5,211.00	0.4	4500	45	A	Fail
63	**Cu**	1	**5238.000**	ug/l	5,238.00	1.3	4500	45	A	Fail
66	**Zn**	1	**5051.000**	ug/l	5,051.00	1.3	4500	74	A	Fail
75	**As**	1	**5294.000**	ug/l	5,294.00	0.7	4500	45	A	Fail
78	**Se**	1	**5135.000**	ug/l	5,135.00	1.5	4500	45	P	Fail
88	**Sr**	1	**5215.000**	ug/l	5,215.00	0.6	4500	45	A	Fail
95	**Mo**	1	**5118.000**	ug/l	5,118.00	2.8	4500	74	A	Fail
109	**Ag**	1	**0.028**	ug/l	0.03	16.0	4500	103	P	
111	**Cd**	1	**5098.000**	ug/l	5,098.00	1.6	4500	103	A	Fail
118	**Sn**	1	**5159.000**	ug/l	5,159.00	2.3	4500	103	A	Fail
123	**Sb**	1	**0.178**	ug/l	0.18	6.2	4500	103	P	
135	**Ba**	1	**5054.000**	ug/l	5,054.00	2.0	4500	103	A	Fail
200	**Hg**	1	**48.420**	ug/l	48.42	2.0	45	209	P	Fail
205	**Tl**	1	**0.255**	ug/l	0.25	5.0	4500	165	P	
208	**Pb**	1	**5027.000**	ug/l	5,027.00	1.4	4500	209	A	Fail
238	**U**	1	**5051.000**	ug/l	5,051.00	1.8	4500	209	A	Fail

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80222	1.37	81580	**98.3**	30	-	125	
45	Sc	1	1483845	0.93	1568000	**94.6**	30	-	125	
74	Ge	1	3692846	1.09	3965000	**93.1**	30	-	125	
103	Rh	1	5192258	1.52	5756000	**90.2**	30	-	125	
165	Ho	1	2570891	1.57	2702000	**95.1**	30	-	125	
175	Lu	1	2213511	1.45	2349000	**94.2**	30	-	125	
209	Bi	1	2674379	1.22	2910000	**91.9**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

19 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\016SMPL.D\016SMPL.D#
Date Acquired: Sep 15 2011 04:21 pm Acq. Method: 00He_ALL.M
Sample Name: 250 PPM (Al) Vial Number: 1204
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.636**	ug/l	0.64	46.2	900	6	P	
23	**Na**	1	**-2.217**	ug/l	-2.22	53.2	450000	6	P	
24	**Mg**	1	**0.718**	ug/l	0.72	19.7	450000	6	P	
27	**Al**	1	**261000.000**	ug/l	261,000.00	0.7	450000	6	A	
31	**P**	1	**1.693**	ug/l	1.69	98.6	450000	6	P	
39	**K**	1	**3.720**	ug/l	3.72	60.9	450000	45	P	
44	**Ca**	1	**15.790**	ug/l	15.79	6.2	450000	45	P	
47	**Ti**	1	**1.763**	ug/l	1.76	16.8	4500	45	P	
51	**V**	1	**0.136**	ug/l	0.14	201.2	4500	45	P	
52	**Cr**	1	**0.409**	ug/l	0.41	78.0	4500	45	P	
55	**Mn**	1	**0.431**	ug/l	0.43	67.7	4500	45	P	
57	**Fe**	1	**4.243**	ug/l	4.24	15.5	450000	74	P	
59	**Co**	1	**0.371**	ug/l	0.37	78.7	4500	45	P	
60	**Ni**	1	**0.600**	ug/l	0.60	46.6	4500	45	P	
63	**Cu**	1	**0.548**	ug/l	0.55	56.0	4500	45	P	
66	**Zn**	1	**1.220**	ug/l	1.22	21.1	4500	74	P	
75	**As**	1	**0.562**	ug/l	0.56	51.1	4500	45	P	
78	**Se**	1	**0.507**	ug/l	0.51	57.0	4500	45	P	
88	**Sr**	1	**0.367**	ug/l	0.37	72.5	4500	45	P	
95	**Mo**	1	**6.103**	ug/l	6.10	14.6	4500	74	P	
109	**Ag**	1	**0.005**	ug/l	0.00	40.0	4500	103	P	
111	**Cd**	1	**0.475**	ug/l	0.48	78.8	4500	103	P	
118	**Sn**	1	**6.696**	ug/l	6.70	10.0	4500	103	P	
123	**Sb**	1	**0.022**	ug/l	0.02	10.6	4500	103	P	
135	**Ba**	1	**1.024**	ug/l	1.02	21.3	4500	103	P	
200	**Hg**	1	**0.260**	ug/l	0.26	3.4	45	209	P	
205	**Tl**	1	**0.058**	ug/l	0.06	6.8	4500	165	P	
208	**Pb**	1	**0.527**	ug/l	0.53	54.7	4500	209	P	
238	**U**	1	**0.919**	ug/l	0.92	31.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	84000	0.30	81580	**103.0**	30	-	125	
45	Sc	1	1611362	2.18	1568000	**102.8**	30	-	125	
74	Ge	1	3825994	0.20	3965000	**96.5**	30	-	125	
103	Rh	1	5133263	0.28	5756000	**89.2**	30	-	125	
165	Ho	1	2543176	1.50	2702000	**94.1**	30	-	125	
175	Lu	1	2213976	0.86	2349000	**94.3**	30	-	125	
209	Bi	1	2545931	3.35	2910000	**87.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\017SMPL.D\017SMPL.D#
Date Acquired: Sep 15 2011 04:25 pm Acq. Method: 00He_ALL.M
Sample Name: 250 PPM (Ca, Fe, Mg, K, P, Na) Vial Number: 1205
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.582**	ug/l	0.58	12.9	900	6	P	
23	**Na**	1	**232000.000**	ug/l	232,000.00	1.0	450000	6	A	
24	**Mg**	1	**230000.000**	ug/l	230,000.00	0.3	450000	6	A	
27	**Al**	1	**161.900**	ug/l	161.90	19.8	450000	6	P	
31	**P**	1	**235700.000**	ug/l	235,700.00	2.0	450000	6	A	
39	**K**	1	**247000.000**	ug/l	247,000.00	1.0	450000	45	A	
44	**Ca**	1	**243700.000**	ug/l	243,700.00	0.7	450000	45	A	
47	**Ti**	1	**62.490**	ug/l	62.49	2.2	4500	45	P	
51	**V**	1	**0.447**	ug/l	0.45	22.4	4500	45	P	
52	**Cr**	1	**2.870**	ug/l	2.87	7.6	4500	45	P	
55	**Mn**	1	**15.060**	ug/l	15.06	2.5	4500	45	P	
57	**Fe**	1	**255400.000**	ug/l	255,400.00	0.7	450000	74	A	
59	**Co**	1	**3.587**	ug/l	3.59	4.6	4500	45	P	
60	**Ni**	1	**4.323**	ug/l	4.32	5.2	4500	45	P	
63	**Cu**	1	**1.561**	ug/l	1.56	6.8	4500	45	P	
66	**Zn**	1	**3.237**	ug/l	3.24	7.5	4500	74	P	
75	**As**	1	**1.119**	ug/l	1.12	13.3	4500	45	P	
78	**Se**	1	**0.445**	ug/l	0.45	48.4	4500	45	P	
88	**Sr**	1	**-11.390**	ug/l	-11.39	0.4	4500	45	P	
95	**Mo**	1	**2.545**	ug/l	2.55	7.7	4500	74	P	
109	**Ag**	1	**0.045**	ug/l	0.04	7.2	4500	103	P	
111	**Cd**	1	**1.129**	ug/l	1.13	17.5	4500	103	P	
118	**Sn**	1	**2.164**	ug/l	2.16	2.8	4500	103	P	
123	**Sb**	1	**1.130**	ug/l	1.13	2.6	4500	103	P	
135	**Ba**	1	**1.565**	ug/l	1.57	16.5	4500	103	P	
200	**Hg**	1	**0.232**	ug/l	0.23	2.8	45	209	P	
205	**Tl**	1	**0.053**	ug/l	0.05	15.7	4500	165	P	
208	**Pb**	1	**1.081**	ug/l	1.08	9.9	4500	209	P	
238	**U**	1	**0.558**	ug/l	0.56	20.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	89782	0.98	81580	**110.1**	30	-	125	
45	Sc	1	1542574	2.32	1568000	**98.4**	30	-	125	
74	Ge	1	3349538	0.88	3965000	**84.5**	30	-	125	
103	Rh	1	4281036	1.07	5756000	**74.4**	30	-	125	
165	Ho	1	2177720	1.22	2702000	**80.6**	30	-	125	
175	Lu	1	1843373	0.67	2349000	**78.5**	30	-	125	
209	Bi	1	2016609	1.09	2910000	**69.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\022SMPL.D\022SMPL.D#
Date Acquired: Sep 15 2011 04:47 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.900**	ug/l	51.90	1.8	900	6	P	
23	**Na**	1	**5081.000**	ug/l	5,081.00	2.2	450000	6	A	
24	**Mg**	1	**5067.000**	ug/l	5,067.00	2.2	450000	6	A	
27	**Al**	1	**522.800**	ug/l	522.80	2.3	450000	6	P	
31	**P**	1	**4997.000**	ug/l	4,997.00	1.1	450000	6	P	
39	**K**	1	**4986.000**	ug/l	4,986.00	2.2	450000	45	A	
44	**Ca**	1	**4998.000**	ug/l	4,998.00	1.8	450000	45	P	
47	**Ti**	1	**50.060**	ug/l	50.06	2.4	4500	45	P	
51	**V**	1	**50.400**	ug/l	50.40	2.7	4500	45	P	
52	**Cr**	1	**50.200**	ug/l	50.20	2.0	4500	45	P	
55	**Mn**	1	**50.630**	ug/l	50.63	2.2	4500	45	P	
57	**Fe**	1	**5162.000**	ug/l	5,162.00	2.1	450000	74	A	
59	**Co**	1	**49.000**	ug/l	49.00	3.1	4500	45	P	
60	**Ni**	1	**51.060**	ug/l	51.06	2.7	4500	45	P	
63	**Cu**	1	**51.500**	ug/l	51.50	3.8	4500	45	P	
66	**Zn**	1	**50.120**	ug/l	50.12	0.3	4500	74	P	
75	**As**	1	**50.900**	ug/l	50.90	3.3	4500	45	P	
78	**Se**	1	**50.610**	ug/l	50.61	3.4	4500	45	P	
88	**Sr**	1	**50.980**	ug/l	50.98	2.5	4500	45	P	
95	**Mo**	1	**50.060**	ug/l	50.06	1.3	4500	74	P	
109	**Ag**	1	**48.200**	ug/l	48.20	0.9	4500	103	P	
111	**Cd**	1	**49.370**	ug/l	49.37	0.7	4500	103	P	
118	**Sn**	1	**49.020**	ug/l	49.02	1.7	4500	103	P	
123	**Sb**	1	**49.400**	ug/l	49.40	0.7	4500	103	P	
135	**Ba**	1	**49.310**	ug/l	49.31	0.4	4500	103	P	
200	**Hg**	1	**2.480**	ug/l	2.48	1.1	45	209	P	
205	**Tl**	1	**49.680**	ug/l	49.68	4.2	4500	165	A	
208	**Pb**	1	**48.570**	ug/l	48.57	0.8	4500	209	P	
238	**U**	1	**49.300**	ug/l	49.30	0.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80935	1.10	81580	**99.2**	30	-	125	
45	Sc	1	1564551	2.97	1568000	**99.8**	30	-	125	
74	Ge	1	3879845	0.43	3965000	**97.9**	30	-	125	
103	Rh	1	5432573	0.47	5756000	**94.4**	30	-	125	
165	Ho	1	2663729	0.42	2702000	**98.6**	30	-	125	
175	Lu	1	2265302	0.58	2349000	**96.4**	30	-	125	
209	Bi	1	2769463	0.37	2910000	**95.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\023SMPL.D\023SMPL.D#
Date Acquired: Sep 15 2011 04:52 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.059**	ug/l	0.06	39.9	900	6	P	
23	**Na**	1	**1.894**	ug/l	1.89	159.5	450000	6	P	
24	**Mg**	1	**1.765**	ug/l	1.77	24.5	450000	6	P	
27	**Al**	1	**0.263**	ug/l	0.26	55.0	450000	6	P	
31	**P**	1	**2.102**	ug/l	2.10	86.1	450000	6	P	
39	**K**	1	**3.583**	ug/l	3.58	134.6	450000	45	P	
44	**Ca**	1	**1.730**	ug/l	1.73	56.8	450000	45	P	
47	**Ti**	1	**0.089**	ug/l	0.09	23.7	4500	45	P	
51	**V**	1	**-0.238**	ug/l	-0.24	3.4	4500	45	P	
52	**Cr**	1	**0.009**	ug/l	0.01	48.3	4500	45	P	
55	**Mn**	1	**0.017**	ug/l	0.02	21.2	4500	45	P	
57	**Fe**	1	**2.545**	ug/l	2.55	10.1	450000	74	P	
59	**Co**	1	**0.011**	ug/l	0.01	39.6	4500	45	P	
60	**Ni**	1	**0.019**	ug/l	0.02	96.6	4500	45	P	
63	**Cu**	1	**0.022**	ug/l	0.02	104.4	4500	45	P	
66	**Zn**	1	**0.023**	ug/l	0.02	95.2	4500	74	P	
75	**As**	1	**0.005**	ug/l	0.00	332.8	4500	45	P	
78	**Se**	1	**0.062**	ug/l	0.06	73.9	4500	45	P	
88	**Sr**	1	**0.010**	ug/l	0.01	89.9	4500	45	P	
95	**Mo**	1	**0.182**	ug/l	0.18	9.6	4500	74	P	
109	**Ag**	1	**0.010**	ug/l	0.01	49.5	4500	103	P	
111	**Cd**	1	**0.017**	ug/l	0.02	15.6	4500	103	P	
118	**Sn**	1	**0.401**	ug/l	0.40	9.8	4500	103	P	
123	**Sb**	1	**0.047**	ug/l	0.05	11.1	4500	103	P	
135	**Ba**	1	**0.011**	ug/l	0.01	113.8	4500	103	P	
200	**Hg**	1	**0.051**	ug/l	0.05	11.1	45	209	P	
205	**Tl**	1	**0.227**	ug/l	0.23	8.0	4500	165	P	
208	**Pb**	1	**0.015**	ug/l	0.02	94.6	4500	209	P	
238	**U**	1	**0.030**	ug/l	0.03	4.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	81274	1.61	81580	**99.6**	30	-	125	
45	Sc	1	1575909	2.63	1568000	**100.5**	30	-	125	
74	Ge	1	3906263	1.28	3965000	**98.5**	30	-	125	
103	Rh	1	5599217	0.71	5756000	**97.3**	30	-	125	
165	Ho	1	2679304	0.68	2702000	**99.2**	30	-	125	
175	Lu	1	2341649	1.39	2349000	**99.7**	30	-	125	
209	Bi	1	2845907	0.82	2910000	**97.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\024SMPL.D\024SMPL.D#
Date Acquired: Sep 15 2011 04:56 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-95157/1-B Vial Number: 2101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.063**	ug/l	0.63	17.6	900	6	P	
23	**Na**	1	**5.481**	ug/l	54.81	46.3	450000	6	P	
24	**Mg**	1	**1.023**	ug/l	10.23	12.2	450000	6	P	
27	**Al**	1	**1.562**	ug/l	15.62	17.5	450000	6	P	
31	**P**	1	**1.213**	ug/l	12.13	171.3	450000	6	P	
39	**K**	1	**0.773**	ug/l	7.73	352.0	450000	45	P	
44	**Ca**	1	**0.936**	ug/l	9.36	21.4	450000	45	P	
47	**Ti**	1	**0.041**	ug/l	0.41	28.6	4500	45	P	
51	**V**	1	**-0.188**	ug/l	-1.88	19.0	4500	45	P	
52	**Cr**	1	**0.004**	ug/l	0.04	203.1	4500	45	P	
55	**Mn**	1	**0.020**	ug/l	0.20	16.7	4500	45	P	
57	**Fe**	1	**1.219**	ug/l	12.19	28.6	450000	74	P	
59	**Co**	1	**0.003**	ug/l	0.03	44.9	4500	45	P	
60	**Ni**	1	**0.079**	ug/l	0.79	21.4	4500	45	P	
63	**Cu**	1	**0.031**	ug/l	0.31	85.0	4500	45	P	
66	**Zn**	1	**0.186**	ug/l	1.86	23.3	4500	74	P	
75	**As**	1	**0.012**	ug/l	0.12	222.7	4500	45	P	
78	**Se**	1	**-0.085**	ug/l	-0.85	48.2	4500	45	P	
88	**Sr**	1	**0.011**	ug/l	0.11	82.7	4500	45	P	
95	**Mo**	1	**0.101**	ug/l	1.01	36.7	4500	74	P	
109	**Ag**	1	**0.003**	ug/l	0.03	34.9	4500	103	P	
111	**Cd**	1	**0.006**	ug/l	0.06	168.6	4500	103	P	
118	**Sn**	1	**0.268**	ug/l	2.68	9.6	4500	103	P	
123	**Sb**	1	**0.012**	ug/l	0.12	32.2	4500	103	P	
135	**Ba**	1	**0.028**	ug/l	0.28	51.7	4500	103	P	
200	**Hg**	1	**0.025**	ug/l	0.25	16.1	45	209	P	
205	**Tl**	1	**0.053**	ug/l	0.53	19.9	4500	165	P	
208	**Pb**	1	**0.111**	ug/l	1.11	7.2	4500	209	P	
238	**U**	1	**0.011**	ug/l	0.11	26.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79926	2.33	81580	**98.0**	30	-	125	
45	Sc	1	1612685	1.90	1568000	**102.8**	30	-	125	
74	Ge	1	3895843	0.14	3965000	**98.3**	30	-	125	
103	Rh	1	5630997	0.58	5756000	**97.8**	30	-	125	
165	Ho	1	2706215	1.03	2702000	**100.2**	30	-	125	
175	Lu	1	2342858	0.89	2349000	**99.7**	30	-	125	
209	Bi	1	2865478	0.71	2910000	**98.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\025SMPL.D\025SMPL.D#
Date Acquired: Sep 15 2011 05:00 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-3-H SD Vial Number: 2102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.047**	ug/l	2.33	29.5	900	6	P	
23	**Na**	1	**22910.000**	ug/l	1,145,500.00	0.9	450000	6	A	
24	**Mg**	1	**380.000**	ug/l	19,000.00	1.1	450000	6	P	
27	**Al**	1	**16.470**	ug/l	823.50	2.0	450000	6	P	
31	**P**	1	**1.443**	ug/l	72.15	34.7	450000	6	P	
39	**K**	1	**161.700**	ug/l	8,085.00	5.5	450000	45	P	
44	**Ca**	1	**5290.000**	ug/l	264,500.00	2.9	450000	45	P	
47	**Ti**	1	**0.270**	ug/l	13.48	5.4	4500	45	P	
51	**V**	1	**-0.137**	ug/l	-6.85	43.9	4500	45	P	
52	**Cr**	1	**0.055**	ug/l	2.76	9.8	4500	45	P	
55	**Mn**	1	**126.400**	ug/l	6,320.00	2.6	4500	45	P	
57	**Fe**	1	**55.890**	ug/l	2,794.50	0.8	450000	74	P	
59	**Co**	1	**0.592**	ug/l	29.59	4.8	4500	45	P	
60	**Ni**	1	**0.179**	ug/l	8.94	12.1	4500	45	P	
63	**Cu**	1	**0.125**	ug/l	6.26	9.3	4500	45	P	
66	**Zn**	1	**0.921**	ug/l	46.04	2.9	4500	74	P	
75	**As**	1	**0.927**	ug/l	46.36	3.2	4500	45	P	
78	**Se**	1	**-0.060**	ug/l	-2.98	148.7	4500	45	P	
88	**Sr**	1	**7.938**	ug/l	396.90	3.5	4500	45	P	
95	**Mo**	1	**0.079**	ug/l	3.95	17.2	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	855.0	4500	103	P	
111	**Cd**	1	**0.013**	ug/l	0.65	65.3	4500	103	P	
118	**Sn**	1	**0.246**	ug/l	12.28	10.6	4500	103	P	
123	**Sb**	1	**0.039**	ug/l	1.93	10.0	4500	103	P	
135	**Ba**	1	**11.690**	ug/l	584.50	1.0	4500	103	P	
200	**Hg**	1	**0.031**	ug/l	1.54	19.8	45	209	P	
205	**Tl**	1	**0.030**	ug/l	1.50	26.8	4500	165	P	
208	**Pb**	1	**0.044**	ug/l	2.18	14.7	4500	209	P	
238	**U**	1	**0.024**	ug/l	1.22	13.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79944	1.36	81580	**98.0**	30	-	125	
45	Sc	1	1605901	3.31	1568000	**102.4**	30	-	125	
74	Ge	1	3903961	1.28	3965000	**98.5**	30	-	125	
103	Rh	1	5415490	1.13	5756000	**94.1**	30	-	125	
165	Ho	1	2632915	1.25	2702000	**97.4**	30	-	125	
175	Lu	1	2307786	2.94	2349000	**98.2**	30	-	125	
209	Bi	1	2758397	1.89	2910000	**94.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\026SMPL.D\026SMPL.D#
Date Acquired: Sep 15 2011 05:05 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-3-H Vial Number: 2103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.062**	ug/l	0.62	12.4	900	6	P	
23	Na	1	**107100.000**	ug/l	1,071,000.00	1.0	450000	6	A	
24	Mg	1	**1762.000**	ug/l	17,620.00	1.1	450000	6	A	
27	Al	1	**79.100**	ug/l	791.00	2.4	450000	6	P	
31	P	1	**7.232**	ug/l	72.32	7.1	450000	6	P	
39	K	1	**816.200**	ug/l	8,162.00	1.5	450000	45	A	
44	Ca	1	**25960.000**	ug/l	259,600.00	1.5	450000	45	A	
47	Ti	1	**0.987**	ug/l	9.87	2.8	4500	45	P	
51	V	1	**0.059**	ug/l	0.59	12.1	4500	45	P	
52	Cr	1	**0.262**	ug/l	2.62	2.4	4500	45	P	
55	Mn	1	**590.400**	ug/l	5,904.00	1.3	4500	45	A	
57	Fe	1	**277.900**	ug/l	2,779.00	2.2	450000	74	P	
59	Co	1	**2.795**	ug/l	27.95	4.7	4500	45	P	
60	Ni	1	**0.899**	ug/l	8.99	2.2	4500	45	P	
63	Cu	1	**0.750**	ug/l	7.50	6.4	4500	45	P	
66	Zn	1	**3.947**	ug/l	39.47	4.1	4500	74	P	
75	As	1	**4.663**	ug/l	46.63	2.1	4500	45	P	
78	Se	1	**0.025**	ug/l	0.25	348.2	4500	45	P	
88	Sr	1	**37.930**	ug/l	379.30	2.5	4500	45	P	
95	Mo	1	**0.122**	ug/l	1.22	16.3	4500	74	P	
109	Ag	1	**0.001**	ug/l	0.01	196.2	4500	103	P	
111	Cd	1	**0.079**	ug/l	0.79	5.4	4500	103	P	
118	Sn	1	**0.249**	ug/l	2.49	9.2	4500	103	P	
123	Sb	1	**0.128**	ug/l	1.28	7.8	4500	103	P	
135	Ba	1	**59.610**	ug/l	596.10	1.0	4500	103	P	
200	Hg	1	**0.021**	ug/l	0.21	14.7	45	209	P	
205	Tl	1	**0.049**	ug/l	0.49	12.5	4500	165	P	
208	Pb	1	**0.205**	ug/l	2.05	6.3	4500	209	P	
238	U	1	**0.095**	ug/l	0.95	3.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	87700	0.40	81580	**107.5**	30	-	125	
45	Sc	1	1646485	2.71	1568000	**105.0**	30	-	125	
74	Ge	1	3894239	1.24	3965000	**98.2**	30	-	125	
103	Rh	1	5235989	1.90	5756000	**91.0**	30	-	125	
165	Ho	1	2623521	1.62	2702000	**97.1**	30	-	125	
175	Lu	1	2254939	2.27	2349000	**96.0**	30	-	125	
209	Bi	1	2591650	2.82	2910000	**89.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\027SMPL.D\027SMPL.D#
Date Acquired: Sep 15 2011 05:09 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-3-I DU Vial Number: 2104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.046**	ug/l	0.46	22.8	900	6	P	
23	**Na**	1	**106200.000**	ug/l	1,062,000.00	1.5	450000	6	A	
24	**Mg**	1	**1742.000**	ug/l	17,420.00	0.2	450000	6	A	
27	**Al**	1	**76.840**	ug/l	768.40	1.5	450000	6	P	
31	**P**	1	**5.015**	ug/l	50.15	13.7	450000	6	P	
39	**K**	1	**840.200**	ug/l	8,402.00	2.7	450000	45	A	
44	**Ca**	1	**26390.000**	ug/l	263,900.00	3.8	450000	45	A	
47	**Ti**	1	**0.966**	ug/l	9.66	12.5	4500	45	P	
51	**V**	1	**0.085**	ug/l	0.85	60.9	4500	45	P	
52	**Cr**	1	**0.271**	ug/l	2.71	3.0	4500	45	P	
55	**Mn**	1	**609.200**	ug/l	6,092.00	0.6	4500	45	A	
57	**Fe**	1	**284.800**	ug/l	2,848.00	1.6	450000	74	P	
59	**Co**	1	**2.878**	ug/l	28.78	1.6	4500	45	P	
60	**Ni**	1	**0.890**	ug/l	8.90	2.6	4500	45	P	
63	**Cu**	1	**0.761**	ug/l	7.61	1.9	4500	45	P	
66	**Zn**	1	**3.992**	ug/l	39.92	6.0	4500	74	P	
75	**As**	1	**4.685**	ug/l	46.85	3.7	4500	45	P	
78	**Se**	1	**0.072**	ug/l	0.72	147.8	4500	45	P	
88	**Sr**	1	**38.710**	ug/l	387.10	0.8	4500	45	P	
95	**Mo**	1	**0.109**	ug/l	1.09	13.4	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	-0.01	113.5	4500	103	P	
111	**Cd**	1	**0.077**	ug/l	0.77	14.7	4500	103	P	
118	**Sn**	1	**0.246**	ug/l	2.46	11.9	4500	103	P	
123	**Sb**	1	**0.134**	ug/l	1.34	0.4	4500	103	P	
135	**Ba**	1	**60.310**	ug/l	603.10	0.6	4500	103	P	
200	**Hg**	1	**0.018**	ug/l	0.18	30.0	45	209	P	
205	**Tl**	1	**0.046**	ug/l	0.46	25.0	4500	165	P	
208	**Pb**	1	**0.208**	ug/l	2.08	4.0	4500	209	P	
238	**U**	1	**0.097**	ug/l	0.97	6.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	90464	2.80	81580	**110.9**	30	-	125	
45	Sc	1	1627341	0.56	1568000	**103.8**	30	-	125	
74	Ge	1	3868879	1.83	3965000	**97.6**	30	-	125	
103	Rh	1	5133962	1.23	5756000	**89.2**	30	-	125	
165	Ho	1	2567728	1.13	2702000	**95.0**	30	-	125	
175	Lu	1	2257588	0.63	2349000	**96.1**	30	-	125	
209	Bi	1	2567876	0.77	2910000	**88.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\028SMPL.D\028SMPL.D#
Date Acquired: Sep 15 2011 05:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-3-J MS Vial Number: 2105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.193**	ug/l	109.65	0.8	900	6	P	
23	**Na**	1	**34330.000**	ug/l	1,716,500.00	2.0	450000	6	A	
24	**Mg**	1	**987.800**	ug/l	49,390.00	1.6	450000	6	A	
27	**Al**	1	**98.100**	ug/l	4,905.00	1.4	450000	6	P	
31	**P**	1	**433.500**	ug/l	21,675.00	3.9	450000	6	P	
39	**K**	1	**685.500**	ug/l	34,275.00	1.0	450000	45	A	
44	**Ca**	1	**8868.000**	ug/l	443,400.00	1.9	450000	45	P	
47	**Ti**	1	**100.800**	ug/l	5,040.00	1.2	4500	45	P	
51	**V**	1	**21.010**	ug/l	1,050.50	1.6	4500	45	P	
52	**Cr**	1	**8.340**	ug/l	417.00	2.8	4500	45	P	
55	**Mn**	1	**223.000**	ug/l	11,150.00	1.8	4500	45	A	
57	**Fe**	1	**560.800**	ug/l	28,040.00	1.0	450000	74	P	
59	**Co**	1	**20.830**	ug/l	1,041.50	2.8	4500	45	P	
60	**Ni**	1	**20.900**	ug/l	1,045.00	2.5	4500	45	P	
63	**Cu**	1	**10.650**	ug/l	532.50	1.5	4500	45	P	
66	**Zn**	1	**22.350**	ug/l	1,117.50	1.3	4500	74	P	
75	**As**	1	**86.820**	ug/l	4,341.00	2.6	4500	45	P	
78	**Se**	1	**83.270**	ug/l	4,163.50	2.3	4500	45	P	
88	**Sr**	1	**12.260**	ug/l	613.00	2.4	4500	45	P	
95	**Mo**	1	**104.300**	ug/l	5,215.00	0.7	4500	74	P	
109	**Ag**	1	**12.380**	ug/l	619.00	2.1	4500	103	P	
111	**Cd**	1	**2.203**	ug/l	110.15	2.1	4500	103	P	
118	**Sn**	1	**104.600**	ug/l	5,230.00	1.0	4500	103	P	
123	**Sb**	1	**64.540**	ug/l	3,227.00	1.3	4500	103	P	
135	**Ba**	1	**104.000**	ug/l	5,200.00	0.7	4500	103	P	
200	**Hg**	1	**1.078**	ug/l	53.90	2.5	45	209	P	
205	**Tl**	1	**82.680**	ug/l	4,134.00	2.4	4500	165	A	
208	**Pb**	1	**21.080**	ug/l	1,054.00	2.4	4500	209	P	
238	**U**	1	**0.031**	ug/l	1.57	4.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	88781	1.61	81580	**108.8**	30	-	125	
45	Sc	1	1646283	1.37	1568000	**105.0**	30	-	125	
74	Ge	1	3925761	1.38	3965000	**99.0**	30	-	125	
103	Rh	1	5301527	0.74	5756000	**92.1**	30	-	125	
165	Ho	1	2620289	3.27	2702000	**97.0**	30	-	125	
175	Lu	1	2251482	1.01	2349000	**95.8**	30	-	125	
209	Bi	1	2679479	0.98	2910000	**92.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\029SMPL.D\029SMPL.D#
Date Acquired: Sep 15 2011 05:18 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-3-K MSD Vial Number: 2106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.210**	ug/l	110.50	4.2	900	6	P	
23	**Na**	1	**34590.000**	ug/l	1,729,500.00	1.0	450000	6	A	
24	**Mg**	1	**994.800**	ug/l	49,740.00	0.8	450000	6	A	
27	**Al**	1	**99.190**	ug/l	4,959.50	2.0	450000	6	P	
31	**P**	1	**431.600**	ug/l	21,580.00	3.5	450000	6	P	
39	**K**	1	**711.200**	ug/l	35,560.00	2.4	450000	45	A	
44	**Ca**	1	**9077.000**	ug/l	453,850.00	0.3	450000	45	P	
47	**Ti**	1	**103.000**	ug/l	5,150.00	1.2	4500	45	P	
51	**V**	1	**21.230**	ug/l	1,061.50	0.9	4500	45	P	
52	**Cr**	1	**8.503**	ug/l	425.15	0.8	4500	45	P	
55	**Mn**	1	**226.800**	ug/l	11,340.00	0.7	4500	45	A	
57	**Fe**	1	**559.800**	ug/l	27,990.00	0.2	450000	74	P	
59	**Co**	1	**21.120**	ug/l	1,056.00	1.4	4500	45	P	
60	**Ni**	1	**21.180**	ug/l	1,059.00	1.7	4500	45	P	
63	**Cu**	1	**10.800**	ug/l	540.00	2.5	4500	45	P	
66	**Zn**	1	**22.500**	ug/l	1,125.00	2.3	4500	74	P	
75	**As**	1	**87.580**	ug/l	4,379.00	1.1	4500	45	P	
78	**Se**	1	**84.030**	ug/l	4,201.50	0.8	4500	45	P	
88	**Sr**	1	**12.390**	ug/l	619.50	1.0	4500	45	P	
95	**Mo**	1	**105.800**	ug/l	5,290.00	1.5	4500	74	P	
109	**Ag**	1	**12.520**	ug/l	626.00	2.8	4500	103	P	
111	**Cd**	1	**2.193**	ug/l	109.65	2.9	4500	103	P	
118	**Sn**	1	**106.500**	ug/l	5,325.00	2.6	4500	103	P	
123	**Sb**	1	**65.110**	ug/l	3,255.50	1.7	4500	103	P	
135	**Ba**	1	**106.000**	ug/l	5,300.00	1.4	4500	103	P	
200	**Hg**	1	**1.118**	ug/l	55.90	2.6	45	209	P	
205	**Tl**	1	**84.610**	ug/l	4,230.50	1.9	4500	165	A	
208	**Pb**	1	**21.520**	ug/l	1,076.00	1.7	4500	209	P	
238	**U**	1	**0.029**	ug/l	1.46	9.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	88252	1.04	81580	**108.2**	30	-	125	
45	Sc	1	1638106	1.26	1568000	**104.5**	30	-	125	
74	Ge	1	3928945	1.15	3965000	**99.1**	30	-	125	
103	Rh	1	5345293	2.02	5756000	**92.9**	30	-	125	
165	Ho	1	2646995	1.46	2702000	**98.0**	30	-	125	
175	Lu	1	2293432	2.52	2349000	**97.6**	30	-	125	
209	Bi	1	2680681	2.02	2910000	**92.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\030SMPL.D\030SMPL.D#
Date Acquired: Sep 15 2011 05:22 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-3-H PDS Vial Number: 2107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.241**	ug/l	112.05	5.3	900	6	P	
23	**Na**	1	**35430.000**	ug/l	1,771,500.00	1.1	450000	6	A	
24	**Mg**	1	**1026.000**	ug/l	51,300.00	2.3	450000	6	A	
27	**Al**	1	**100.500**	ug/l	5,025.00	1.7	450000	6	P	
31	**P**	1	**432.100**	ug/l	21,605.00	1.6	450000	6	P	
39	**K**	1	**721.800**	ug/l	36,090.00	2.7	450000	45	A	
44	**Ca**	1	**9268.000**	ug/l	463,400.00	3.0	450000	45	P	
47	**Ti**	1	**106.000**	ug/l	5,300.00	2.8	4500	45	P	
51	**V**	1	**22.140**	ug/l	1,107.00	3.0	4500	45	P	
52	**Cr**	1	**8.715**	ug/l	435.75	3.8	4500	45	P	
55	**Mn**	1	**235.500**	ug/l	11,775.00	3.1	4500	45	A	
57	**Fe**	1	**582.000**	ug/l	29,100.00	1.2	450000	74	P	
59	**Co**	1	**21.950**	ug/l	1,097.50	3.6	4500	45	P	
60	**Ni**	1	**22.000**	ug/l	1,100.00	4.6	4500	45	P	
63	**Cu**	1	**11.110**	ug/l	555.50	3.7	4500	45	P	
66	**Zn**	1	**23.220**	ug/l	1,161.00	1.9	4500	74	P	
75	**As**	1	**90.460**	ug/l	4,523.00	3.1	4500	45	P	
78	**Se**	1	**86.750**	ug/l	4,337.50	2.9	4500	45	P	
88	**Sr**	1	**12.780**	ug/l	639.00	3.4	4500	45	P	
95	**Mo**	1	**109.300**	ug/l	5,465.00	1.3	4500	74	P	
109	**Ag**	1	**12.740**	ug/l	637.00	1.4	4500	103	P	
111	**Cd**	1	**2.306**	ug/l	115.30	4.3	4500	103	P	
118	**Sn**	1	**110.100**	ug/l	5,505.00	2.1	4500	103	P	
123	**Sb**	1	**67.130**	ug/l	3,356.50	2.5	4500	103	P	
135	**Ba**	1	**108.100**	ug/l	5,405.00	1.4	4500	103	P	
200	**Hg**	1	**1.099**	ug/l	54.95	5.3	45	209	P	
205	**Tl**	1	**87.030**	ug/l	4,351.50	4.3	4500	165	A	
208	**Pb**	1	**22.120**	ug/l	1,106.00	2.9	4500	209	P	
238	**U**	1	**0.030**	ug/l	1.52	11.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	88543	0.97	81580	**108.5**	30	-	125	
45	Sc	1	1628380	2.88	1568000	**103.9**	30	-	125	
74	Ge	1	3868712	0.74	3965000	**97.6**	30	-	125	
103	Rh	1	5275585	1.34	5756000	**91.7**	30	-	125	
165	Ho	1	2609654	0.57	2702000	**96.6**	30	-	125	
175	Lu	1	2260399	1.82	2349000	**96.2**	30	-	125	
209	Bi	1	2669265	2.11	2910000	**91.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\031SMPL.D\031SMPL.D#
Date Acquired: Sep 15 2011 05:26 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95419/25-A Vial Number: 2108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.053**	ug/l	102.65	5.8	900	6	P	
23	**Na**	1	**417.100**	ug/l	20,855.00	4.9	450000	6	A	
24	**Mg**	1	**405.500**	ug/l	20,275.00	1.5	450000	6	P	
27	**Al**	1	**83.390**	ug/l	4,169.50	1.4	450000	6	P	
31	**P**	1	**378.100**	ug/l	18,905.00	0.9	450000	6	P	
39	**K**	1	**429.100**	ug/l	21,455.00	2.1	450000	45	P	
44	**Ca**	1	**427.100**	ug/l	21,355.00	2.4	450000	45	P	
47	**Ti**	1	**99.130**	ug/l	4,956.50	2.7	4500	45	P	
51	**V**	1	**20.500**	ug/l	1,025.00	2.3	4500	45	P	
52	**Cr**	1	**8.185**	ug/l	409.25	1.3	4500	45	P	
55	**Mn**	1	**20.610**	ug/l	1,030.50	2.2	4500	45	P	
57	**Fe**	1	**456.500**	ug/l	22,825.00	2.0	450000	74	P	
59	**Co**	1	**20.110**	ug/l	1,005.50	2.7	4500	45	P	
60	**Ni**	1	**20.780**	ug/l	1,039.00	2.4	4500	45	P	
63	**Cu**	1	**10.660**	ug/l	533.00	2.5	4500	45	P	
66	**Zn**	1	**21.620**	ug/l	1,081.00	2.9	4500	74	P	
75	**As**	1	**83.380**	ug/l	4,169.00	2.2	4500	45	P	
78	**Se**	1	**81.720**	ug/l	4,086.00	3.0	4500	45	P	
88	**Sr**	1	**0.008**	ug/l	0.39	106.7	4500	45	P	
95	**Mo**	1	**101.800**	ug/l	5,090.00	2.3	4500	74	P	
109	**Ag**	1	**12.120**	ug/l	606.00	1.6	4500	103	P	
111	**Cd**	1	**2.075**	ug/l	103.75	4.9	4500	103	P	
118	**Sn**	1	**101.800**	ug/l	5,090.00	2.0	4500	103	P	
123	**Sb**	1	**58.950**	ug/l	2,947.50	1.7	4500	103	P	
135	**Ba**	1	**80.400**	ug/l	4,020.00	0.7	4500	103	P	
200	**Hg**	1	**1.000**	ug/l	50.00	1.3	45	209	P	
205	**Tl**	1	**80.600**	ug/l	4,030.00	3.0	4500	165	A	
208	**Pb**	1	**19.920**	ug/l	996.00	0.8	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.10	28.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	89903	1.89	81580	**110.2**	30	-	125	
45	Sc	1	1626406	2.28	1568000	**103.7**	30	-	125	
74	Ge	1	3954087	1.84	3965000	**99.7**	30	-	125	
103	Rh	1	5537663	1.38	5756000	**96.2**	30	-	125	
165	Ho	1	2692394	2.21	2702000	**99.6**	30	-	125	
175	Lu	1	2311742	1.45	2349000	**98.4**	30	-	125	
209	Bi	1	2864138	0.43	2910000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\032SMPL.D\032SMPL.D#
Date Acquired: Sep 15 2011 05:31 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95419/26-A Vial Number: 2109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.089**	ug/l	104.45	6.7	900	6	P	
23	**Na**	1	**411.500**	ug/l	20,575.00	0.2	450000	6	A	
24	**Mg**	1	**412.600**	ug/l	20,630.00	1.1	450000	6	P	
27	**Al**	1	**85.700**	ug/l	4,285.00	1.3	450000	6	P	
31	**P**	1	**390.600**	ug/l	19,530.00	1.1	450000	6	P	
39	**K**	1	**416.000**	ug/l	20,800.00	0.5	450000	45	P	
44	**Ca**	1	**417.100**	ug/l	20,855.00	1.3	450000	45	P	
47	**Ti**	1	**99.020**	ug/l	4,951.00	1.2	4500	45	P	
51	**V**	1	**19.980**	ug/l	999.00	0.8	4500	45	P	
52	**Cr**	1	**8.132**	ug/l	406.60	0.8	4500	45	P	
55	**Mn**	1	**20.430**	ug/l	1,021.50	1.3	4500	45	P	
57	**Fe**	1	**448.800**	ug/l	22,440.00	1.2	450000	74	P	
59	**Co**	1	**19.840**	ug/l	992.00	1.6	4500	45	P	
60	**Ni**	1	**20.540**	ug/l	1,027.00	1.4	4500	45	P	
63	**Cu**	1	**10.650**	ug/l	532.50	2.2	4500	45	P	
66	**Zn**	1	**21.060**	ug/l	1,053.00	1.1	4500	74	P	
75	**As**	1	**83.550**	ug/l	4,177.50	1.4	4500	45	P	
78	**Se**	1	**81.400**	ug/l	4,070.00	1.8	4500	45	P	
88	**Sr**	1	**0.103**	ug/l	5.14	4.7	4500	45	P	
95	**Mo**	1	**101.300**	ug/l	5,065.00	1.4	4500	74	P	
109	**Ag**	1	**12.070**	ug/l	603.50	2.0	4500	103	P	
111	**Cd**	1	**1.993**	ug/l	99.65	4.7	4500	103	P	
118	**Sn**	1	**100.900**	ug/l	5,045.00	2.2	4500	103	P	
123	**Sb**	1	**58.120**	ug/l	2,906.00	1.8	4500	103	P	
135	**Ba**	1	**79.050**	ug/l	3,952.50	2.0	4500	103	P	
200	**Hg**	1	**0.997**	ug/l	49.86	1.2	45	209	P	
205	**Tl**	1	**80.420**	ug/l	4,021.00	2.4	4500	165	A	
208	**Pb**	1	**20.010**	ug/l	1,000.50	1.6	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.12	9.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	85508	1.13	81580	**104.8**	30	-	125	
45	Sc	1	1598276	1.50	1568000	**101.9**	30	-	125	
74	Ge	1	3937144	0.67	3965000	**99.3**	30	-	125	
103	Rh	1	5565856	1.51	5756000	**96.7**	30	-	125	
165	Ho	1	2678957	1.42	2702000	**99.1**	30	-	125	
175	Lu	1	2285203	1.33	2349000	**97.3**	30	-	125	
209	Bi	1	2839954	1.29	2910000	**97.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\033SMPL.D\033SMPL.D#
Date Acquired: Sep 15 2011 05:35 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**50.670**	ug/l	50.67	0.5	900	6	P	
23	Na	1	**4901.000**	ug/l	4,901.00	0.5	450000	6	A	
24	Mg	1	**4933.000**	ug/l	4,933.00	1.1	450000	6	A	
27	Al	1	**506.400**	ug/l	506.40	0.6	450000	6	P	
31	P	1	**4854.000**	ug/l	4,854.00	0.5	450000	6	P	
39	K	1	**4880.000**	ug/l	4,880.00	1.4	450000	45	A	
44	Ca	1	**4954.000**	ug/l	4,954.00	0.5	450000	45	P	
47	Ti	1	**49.110**	ug/l	49.11	1.3	4500	45	P	
51	V	1	**48.820**	ug/l	48.82	0.2	4500	45	P	
52	Cr	1	**48.670**	ug/l	48.67	0.3	4500	45	P	
55	Mn	1	**48.790**	ug/l	48.79	0.7	4500	45	P	
57	Fe	1	**5180.000**	ug/l	5,180.00	1.2	450000	74	A	
59	Co	1	**47.580**	ug/l	47.58	1.1	4500	45	P	
60	Ni	1	**49.380**	ug/l	49.38	1.2	4500	45	P	
63	Cu	1	**49.640**	ug/l	49.64	0.4	4500	45	P	
66	Zn	1	**50.050**	ug/l	50.05	0.7	4500	74	P	
75	As	1	**49.430**	ug/l	49.43	1.1	4500	45	P	
78	Se	1	**49.230**	ug/l	49.23	1.3	4500	45	P	
88	Sr	1	**49.160**	ug/l	49.16	0.3	4500	45	P	
95	Mo	1	**49.450**	ug/l	49.45	0.9	4500	74	P	
109	Ag	1	**47.680**	ug/l	47.68	1.1	4500	103	P	
111	Cd	1	**48.660**	ug/l	48.66	2.0	4500	103	P	
118	Sn	1	**49.450**	ug/l	49.45	1.2	4500	103	P	
123	Sb	1	**49.260**	ug/l	49.26	2.2	4500	103	P	
135	Ba	1	**48.650**	ug/l	48.65	3.2	4500	103	P	
200	Hg	1	**2.482**	ug/l	2.48	1.8	45	209	P	
205	Tl	1	**50.340**	ug/l	50.34	1.4	4500	165	A	
208	Pb	1	**48.700**	ug/l	48.70	1.8	4500	209	P	
238	U	1	**49.370**	ug/l	49.37	1.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	84304	0.69	81580	**103.3**	30	-	125	
45	Sc	1	1600389	0.88	1568000	**102.1**	30	-	125	
74	Ge	1	3855266	1.36	3965000	**97.2**	30	-	125	
103	Rh	1	5412278	2.18	5756000	**94.0**	30	-	125	
165	Ho	1	2631931	2.24	2702000	**97.4**	30	-	125	
175	Lu	1	2268460	1.86	2349000	**96.6**	30	-	125	
209	Bi	1	2718404	1.82	2910000	**93.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\034SMPL.D\034SMPL.D#
Date Acquired: Sep 15 2011 05:39 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.057**	ug/l	0.06	6.8	900	6	P	
23	Na	1	**-3.300**	ug/l	-3.30	6.4	450000	6	P	
24	Mg	1	**2.253**	ug/l	2.25	15.5	450000	6	P	
27	Al	1	**0.053**	ug/l	0.05	109.4	450000	6	P	
31	P	1	**1.666**	ug/l	1.67	60.7	450000	6	P	
39	K	1	**5.777**	ug/l	5.78	54.7	450000	45	P	
44	Ca	1	**2.701**	ug/l	2.70	6.0	450000	45	P	
47	Ti	1	**0.066**	ug/l	0.07	27.1	4500	45	P	
51	V	1	**-0.137**	ug/l	-0.14	18.3	4500	45	P	
52	Cr	1	**0.012**	ug/l	0.01	79.3	4500	45	P	
55	Mn	1	**0.034**	ug/l	0.03	17.0	4500	45	P	
57	Fe	1	**3.667**	ug/l	3.67	21.0	450000	74	P	
59	Co	1	**0.022**	ug/l	0.02	39.7	4500	45	P	
60	Ni	1	**0.044**	ug/l	0.04	34.2	4500	45	P	
63	Cu	1	**0.015**	ug/l	0.01	39.8	4500	45	P	
66	Zn	1	**0.045**	ug/l	0.04	79.7	4500	74	P	
75	As	1	**0.033**	ug/l	0.03	84.9	4500	45	P	
78	Se	1	**0.063**	ug/l	0.06	181.1	4500	45	P	
88	Sr	1	**0.029**	ug/l	0.03	11.3	4500	45	P	
95	Mo	1	**0.195**	ug/l	0.20	15.4	4500	74	P	
109	Ag	1	**0.018**	ug/l	0.02	22.4	4500	103	P	
111	Cd	1	**0.010**	ug/l	0.01	89.5	4500	103	P	
118	Sn	1	**0.414**	ug/l	0.41	10.3	4500	103	P	
123	Sb	1	**0.091**	ug/l	0.09	14.1	4500	103	P	
135	Ba	1	**0.027**	ug/l	0.03	13.7	4500	103	P	
200	Hg	1	**0.028**	ug/l	0.03	6.9	45	209	P	
205	Tl	1	**0.462**	ug/l	0.46	12.3	4500	165	P	
208	Pb	1	**0.023**	ug/l	0.02	59.5	4500	209	P	
238	U	1	**0.030**	ug/l	0.03	7.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	85420	0.30	81580	**104.7**	30	-	125	
45	Sc	1	1585112	2.34	1568000	**101.1**	30	-	125	
74	Ge	1	3915434	0.93	3965000	**98.7**	30	-	125	
103	Rh	1	5479876	1.25	5756000	**95.2**	30	-	125	
165	Ho	1	2630023	0.39	2702000	**97.3**	30	-	125	
175	Lu	1	2285459	0.99	2349000	**97.3**	30	-	125	
209	Bi	1	2815307	1.82	2910000	**96.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\035SMPL.D\035SMPL.D#
Date Acquired: Sep 15 2011 05:44 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-C-1-H Vial Number: 2201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.052**	ug/l	0.52	5.1	900	6	P	
23	**Na**	1	**169300.000**	ug/l	1,693,000.00	1.1	450000	6	A	
24	**Mg**	1	**1539.000**	ug/l	15,390.00	0.9	450000	6	A	
27	**Al**	1	**69.330**	ug/l	693.30	2.2	450000	6	P	
31	**P**	1	**4.943**	ug/l	49.43	82.9	450000	6	P	
39	**K**	1	**1008.000**	ug/l	10,080.00	1.3	450000	45	A	
44	**Ca**	1	**15590.000**	ug/l	155,900.00	5.5	450000	45	A	
47	**Ti**	1	**0.370**	ug/l	3.70	5.7	4500	45	P	
51	**V**	1	**-0.083**	ug/l	-0.83	40.4	4500	45	P	
52	**Cr**	1	**0.270**	ug/l	2.70	10.1	4500	45	P	
55	**Mn**	1	**726.700**	ug/l	7,267.00	1.3	4500	45	A	
57	**Fe**	1	**970.300**	ug/l	9,703.00	1.0	450000	74	P	
59	**Co**	1	**3.803**	ug/l	38.03	3.2	4500	45	P	
60	**Ni**	1	**1.116**	ug/l	11.16	2.5	4500	45	P	
63	**Cu**	1	**1.039**	ug/l	10.39	5.9	4500	45	P	
66	**Zn**	1	**9.059**	ug/l	90.59	0.8	4500	74	P	
75	**As**	1	**2.984**	ug/l	29.84	6.6	4500	45	P	
78	**Se**	1	**0.060**	ug/l	0.60	156.3	4500	45	P	
88	**Sr**	1	**46.180**	ug/l	461.80	3.0	4500	45	P	
95	**Mo**	1	**0.160**	ug/l	1.60	17.0	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.06	53.1	4500	103	P	
111	**Cd**	1	**0.051**	ug/l	0.51	19.7	4500	103	P	
118	**Sn**	1	**0.322**	ug/l	3.22	19.7	4500	103	P	
123	**Sb**	1	**0.360**	ug/l	3.60	9.0	4500	103	P	
135	**Ba**	1	**91.640**	ug/l	916.40	0.9	4500	103	P	
200	**Hg**	1	**0.021**	ug/l	0.21	12.7	45	209	P	
205	**Tl**	1	**0.278**	ug/l	2.78	10.5	4500	165	P	
208	**Pb**	1	**0.105**	ug/l	1.05	6.9	4500	209	P	
238	**U**	1	**0.251**	ug/l	2.51	1.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	90031	2.40	81580	**110.4**	30	-	125	
45	Sc	1	1628925	2.49	1568000	**103.9**	30	-	125	
74	Ge	1	3841808	0.15	3965000	**96.9**	30	-	125	
103	Rh	1	5005841	0.47	5756000	**87.0**	30	-	125	
165	Ho	1	2540141	1.62	2702000	**94.0**	30	-	125	
175	Lu	1	2212409	0.91	2349000	**94.2**	30	-	125	
209	Bi	1	2517313	1.60	2910000	**86.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\036SMPL.D\036SMPL.D#
Date Acquired: Sep 15 2011 05:48 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-B-2-L Vial Number: 2202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.042**	ug/l	0.42	32.8	900	6	P	
23	Na	1	**166700.000**	ug/l	1,667,000.00	3.8	450000	6	A	
24	Mg	1	**2650.000**	ug/l	26,500.00	1.4	450000	6	A	
27	Al	1	**73.780**	ug/l	737.80	3.9	450000	6	P	
31	P	1	**7.332**	ug/l	73.32	31.4	450000	6	P	
39	K	1	**1062.000**	ug/l	10,620.00	3.5	450000	45	A	
44	Ca	1	**39570.000**	ug/l	395,700.00	1.1	450000	45	A	
47	Ti	1	**0.434**	ug/l	4.34	20.5	4500	45	P	
51	V	1	**-0.174**	ug/l	-1.74	8.9	4500	45	P	
52	Cr	1	**0.271**	ug/l	2.71	9.7	4500	45	P	
55	Mn	1	**1136.000**	ug/l	11,360.00	3.5	4500	45	A	
57	Fe	1	**1223.000**	ug/l	12,230.00	1.3	450000	74	P	
59	Co	1	**4.609**	ug/l	46.09	3.5	4500	45	P	
60	Ni	1	**1.910**	ug/l	19.10	5.4	4500	45	P	
63	Cu	1	**0.435**	ug/l	4.35	9.0	4500	45	P	
66	Zn	1	**8.414**	ug/l	84.14	1.7	4500	74	P	
75	As	1	**5.619**	ug/l	56.19	7.3	4500	45	P	
78	Se	1	**0.037**	ug/l	0.37	180.3	4500	45	P	
88	Sr	1	**54.820**	ug/l	548.20	3.2	4500	45	P	
95	Mo	1	**0.093**	ug/l	0.93	23.8	4500	74	P	
109	Ag	1	**0.000**	ug/l	0.00	344.6	4500	103	P	
111	Cd	1	**0.079**	ug/l	0.79	16.5	4500	103	P	
118	Sn	1	**0.208**	ug/l	2.08	7.8	4500	103	P	
123	Sb	1	**0.222**	ug/l	2.22	1.9	4500	103	P	
135	Ba	1	**76.880**	ug/l	768.80	1.4	4500	103	P	
200	Hg	1	**0.015**	ug/l	0.15	22.5	45	209	P	
205	Tl	1	**0.174**	ug/l	1.74	12.8	4500	165	P	
208	Pb	1	**0.147**	ug/l	1.47	11.1	4500	209	P	
238	U	1	**0.193**	ug/l	1.93	3.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	88608	1.71	81580	**108.6**	30	-	125	
45	Sc	1	1611891	4.16	1568000	**102.8**	30	-	125	
74	Ge	1	3761286	2.22	3965000	**94.9**	30	-	125	
103	Rh	1	4953005	1.11	5756000	**86.0**	30	-	125	
165	Ho	1	2499816	0.50	2702000	**92.5**	30	-	125	
175	Lu	1	2174640	2.62	2349000	**92.6**	30	-	125	
209	Bi	1	2479413	2.51	2910000	**85.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\037SMPL.D\037SMPL.D#
Date Acquired: Sep 15 2011 05:53 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28372-B-4-H Vial Number: 2203
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.150**	ug/l	1.50	18.7	900	6	P	
23	**Na**	1	**167100.000**	ug/l	1,671,000.00	1.5	450000	6	A	
24	**Mg**	1	**3177.000**	ug/l	31,770.00	1.7	450000	6	A	
27	**Al**	1	**787.700**	ug/l	7,877.00	0.9	450000	6	P	
31	**P**	1	**86.070**	ug/l	860.70	4.0	450000	6	P	
39	**K**	1	**1260.000**	ug/l	12,600.00	4.0	450000	45	A	
44	**Ca**	1	**18070.000**	ug/l	180,700.00	1.4	450000	45	A	
47	**Ti**	1	**70.220**	ug/l	702.20	3.3	4500	45	P	
51	**V**	1	**6.578**	ug/l	65.78	3.3	4500	45	P	
52	**Cr**	1	**0.433**	ug/l	4.33	8.0	4500	45	P	
55	**Mn**	1	**3464.000**	ug/l	34,640.00	2.8	4500	45	A	
57	**Fe**	1	**721.300**	ug/l	7,213.00	0.8	450000	74	P	
59	**Co**	1	**5.051**	ug/l	50.51	3.8	4500	45	P	
60	**Ni**	1	**1.125**	ug/l	11.25	2.5	4500	45	P	
63	**Cu**	1	**27.950**	ug/l	279.50	4.0	4500	45	P	
66	**Zn**	1	**36.520**	ug/l	365.20	0.7	4500	74	P	
75	**As**	1	**0.749**	ug/l	7.49	0.6	4500	45	P	
78	**Se**	1	**0.017**	ug/l	0.17	90.9	4500	45	P	
88	**Sr**	1	**79.480**	ug/l	794.80	3.7	4500	45	P	
95	**Mo**	1	**0.174**	ug/l	1.74	5.8	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.02	30.3	4500	103	P	
111	**Cd**	1	**0.091**	ug/l	0.91	22.9	4500	103	P	
118	**Sn**	1	**0.197**	ug/l	1.97	19.2	4500	103	P	
123	**Sb**	1	**0.025**	ug/l	0.25	25.8	4500	103	P	
135	**Ba**	1	**143.900**	ug/l	1,439.00	1.8	4500	103	P	
200	**Hg**	1	**0.018**	ug/l	0.18	21.4	45	209	P	
205	**Tl**	1	**0.107**	ug/l	1.07	14.2	4500	165	P	
208	**Pb**	1	**1.686**	ug/l	16.86	2.2	4500	209	P	
238	**U**	1	**0.228**	ug/l	2.28	2.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	97247	1.32	81580	**119.2**	30	-	125	
45	Sc	1	1691324	4.36	1568000	**107.9**	30	-	125	
74	Ge	1	3809370	1.14	3965000	**96.1**	30	-	125	
103	Rh	1	5044921	2.08	5756000	**87.6**	30	-	125	
165	Ho	1	2552934	1.97	2702000	**94.5**	30	-	125	
175	Lu	1	2200246	0.33	2349000	**93.7**	30	-	125	
209	Bi	1	2498268	1.29	2910000	**85.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\038SMPL.D\038SMPL.D#
Date Acquired: Sep 15 2011 05:57 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28286-A-7-H Vial Number: 2204
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.037**	ug/l	0.37	10.6	900	6	P	
23	**Na**	1	**151100.000**	ug/l	1,511,000.00	0.8	450000	6	A	
24	**Mg**	1	**1297.000**	ug/l	12,970.00	1.4	450000	6	A	
27	**Al**	1	**236.900**	ug/l	2,369.00	0.8	450000	6	P	
31	**P**	1	**10.880**	ug/l	108.80	19.1	450000	6	P	
39	**K**	1	**1162.000**	ug/l	11,620.00	0.8	450000	45	A	
44	**Ca**	1	**7679.000**	ug/l	76,790.00	2.2	450000	45	P	
47	**Ti**	1	**11.070**	ug/l	110.70	4.5	4500	45	P	
51	**V**	1	**1.791**	ug/l	17.91	2.4	4500	45	P	
52	**Cr**	1	**0.698**	ug/l	6.98	3.2	4500	45	P	
55	**Mn**	1	**17.240**	ug/l	172.40	2.0	4500	45	P	
57	**Fe**	1	**121.400**	ug/l	1,214.00	1.8	450000	74	P	
59	**Co**	1	**0.145**	ug/l	1.45	7.0	4500	45	P	
60	**Ni**	1	**1.641**	ug/l	16.41	2.0	4500	45	P	
63	**Cu**	1	**2.352**	ug/l	23.52	5.2	4500	45	P	
66	**Zn**	1	**33.880**	ug/l	338.80	0.5	4500	74	P	
75	**As**	1	**0.301**	ug/l	3.01	4.0	4500	45	P	
78	**Se**	1	**-0.023**	ug/l	-0.23	581.9	4500	45	P	
88	**Sr**	1	**39.080**	ug/l	390.80	2.4	4500	45	P	
95	**Mo**	1	**0.100**	ug/l	1.00	9.9	4500	74	P	
109	**Ag**	1	**0.005**	ug/l	0.05	64.5	4500	103	P	
111	**Cd**	1	**0.178**	ug/l	1.78	8.2	4500	103	P	
118	**Sn**	1	**0.163**	ug/l	1.63	22.6	4500	103	P	
123	**Sb**	1	**0.029**	ug/l	0.29	35.8	4500	103	P	
135	**Ba**	1	**20.260**	ug/l	202.60	0.1	4500	103	P	
200	**Hg**	1	**0.015**	ug/l	0.15	54.9	45	209	P	
205	**Tl**	1	**0.067**	ug/l	0.67	22.8	4500	165	P	
208	**Pb**	1	**0.460**	ug/l	4.60	1.9	4500	209	P	
238	**U**	1	**0.481**	ug/l	4.81	2.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	99328	0.59	81580	**121.8**	30	-	125	
45	Sc	1	1673886	1.76	1568000	**106.8**	30	-	125	
74	Ge	1	3803306	0.39	3965000	**95.9**	30	-	125	
103	Rh	1	5111133	1.36	5756000	**88.8**	30	-	125	
165	Ho	1	2521823	0.04	2702000	**93.3**	30	-	125	
175	Lu	1	2191194	0.25	2349000	**93.3**	30	-	125	
209	Bi	1	2513481	0.81	2910000	**86.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\039SMPL.D\039SMPL.D#
Date Acquired: Sep 15 2011 06:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28286-B-8-E Vial Number: 2205
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.057**	ug/l	0.57	27.3	900	6	P	
23	**Na**	1	**150400.000**	ug/l	1,504,000.00	1.7	450000	6	A	
24	**Mg**	1	**1524.000**	ug/l	15,240.00	1.5	450000	6	A	
27	**Al**	1	**165.200**	ug/l	1,652.00	1.3	450000	6	P	
31	**P**	1	**19.250**	ug/l	192.50	5.5	450000	6	P	
39	**K**	1	**1213.000**	ug/l	12,130.00	3.7	450000	45	A	
44	**Ca**	1	**9631.000**	ug/l	96,310.00	2.1	450000	45	P	
47	**Ti**	1	**4.739**	ug/l	47.39	3.0	4500	45	P	
51	**V**	1	**1.929**	ug/l	19.29	1.6	4500	45	P	
52	**Cr**	1	**0.540**	ug/l	5.40	3.7	4500	45	P	
55	**Mn**	1	**4.767**	ug/l	47.67	3.1	4500	45	P	
57	**Fe**	1	**52.800**	ug/l	528.00	1.2	450000	74	P	
59	**Co**	1	**0.036**	ug/l	0.36	3.8	4500	45	P	
60	**Ni**	1	**0.318**	ug/l	3.18	8.3	4500	45	P	
63	**Cu**	1	**0.748**	ug/l	7.48	4.5	4500	45	P	
66	**Zn**	1	**2.341**	ug/l	23.41	3.0	4500	74	P	
75	**As**	1	**0.637**	ug/l	6.37	1.4	4500	45	P	
78	**Se**	1	**0.003**	ug/l	0.03	2877.9	4500	45	P	
88	**Sr**	1	**43.020**	ug/l	430.20	2.0	4500	45	P	
95	**Mo**	1	**0.071**	ug/l	0.71	7.8	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.02	31.7	4500	103	P	
111	**Cd**	1	**0.025**	ug/l	0.25	34.3	4500	103	P	
118	**Sn**	1	**0.130**	ug/l	1.30	13.4	4500	103	P	
123	**Sb**	1	**0.024**	ug/l	0.24	26.6	4500	103	P	
135	**Ba**	1	**33.340**	ug/l	333.40	1.2	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.10	68.3	45	209	P	
205	**Tl**	1	**0.046**	ug/l	0.46	29.7	4500	165	P	
208	**Pb**	1	**0.156**	ug/l	1.56	11.0	4500	209	P	
238	**U**	1	**0.404**	ug/l	4.04	1.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	100590	1.17	81580	**123.3**	30	-	125	
45	Sc	1	1680766	2.70	1568000	**107.2**	30	-	125	
74	Ge	1	3851760	0.30	3965000	**97.1**	30	-	125	
103	Rh	1	5059829	1.19	5756000	**87.9**	30	-	125	
165	Ho	1	2527404	0.90	2702000	**93.5**	30	-	125	
175	Lu	1	2186078	0.52	2349000	**93.1**	30	-	125	
209	Bi	1	2509119	0.41	2910000	**86.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\040SMPL.D\040SMPL.D#
Date Acquired: Sep 15 2011 06:06 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28286-B-9-E Vial Number: 2206
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.042**	ug/l	0.42	10.8	900	6	P	
23	**Na**	1	**155400.000**	ug/l	1,554,000.00	2.2	450000	6	A	
24	**Mg**	1	**1356.000**	ug/l	13,560.00	2.4	450000	6	A	
27	**Al**	1	**125.700**	ug/l	1,257.00	1.2	450000	6	P	
31	**P**	1	**22.220**	ug/l	222.20	12.7	450000	6	P	
39	**K**	1	**1226.000**	ug/l	12,260.00	1.3	450000	45	A	
44	**Ca**	1	**7757.000**	ug/l	77,570.00	1.5	450000	45	P	
47	**Ti**	1	**0.603**	ug/l	6.03	6.7	4500	45	P	
51	**V**	1	**1.858**	ug/l	18.58	1.3	4500	45	P	
52	**Cr**	1	**0.477**	ug/l	4.77	4.3	4500	45	P	
55	**Mn**	1	**4.013**	ug/l	40.13	2.1	4500	45	P	
57	**Fe**	1	**19.520**	ug/l	195.20	3.2	450000	74	P	
59	**Co**	1	**0.011**	ug/l	0.11	20.4	4500	45	P	
60	**Ni**	1	**0.353**	ug/l	3.53	11.9	4500	45	P	
63	**Cu**	1	**0.588**	ug/l	5.88	2.9	4500	45	P	
66	**Zn**	1	**2.029**	ug/l	20.29	1.9	4500	74	P	
75	**As**	1	**0.827**	ug/l	8.27	7.0	4500	45	P	
78	**Se**	1	**0.021**	ug/l	0.21	312.5	4500	45	P	
88	**Sr**	1	**41.040**	ug/l	410.40	2.5	4500	45	P	
95	**Mo**	1	**0.080**	ug/l	0.80	10.2	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	522.4	4500	103	P	
111	**Cd**	1	**0.016**	ug/l	0.16	81.5	4500	103	P	
118	**Sn**	1	**0.119**	ug/l	1.19	33.7	4500	103	P	
123	**Sb**	1	**0.017**	ug/l	0.17	9.7	4500	103	P	
135	**Ba**	1	**14.000**	ug/l	140.00	2.0	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.10	40.6	45	209	P	
205	**Tl**	1	**0.040**	ug/l	0.40	29.2	4500	165	P	
208	**Pb**	1	**0.055**	ug/l	0.55	12.9	4500	209	P	
238	**U**	1	**0.238**	ug/l	2.38	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101608	2.02	81580	**124.6**	30	-	125	
45	Sc	1	1690572	2.72	1568000	**107.8**	30	-	125	
74	Ge	1	3867916	0.32	3965000	**97.6**	30	-	125	
103	Rh	1	5114271	0.71	5756000	**88.9**	30	-	125	
165	Ho	1	2520449	1.70	2702000	**93.3**	30	-	125	
175	Lu	1	2186682	2.62	2349000	**93.1**	30	-	125	
209	Bi	1	2506517	2.48	2910000	**86.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\041SMPL.D\041SMPL.D#
Date Acquired: Sep 15 2011 06:10 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28224-B-1-G Vial Number: 2207
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.042**	ug/l	0.42	20.4	900	6	P	
23	**Na**	1	**159800.000**	ug/l	1,598,000.00	2.5	450000	6	A	
24	**Mg**	1	**1819.000**	ug/l	18,190.00	1.0	450000	6	A	
27	**Al**	1	**138.500**	ug/l	1,385.00	3.2	450000	6	P	
31	**P**	1	**21.320**	ug/l	213.20	8.9	450000	6	P	
39	**K**	1	**1054.000**	ug/l	10,540.00	2.2	450000	45	A	
44	**Ca**	1	**10490.000**	ug/l	104,900.00	2.2	450000	45	P	
47	**Ti**	1	**0.663**	ug/l	6.63	4.0	4500	45	P	
51	**V**	1	**0.407**	ug/l	4.07	3.2	4500	45	P	
52	**Cr**	1	**0.533**	ug/l	5.33	6.0	4500	45	P	
55	**Mn**	1	**180.200**	ug/l	1,802.00	1.2	4500	45	A	
57	**Fe**	1	**26.580**	ug/l	265.80	2.8	450000	74	P	
59	**Co**	1	**0.216**	ug/l	2.16	5.0	4500	45	P	
60	**Ni**	1	**1.432**	ug/l	14.32	4.6	4500	45	P	
63	**Cu**	1	**2.043**	ug/l	20.43	2.0	4500	45	P	
66	**Zn**	1	**2.952**	ug/l	29.52	4.1	4500	74	P	
75	**As**	1	**0.154**	ug/l	1.54	9.2	4500	45	P	
78	**Se**	1	**0.000**	ug/l	0.00	474460.0	4500	45	P	
88	**Sr**	1	**54.930**	ug/l	549.30	2.8	4500	45	P	
95	**Mo**	1	**0.074**	ug/l	0.74	12.5	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	507.9	4500	103	P	
111	**Cd**	1	**0.035**	ug/l	0.35	28.4	4500	103	P	
118	**Sn**	1	**0.110**	ug/l	1.10	11.3	4500	103	P	
123	**Sb**	1	**0.017**	ug/l	0.17	28.9	4500	103	P	
135	**Ba**	1	**48.750**	ug/l	487.50	0.3	4500	103	P	
200	**Hg**	1	**0.011**	ug/l	0.11	28.5	45	209	P	
205	**Tl**	1	**0.029**	ug/l	0.29	21.7	4500	165	P	
208	**Pb**	1	**0.106**	ug/l	1.06	22.9	4500	209	P	
238	**U**	1	**0.124**	ug/l	1.24	3.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101558	2.24	81580	**124.5**	30	-	125	
45	Sc	1	1663870	2.92	1568000	**106.1**	30	-	125	
74	Ge	1	3813607	1.50	3965000	**96.2**	30	-	125	
103	Rh	1	5078953	0.33	5756000	**88.2**	30	-	125	
165	Ho	1	2530517	1.97	2702000	**93.7**	30	-	125	
175	Lu	1	2162376	0.95	2349000	**92.1**	30	-	125	
209	Bi	1	2485535	2.29	2910000	**85.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\042SMPL.D\042SMPL.D#
Date Acquired: Sep 15 2011 06:14 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28224-A-2-F Vial Number: 2208
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.030**	ug/l	0.30	51.4	900	6	P	
23	**Na**	1	**152400.000**	ug/l	1,524,000.00	0.6	450000	6	A	
24	**Mg**	1	**2608.000**	ug/l	26,080.00	1.6	450000	6	A	
27	**Al**	1	**131.800**	ug/l	1,318.00	1.0	450000	6	P	
31	**P**	1	**57.750**	ug/l	577.50	5.4	450000	6	P	
39	**K**	1	**1085.000**	ug/l	10,850.00	2.4	450000	45	A	
44	**Ca**	1	**9384.000**	ug/l	93,840.00	2.4	450000	45	P	
47	**Ti**	1	**0.855**	ug/l	8.55	2.2	4500	45	P	
51	**V**	1	**0.587**	ug/l	5.87	7.8	4500	45	P	
52	**Cr**	1	**0.473**	ug/l	4.73	2.8	4500	45	P	
55	**Mn**	1	**1.371**	ug/l	13.71	0.9	4500	45	P	
57	**Fe**	1	**24.750**	ug/l	247.50	3.6	450000	74	P	
59	**Co**	1	**0.010**	ug/l	0.10	14.2	4500	45	P	
60	**Ni**	1	**0.143**	ug/l	1.43	9.4	4500	45	P	
63	**Cu**	1	**0.293**	ug/l	2.93	7.7	4500	45	P	
66	**Zn**	1	**1.341**	ug/l	13.41	3.4	4500	74	P	
75	**As**	1	**0.193**	ug/l	1.93	6.9	4500	45	P	
78	**Se**	1	**-0.129**	ug/l	-1.29	54.8	4500	45	P	
88	**Sr**	1	**51.930**	ug/l	519.30	1.3	4500	45	P	
95	**Mo**	1	**0.043**	ug/l	0.43	18.2	4500	74	P	
109	**Ag**	1	**0.004**	ug/l	0.04	86.1	4500	103	P	
111	**Cd**	1	**0.004**	ug/l	0.04	32.3	4500	103	P	
118	**Sn**	1	**0.088**	ug/l	0.88	28.0	4500	103	P	
123	**Sb**	1	**0.007**	ug/l	0.07	6.4	4500	103	P	
135	**Ba**	1	**26.630**	ug/l	266.30	0.4	4500	103	P	
200	**Hg**	1	**0.002**	ug/l	0.02	103.0	45	209	P	
205	**Tl**	1	**0.017**	ug/l	0.17	62.8	4500	165	P	
208	**Pb**	1	**0.036**	ug/l	0.36	6.3	4500	209	P	
238	**U**	1	**0.038**	ug/l	0.38	5.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	104250	1.78	81580	**127.8**	30	-	125	**IS Fail**
45	Sc	1	1714244	2.65	1568000	**109.3**	30	-	125	
74	Ge	1	3861769	1.23	3965000	**97.4**	30	-	125	
103	Rh	1	5063208	1.88	5756000	**88.0**	30	-	125	
165	Ho	1	2539450	3.80	2702000	**94.0**	30	-	125	
175	Lu	1	2214741	0.70	2349000	**94.3**	30	-	125	
209	Bi	1	2511145	1.59	2910000	**86.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Fail**

0 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\043SMPL.D\043SMPL.D#
Date Acquired: Sep 15 2011 06:19 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28224-A-3-E Vial Number: 2209
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.022**	ug/l	0.22	19.0	900	6	P	
23	**Na**	1	**157600.000**	ug/l	1,576,000.00	1.9	450000	6	A	
24	**Mg**	1	**2663.000**	ug/l	26,630.00	1.7	450000	6	A	
27	**Al**	1	**136.600**	ug/l	1,366.00	1.4	450000	6	P	
31	**P**	1	**62.800**	ug/l	628.00	11.5	450000	6	P	
39	**K**	1	**1186.000**	ug/l	11,860.00	1.7	450000	45	A	
44	**Ca**	1	**9481.000**	ug/l	94,810.00	1.6	450000	45	P	
47	**Ti**	1	**0.579**	ug/l	5.79	6.8	4500	45	P	
51	**V**	1	**0.666**	ug/l	6.66	2.9	4500	45	P	
52	**Cr**	1	**0.515**	ug/l	5.15	2.9	4500	45	P	
55	**Mn**	1	**0.858**	ug/l	8.58	0.7	4500	45	P	
57	**Fe**	1	**23.020**	ug/l	230.20	5.0	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.08	27.8	4500	45	P	
60	**Ni**	1	**0.136**	ug/l	1.36	13.8	4500	45	P	
63	**Cu**	1	**0.280**	ug/l	2.80	8.6	4500	45	P	
66	**Zn**	1	**1.886**	ug/l	18.86	5.1	4500	74	P	
75	**As**	1	**0.188**	ug/l	1.88	3.9	4500	45	P	
78	**Se**	1	**-0.088**	ug/l	-0.88	68.6	4500	45	P	
88	**Sr**	1	**51.650**	ug/l	516.50	2.5	4500	45	P	
95	**Mo**	1	**0.045**	ug/l	0.45	4.8	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	90.3	4500	103	P	
111	**Cd**	1	**0.012**	ug/l	0.12	115.8	4500	103	P	
118	**Sn**	1	**0.094**	ug/l	0.94	37.6	4500	103	P	
123	**Sb**	1	**0.009**	ug/l	0.09	91.5	4500	103	P	
135	**Ba**	1	**29.360**	ug/l	293.60	2.0	4500	103	P	
200	**Hg**	1	**0.005**	ug/l	0.05	86.3	45	209	P	
205	**Tl**	1	**0.011**	ug/l	0.11	40.8	4500	165	P	
208	**Pb**	1	**0.086**	ug/l	0.86	5.4	4500	209	P	
238	**U**	1	**0.042**	ug/l	0.42	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	101768	2.53	81580	**124.7**	30 - 125	
45	Sc	1	1735806	2.45	1568000	**110.7**	30 - 125	
74	Ge	1	3887083	0.56	3965000	**98.0**	30 - 125	
103	Rh	1	5068980	0.51	5756000	**88.1**	30 - 125	
165	Ho	1	2537179	0.94	2702000	**93.9**	30 - 125	
175	Lu	1	2177654	0.96	2349000	**92.7**	30 - 125	
209	Bi	1	2497987	0.23	2910000	**85.8**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\044SMPL.D\044SMPL.D#
Date Acquired: Sep 15 2011 06:23 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28224-A-4-F Vial Number: 2210
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.050**	ug/l	0.50	48.0	900	6	P	
23	**Na**	1	**156200.000**	ug/l	1,562,000.00	0.3	450000	6	A	
24	**Mg**	1	**1266.000**	ug/l	12,660.00	1.2	450000	6	A	
27	**Al**	1	**131.500**	ug/l	1,315.00	0.8	450000	6	P	
31	**P**	1	**10.630**	ug/l	106.30	23.9	450000	6	P	
39	**K**	1	**1289.000**	ug/l	12,890.00	2.1	450000	45	A	
44	**Ca**	1	**8673.000**	ug/l	86,730.00	2.3	450000	45	P	
47	**Ti**	1	**4.364**	ug/l	43.64	5.2	4500	45	P	
51	**V**	1	**1.176**	ug/l	11.76	2.0	4500	45	P	
52	**Cr**	1	**0.401**	ug/l	4.01	6.3	4500	45	P	
55	**Mn**	1	**10.810**	ug/l	108.10	3.3	4500	45	P	
57	**Fe**	1	**51.990**	ug/l	519.90	1.2	450000	74	P	
59	**Co**	1	**0.125**	ug/l	1.25	5.3	4500	45	P	
60	**Ni**	1	**0.332**	ug/l	3.32	5.5	4500	45	P	
63	**Cu**	1	**1.157**	ug/l	11.57	2.3	4500	45	P	
66	**Zn**	1	**4.270**	ug/l	42.70	6.1	4500	74	P	
75	**As**	1	**0.442**	ug/l	4.42	0.8	4500	45	P	
78	**Se**	1	**-0.083**	ug/l	-0.83	109.0	4500	45	P	
88	**Sr**	1	**39.310**	ug/l	393.10	2.5	4500	45	P	
95	**Mo**	1	**0.125**	ug/l	1.25	18.5	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.02	106.4	4500	103	P	
111	**Cd**	1	**0.021**	ug/l	0.21	44.4	4500	103	P	
118	**Sn**	1	**0.085**	ug/l	0.85	21.4	4500	103	P	
123	**Sb**	1	**0.013**	ug/l	0.13	43.4	4500	103	P	
135	**Ba**	1	**11.150**	ug/l	111.50	1.2	4500	103	P	
200	**Hg**	1	**0.008**	ug/l	0.08	48.6	45	209	P	
205	**Tl**	1	**0.015**	ug/l	0.15	48.5	4500	165	P	
208	**Pb**	1	**0.115**	ug/l	1.15	6.9	4500	209	P	
238	**U**	1	**0.808**	ug/l	8.08	2.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	105747	1.64	81580	**129.6**	30	-	125	**IS Fail**
45	Sc	1	1712363	3.35	1568000	**109.2**	30	-	125	
74	Ge	1	3862091	1.22	3965000	**97.4**	30	-	125	
103	Rh	1	5092790	2.13	5756000	**88.5**	30	-	125	
165	Ho	1	2557111	2.48	2702000	**94.6**	30	-	125	
175	Lu	1	2197365	0.97	2349000	**93.5**	30	-	125	
209	Bi	1	2477871	2.66	2910000	**85.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Fail**

0 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\045SMPL.D\045SMPL.D#
Date Acquired: Sep 15 2011 06:27 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**47.840**	ug/l	47.84	0.4	900	6	P	
23	**Na**	1	**4554.000**	ug/l	4,554.00	1.0	450000	6	A	
24	**Mg**	1	**4573.000**	ug/l	4,573.00	1.2	450000	6	A	
27	**Al**	1	**470.900**	ug/l	470.90	0.8	450000	6	P	
31	**P**	1	**4462.000**	ug/l	4,462.00	0.9	450000	6	P	
39	**K**	1	**4959.000**	ug/l	4,959.00	1.0	450000	45	A	
44	**Ca**	1	**4890.000**	ug/l	4,890.00	1.2	450000	45	P	
47	**Ti**	1	**48.820**	ug/l	48.82	2.6	4500	45	P	
51	**V**	1	**47.780**	ug/l	47.78	1.5	4500	45	P	
52	**Cr**	1	**47.540**	ug/l	47.54	1.6	4500	45	P	
55	**Mn**	1	**47.700**	ug/l	47.70	2.4	4500	45	P	
57	**Fe**	1	**5264.000**	ug/l	5,264.00	1.1	450000	74	A	
59	**Co**	1	**45.640**	ug/l	45.64	1.9	4500	45	P	
60	**Ni**	1	**47.230**	ug/l	47.23	1.9	4500	45	P	
63	**Cu**	1	**47.500**	ug/l	47.50	1.9	4500	45	P	
66	**Zn**	1	**49.630**	ug/l	49.63	1.3	4500	74	P	
75	**As**	1	**46.550**	ug/l	46.55	2.0	4500	45	P	
78	**Se**	1	**46.510**	ug/l	46.51	1.2	4500	45	P	
88	**Sr**	1	**45.970**	ug/l	45.97	2.0	4500	45	P	
95	**Mo**	1	**48.230**	ug/l	48.23	1.1	4500	74	P	
109	**Ag**	1	**47.500**	ug/l	47.50	1.2	4500	103	P	
111	**Cd**	1	**48.480**	ug/l	48.48	0.9	4500	103	P	
118	**Sn**	1	**48.270**	ug/l	48.27	0.6	4500	103	P	
123	**Sb**	1	**48.640**	ug/l	48.64	1.4	4500	103	P	
135	**Ba**	1	**48.710**	ug/l	48.71	0.9	4500	103	P	
200	**Hg**	1	**2.464**	ug/l	2.46	1.5	45	209	P	
205	**Tl**	1	**48.580**	ug/l	48.58	3.3	4500	165	A	
208	**Pb**	1	**48.250**	ug/l	48.25	2.0	4500	209	P	
238	**U**	1	**49.650**	ug/l	49.65	1.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	103873	1.22	81580	**127.3**	30	-	125	**IS Fail**
45	Sc	1	1745777	1.34	1568000	**111.3**	30	-	125	
74	Ge	1	3989083	1.07	3965000	**100.6**	30	-	125	
103	Rh	1	5474168	0.55	5756000	**95.1**	30	-	125	
165	Ho	1	2642153	1.28	2702000	**97.8**	30	-	125	
175	Lu	1	2270031	0.34	2349000	**96.6**	30	-	125	
209	Bi	1	2739965	1.55	2910000	**94.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Fail**

0 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\046SMPL.D\046SMPL.D#
Date Acquired: Sep 15 2011 06:32 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.021**	ug/l	0.02	62.2	900	6	P	
23	**Na**	1	**-11.320**	ug/l	-11.32	32.3	450000	6	P	
24	**Mg**	1	**1.220**	ug/l	1.22	6.0	450000	6	P	
27	**Al**	1	**-0.088**	ug/l	-0.09	63.7	450000	6	P	
31	**P**	1	**1.646**	ug/l	1.65	140.3	450000	6	P	
39	**K**	1	**1.276**	ug/l	1.28	236.4	450000	45	P	
44	**Ca**	1	**1.874**	ug/l	1.87	7.1	450000	45	P	
47	**Ti**	1	**0.023**	ug/l	0.02	47.7	4500	45	P	
51	**V**	1	**-0.071**	ug/l	-0.07	17.5	4500	45	P	
52	**Cr**	1	**-0.001**	ug/l	0.00	329.0	4500	45	P	
55	**Mn**	1	**0.028**	ug/l	0.03	12.2	4500	45	P	
57	**Fe**	1	**2.176**	ug/l	2.18	10.9	450000	74	P	
59	**Co**	1	**0.005**	ug/l	0.01	42.7	4500	45	P	
60	**Ni**	1	**0.026**	ug/l	0.03	33.2	4500	45	P	
63	**Cu**	1	**0.001**	ug/l	0.00	939.7	4500	45	P	
66	**Zn**	1	**0.035**	ug/l	0.03	16.6	4500	74	P	
75	**As**	1	**0.026**	ug/l	0.03	37.6	4500	45	P	
78	**Se**	1	**-0.105**	ug/l	-0.10	3.1	4500	45	P	
88	**Sr**	1	**0.009**	ug/l	0.01	52.0	4500	45	P	
95	**Mo**	1	**0.104**	ug/l	0.10	14.7	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.01	34.5	4500	103	P	
111	**Cd**	1	**0.005**	ug/l	0.00	108.3	4500	103	P	
118	**Sn**	1	**0.192**	ug/l	0.19	22.0	4500	103	P	
123	**Sb**	1	**0.049**	ug/l	0.05	31.0	4500	103	P	
135	**Ba**	1	**0.008**	ug/l	0.01	125.5	4500	103	P	
200	**Hg**	1	**0.009**	ug/l	0.01	51.9	45	209	P	
205	**Tl**	1	**0.238**	ug/l	0.24	12.2	4500	165	P	
208	**Pb**	1	**0.003**	ug/l	0.00	187.3	4500	209	P	
238	**U**	1	**0.020**	ug/l	0.02	13.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101756	0.59	81580	**124.7**	30	-	125	
45	Sc	1	1715015	2.27	1568000	**109.4**	30	-	125	
74	Ge	1	3988874	0.21	3965000	**100.6**	30	-	125	
103	Rh	1	5561291	1.14	5756000	**96.6**	30	-	125	
165	Ho	1	2647493	0.87	2702000	**98.0**	30	-	125	
175	Lu	1	2274843	0.43	2349000	**96.8**	30	-	125	
209	Bi	1	2788321	1.77	2910000	**95.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\047SMPL.D\047SMPL.D#
Date Acquired: Sep 15 2011 06:36 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28224-B-11-C Vial Number: 2301
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.043**	ug/l	0.43	35.8	900	6	P	
23	**Na**	1	**172000.000**	ug/l	1,720,000.00	1.8	450000	6	A	
24	**Mg**	1	**2084.000**	ug/l	20,840.00	0.6	450000	6	A	
27	**Al**	1	**149.700**	ug/l	1,497.00	1.6	450000	6	P	
31	**P**	1	**63.380**	ug/l	633.80	6.7	450000	6	P	
39	**K**	1	**1039.000**	ug/l	10,390.00	3.3	450000	45	A	
44	**Ca**	1	**11120.000**	ug/l	111,200.00	2.5	450000	45	P	
47	**Ti**	1	**5.177**	ug/l	51.77	2.0	4500	45	P	
51	**V**	1	**0.574**	ug/l	5.74	10.5	4500	45	P	
52	**Cr**	1	**0.458**	ug/l	4.58	4.9	4500	45	P	
55	**Mn**	1	**6.508**	ug/l	65.08	1.9	4500	45	P	
57	**Fe**	1	**49.410**	ug/l	494.10	2.0	450000	74	P	
59	**Co**	1	**0.028**	ug/l	0.28	16.1	4500	45	P	
60	**Ni**	1	**0.177**	ug/l	1.77	4.1	4500	45	P	
63	**Cu**	1	**0.952**	ug/l	9.52	2.4	4500	45	P	
66	**Zn**	1	**1.938**	ug/l	19.38	7.2	4500	74	P	
75	**As**	1	**0.181**	ug/l	1.81	7.5	4500	45	P	
78	**Se**	1	**0.030**	ug/l	0.30	53.1	4500	45	P	
88	**Sr**	1	**60.010**	ug/l	600.10	2.9	4500	45	P	
95	**Mo**	1	**0.075**	ug/l	0.75	20.2	4500	74	P	
109	**Ag**	1	**0.004**	ug/l	0.04	29.9	4500	103	P	
111	**Cd**	1	**0.009**	ug/l	0.09	158.8	4500	103	P	
118	**Sn**	1	**0.140**	ug/l	1.40	8.4	4500	103	P	
123	**Sb**	1	**0.027**	ug/l	0.27	35.6	4500	103	P	
135	**Ba**	1	**52.310**	ug/l	523.10	1.8	4500	103	P	
200	**Hg**	1	**0.008**	ug/l	0.08	40.1	45	209	P	
205	**Tl**	1	**0.061**	ug/l	0.61	32.8	4500	165	P	
208	**Pb**	1	**0.145**	ug/l	1.45	10.0	4500	209	P	
238	**U**	1	**0.106**	ug/l	1.06	3.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	94435	0.85	81580	**115.8**	30	-	125	
45	Sc	1	1656195	2.35	1568000	**105.6**	30	-	125	
74	Ge	1	3772595	0.48	3965000	**95.1**	30	-	125	
103	Rh	1	4937480	1.63	5756000	**85.8**	30	-	125	
165	Ho	1	2502749	0.86	2702000	**92.6**	30	-	125	
175	Lu	1	2151636	0.61	2349000	**91.6**	30	-	125	
209	Bi	1	2455143	1.94	2910000	**84.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\048SMPL.D\048SMPL.D#
Date Acquired: Sep 15 2011 06:41 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28224-A-12-F Vial Number: 2302
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.039**	ug/l	0.39	56.7	900	6	P	
23	**Na**	1	**159000.000**	ug/l	1,590,000.00	1.1	450000	6	A	
24	**Mg**	1	**2794.000**	ug/l	27,940.00	1.1	450000	6	A	
27	**Al**	1	**125.000**	ug/l	1,250.00	1.3	450000	6	P	
31	**P**	1	**127.600**	ug/l	1,276.00	1.8	450000	6	P	
39	**K**	1	**1305.000**	ug/l	13,050.00	3.2	450000	45	A	
44	**Ca**	1	**11750.000**	ug/l	117,500.00	3.5	450000	45	P	
47	**Ti**	1	**1.123**	ug/l	11.23	9.1	4500	45	P	
51	**V**	1	**0.520**	ug/l	5.20	9.9	4500	45	P	
52	**Cr**	1	**0.453**	ug/l	4.53	1.1	4500	45	P	
55	**Mn**	1	**2501.000**	ug/l	25,010.00	2.7	4500	45	A	
57	**Fe**	1	**704.800**	ug/l	7,048.00	1.3	450000	74	P	
59	**Co**	1	**2.302**	ug/l	23.02	3.5	4500	45	P	
60	**Ni**	1	**0.604**	ug/l	6.04	5.1	4500	45	P	
63	**Cu**	1	**0.346**	ug/l	3.46	3.0	4500	45	P	
66	**Zn**	1	**9.406**	ug/l	94.06	0.6	4500	74	P	
75	**As**	1	**0.961**	ug/l	9.61	3.9	4500	45	P	
78	**Se**	1	**-0.046**	ug/l	-0.46	72.1	4500	45	P	
88	**Sr**	1	**69.420**	ug/l	694.20	3.1	4500	45	P	
95	**Mo**	1	**0.144**	ug/l	1.44	22.8	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.02	26.8	4500	103	P	
111	**Cd**	1	**0.065**	ug/l	0.65	12.7	4500	103	P	
118	**Sn**	1	**0.094**	ug/l	0.94	12.3	4500	103	P	
123	**Sb**	1	**0.016**	ug/l	0.16	10.8	4500	103	P	
135	**Ba**	1	**79.890**	ug/l	798.90	1.1	4500	103	P	
200	**Hg**	1	**0.006**	ug/l	0.06	57.6	45	209	P	
205	**Tl**	1	**0.032**	ug/l	0.32	40.7	4500	165	P	
208	**Pb**	1	**0.042**	ug/l	0.42	15.3	4500	209	P	
238	**U**	1	**0.141**	ug/l	1.41	6.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	97360	1.93	81580	**119.3**	30	-	125	
45	Sc	1	1648082	3.65	1568000	**105.1**	30	-	125	
74	Ge	1	3786843	1.37	3965000	**95.5**	30	-	125	
103	Rh	1	4915129	0.85	5756000	**85.4**	30	-	125	
165	Ho	1	2509443	0.73	2702000	**92.9**	30	-	125	
175	Lu	1	2164648	1.44	2349000	**92.2**	30	-	125	
209	Bi	1	2450587	2.26	2910000	**84.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\049SMPL.D\049SMPL.D#
Date Acquired: Sep 15 2011 06:45 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28370-B-1-B Vial Number: 2303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.029**	ug/l	0.29	8.5	900	6	P	
23	**Na**	1	**160100.000**	ug/l	1,601,000.00	1.0	450000	6	A	
24	**Mg**	1	**1819.000**	ug/l	18,190.00	1.8	450000	6	A	
27	**Al**	1	**129.800**	ug/l	1,298.00	1.2	450000	6	P	
31	**P**	1	**8.042**	ug/l	80.42	9.4	450000	6	P	
39	**K**	1	**742.500**	ug/l	7,425.00	1.2	450000	45	A	
44	**Ca**	1	**22850.000**	ug/l	228,500.00	1.1	450000	45	A	
47	**Ti**	1	**0.621**	ug/l	6.21	5.1	4500	45	P	
51	**V**	1	**0.083**	ug/l	0.83	33.3	4500	45	P	
52	**Cr**	1	**0.516**	ug/l	5.16	5.3	4500	45	P	
55	**Mn**	1	**409.200**	ug/l	4,092.00	1.3	4500	45	A	
57	**Fe**	1	**105.300**	ug/l	1,053.00	1.8	450000	74	P	
59	**Co**	1	**2.663**	ug/l	26.63	2.9	4500	45	P	
60	**Ni**	1	**0.801**	ug/l	8.01	2.4	4500	45	P	
63	**Cu**	1	**1.450**	ug/l	14.50	2.2	4500	45	P	
66	**Zn**	1	**10.130**	ug/l	101.30	2.3	4500	74	P	
75	**As**	1	**1.448**	ug/l	14.48	2.5	4500	45	P	
78	**Se**	1	**0.051**	ug/l	0.51	75.3	4500	45	P	
88	**Sr**	1	**51.030**	ug/l	510.30	2.5	4500	45	P	
95	**Mo**	1	**0.062**	ug/l	0.62	11.1	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	83.2	4500	103	P	
111	**Cd**	1	**0.089**	ug/l	0.89	43.0	4500	103	P	
118	**Sn**	1	**0.089**	ug/l	0.89	20.3	4500	103	P	
123	**Sb**	1	**0.078**	ug/l	0.78	2.8	4500	103	P	
135	**Ba**	1	**161.100**	ug/l	1,611.00	1.9	4500	103	P	
200	**Hg**	1	**0.004**	ug/l	0.04	63.7	45	209	P	
205	**Tl**	1	**0.123**	ug/l	1.23	10.6	4500	165	P	
208	**Pb**	1	**0.176**	ug/l	1.76	4.0	4500	209	P	
238	**U**	1	**0.091**	ug/l	0.91	4.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	96048	1.15	81580	**117.7**	30	-	125	
45	Sc	1	1621819	1.82	1568000	**103.4**	30	-	125	
74	Ge	1	3702281	0.25	3965000	**93.4**	30	-	125	
103	Rh	1	4935583	0.43	5756000	**85.7**	30	-	125	
165	Ho	1	2454054	0.42	2702000	**90.8**	30	-	125	
175	Lu	1	2123667	1.47	2349000	**90.4**	30	-	125	
209	Bi	1	2426429	0.54	2910000	**83.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\050SMPL.D\050SMPL.D#
Date Acquired: Sep 15 2011 06:49 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28370-B-2-B Vial Number: 2304
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.023**	ug/l	0.23	77.0	900	6	P	
23	**Na**	1	**149400.000**	ug/l	1,494,000.00	0.2	450000	6	A	
24	**Mg**	1	**2397.000**	ug/l	23,970.00	1.1	450000	6	A	
27	**Al**	1	**114.200**	ug/l	1,142.00	1.1	450000	6	P	
31	**P**	1	**47.540**	ug/l	475.40	5.7	450000	6	P	
39	**K**	1	**946.000**	ug/l	9,460.00	2.0	450000	45	A	
44	**Ca**	1	**19100.000**	ug/l	191,000.00	1.0	450000	45	A	
47	**Ti**	1	**0.658**	ug/l	6.58	11.4	4500	45	P	
51	**V**	1	**0.609**	ug/l	6.09	4.4	4500	45	P	
52	**Cr**	1	**0.395**	ug/l	3.95	4.6	4500	45	P	
55	**Mn**	1	**1673.000**	ug/l	16,730.00	0.9	4500	45	A	
57	**Fe**	1	**31.270**	ug/l	312.70	2.1	450000	74	P	
59	**Co**	1	**1.231**	ug/l	12.31	2.0	4500	45	P	
60	**Ni**	1	**0.392**	ug/l	3.92	8.8	4500	45	P	
63	**Cu**	1	**0.716**	ug/l	7.16	4.5	4500	45	P	
66	**Zn**	1	**2.165**	ug/l	21.65	7.0	4500	74	P	
75	**As**	1	**0.379**	ug/l	3.79	8.0	4500	45	P	
78	**Se**	1	**0.012**	ug/l	0.12	157.7	4500	45	P	
88	**Sr**	1	**71.320**	ug/l	713.20	2.9	4500	45	P	
95	**Mo**	1	**0.070**	ug/l	0.70	22.5	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	522.2	4500	103	P	
111	**Cd**	1	**0.037**	ug/l	0.37	71.7	4500	103	P	
118	**Sn**	1	**0.070**	ug/l	0.70	26.3	4500	103	P	
123	**Sb**	1	**0.011**	ug/l	0.11	24.5	4500	103	P	
135	**Ba**	1	**84.090**	ug/l	840.90	0.6	4500	103	P	
200	**Hg**	1	**0.004**	ug/l	0.04	111.5	45	209	P	
205	**Tl**	1	**0.022**	ug/l	0.22	38.0	4500	165	P	
208	**Pb**	1	**0.036**	ug/l	0.36	3.9	4500	209	P	
238	**U**	1	**0.031**	ug/l	0.31	4.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	96024	1.67	81580	**117.7**	30	-	125	
45	Sc	1	1633923	3.10	1568000	**104.2**	30	-	125	
74	Ge	1	3756174	0.95	3965000	**94.7**	30	-	125	
103	Rh	1	4924042	0.57	5756000	**85.5**	30	-	125	
165	Ho	1	2503903	1.30	2702000	**92.7**	30	-	125	
175	Lu	1	2162619	0.60	2349000	**92.1**	30	-	125	
209	Bi	1	2480584	2.63	2910000	**85.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\051SMPL.D\051SMPL.D#
Date Acquired: Sep 15 2011 06:54 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28370-C-3-I Vial Number: 2305
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.035**	ug/l	0.35	25.3	900	6	P	
23	**Na**	1	**159400.000**	ug/l	1,594,000.00	1.4	450000	6	A	
24	**Mg**	1	**1925.000**	ug/l	19,250.00	0.8	450000	6	A	
27	**Al**	1	**81.340**	ug/l	813.40	1.8	450000	6	P	
31	**P**	1	**17.200**	ug/l	172.00	1.9	450000	6	P	
39	**K**	1	**1197.000**	ug/l	11,970.00	2.1	450000	45	A	
44	**Ca**	1	**25780.000**	ug/l	257,800.00	0.8	450000	45	A	
47	**Ti**	1	**0.392**	ug/l	3.92	4.6	4500	45	P	
51	**V**	1	**0.436**	ug/l	4.36	9.3	4500	45	P	
52	**Cr**	1	**0.290**	ug/l	2.90	3.9	4500	45	P	
55	**Mn**	1	**1068.000**	ug/l	10,680.00	1.7	4500	45	A	
57	**Fe**	1	**35.820**	ug/l	358.20	2.9	450000	74	P	
59	**Co**	1	**3.766**	ug/l	37.66	2.8	4500	45	P	
60	**Ni**	1	**1.463**	ug/l	14.63	2.4	4500	45	P	
63	**Cu**	1	**3.195**	ug/l	31.95	2.9	4500	45	P	
66	**Zn**	1	**4.366**	ug/l	43.66	1.0	4500	74	P	
75	**As**	1	**6.387**	ug/l	63.87	3.8	4500	45	P	
78	**Se**	1	**0.014**	ug/l	0.14	123.6	4500	45	P	
88	**Sr**	1	**83.890**	ug/l	838.90	1.9	4500	45	P	
95	**Mo**	1	**0.224**	ug/l	2.24	7.8	4500	74	P	
109	**Ag**	1	**0.040**	ug/l	0.40	170.9	4500	103	P	
111	**Cd**	1	**0.098**	ug/l	0.98	30.7	4500	103	P	
118	**Sn**	1	**0.058**	ug/l	0.58	44.1	4500	103	P	
123	**Sb**	1	**0.226**	ug/l	2.26	10.7	4500	103	P	
135	**Ba**	1	**111.300**	ug/l	1,113.00	1.4	4500	103	P	
200	**Hg**	1	**0.005**	ug/l	0.05	42.5	45	209	P	
205	**Tl**	1	**0.129**	ug/l	1.29	11.9	4500	165	P	
208	**Pb**	1	**0.074**	ug/l	0.74	14.4	4500	209	P	
238	**U**	1	**0.192**	ug/l	1.92	2.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	98187	1.11	81580	**120.4**	30	-	125	
45	Sc	1	1657181	1.91	1568000	**105.7**	30	-	125	
74	Ge	1	3770815	1.09	3965000	**95.1**	30	-	125	
103	Rh	1	4970104	1.01	5756000	**86.3**	30	-	125	
165	Ho	1	2509897	2.03	2702000	**92.9**	30	-	125	
175	Lu	1	2184272	1.81	2349000	**93.0**	30	-	125	
209	Bi	1	2455819	1.63	2910000	**84.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\052SMPL.D\052SMPL.D#
Date Acquired: Sep 15 2011 06:58 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-B-1-C Vial Number: 2306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.024**	ug/l	0.24	80.8	900	6	P	
23	**Na**	1	**158200.000**	ug/l	1,582,000.00	2.1	450000	6	A	
24	**Mg**	1	**1824.000**	ug/l	18,240.00	1.6	450000	6	A	
27	**Al**	1	**343.700**	ug/l	3,437.00	0.5	450000	6	P	
31	**P**	1	**13.420**	ug/l	134.20	9.9	450000	6	P	
39	**K**	1	**875.700**	ug/l	8,757.00	0.7	450000	45	A	
44	**Ca**	1	**15470.000**	ug/l	154,700.00	1.2	450000	45	A	
47	**Ti**	1	**4.349**	ug/l	43.49	8.5	4500	45	P	
51	**V**	1	**0.899**	ug/l	8.99	6.9	4500	45	P	
52	**Cr**	1	**0.605**	ug/l	6.05	2.8	4500	45	P	
55	**Mn**	1	**432.500**	ug/l	4,325.00	1.6	4500	45	A	
57	**Fe**	1	**215.500**	ug/l	2,155.00	0.9	450000	74	P	
59	**Co**	1	**3.249**	ug/l	32.49	2.7	4500	45	P	
60	**Ni**	1	**0.738**	ug/l	7.38	8.2	4500	45	P	
63	**Cu**	1	**4.339**	ug/l	43.39	1.8	4500	45	P	
66	**Zn**	1	**5.491**	ug/l	54.91	3.0	4500	74	P	
75	**As**	1	**4.018**	ug/l	40.18	3.8	4500	45	P	
78	**Se**	1	**-0.043**	ug/l	-0.43	100.5	4500	45	P	
88	**Sr**	1	**41.330**	ug/l	413.30	1.9	4500	45	P	
95	**Mo**	1	**0.052**	ug/l	0.52	10.7	4500	74	P	
109	**Ag**	1	**0.005**	ug/l	0.05	31.4	4500	103	P	
111	**Cd**	1	**0.093**	ug/l	0.93	41.8	4500	103	P	
118	**Sn**	1	**0.076**	ug/l	0.76	13.8	4500	103	P	
123	**Sb**	1	**0.158**	ug/l	1.58	9.1	4500	103	P	
135	**Ba**	1	**165.300**	ug/l	1,653.00	1.3	4500	103	P	
200	**Hg**	1	**0.003**	ug/l	0.03	216.4	45	209	P	
205	**Tl**	1	**0.150**	ug/l	1.50	4.2	4500	165	P	
208	**Pb**	1	**0.289**	ug/l	2.89	6.1	4500	209	P	
238	**U**	1	**0.109**	ug/l	1.09	4.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	98878	2.46	81580	**121.2**	30	-	125	
45	Sc	1	1661893	2.22	1568000	**106.0**	30	-	125	
74	Ge	1	3796843	1.68	3965000	**95.8**	30	-	125	
103	Rh	1	4955891	1.42	5756000	**86.1**	30	-	125	
165	Ho	1	2504170	1.56	2702000	**92.7**	30	-	125	
175	Lu	1	2172598	2.26	2349000	**92.5**	30	-	125	
209	Bi	1	2467145	2.29	2910000	**84.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\053SMPL.D\053SMPL.D#
Date Acquired: Sep 15 2011 07:02 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-B-2-C Vial Number: 2307
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.026**	ug/l	0.26	85.6	900	6	P	
23	**Na**	1	**149000.000**	ug/l	1,490,000.00	0.5	450000	6	A	
24	**Mg**	1	**2717.000**	ug/l	27,170.00	1.4	450000	6	A	
27	**Al**	1	**164.500**	ug/l	1,645.00	1.5	450000	6	P	
31	**P**	1	**15.570**	ug/l	155.70	8.5	450000	6	P	
39	**K**	1	**1916.000**	ug/l	19,160.00	2.2	450000	45	A	
44	**Ca**	1	**13780.000**	ug/l	137,800.00	0.8	450000	45	A	
47	**Ti**	1	**8.148**	ug/l	81.48	0.8	4500	45	P	
51	**V**	1	**0.615**	ug/l	6.15	1.8	4500	45	P	
52	**Cr**	1	**0.427**	ug/l	4.27	1.1	4500	45	P	
55	**Mn**	1	**1565.000**	ug/l	15,650.00	0.9	4500	45	A	
57	**Fe**	1	**68.420**	ug/l	684.20	2.2	450000	74	P	
59	**Co**	1	**4.168**	ug/l	41.68	0.3	4500	45	P	
60	**Ni**	1	**0.821**	ug/l	8.21	5.1	4500	45	P	
63	**Cu**	1	**1.586**	ug/l	15.86	1.9	4500	45	P	
66	**Zn**	1	**3.716**	ug/l	37.16	0.3	4500	74	P	
75	**As**	1	**1.087**	ug/l	10.87	4.2	4500	45	P	
78	**Se**	1	**0.038**	ug/l	0.38	83.3	4500	45	P	
88	**Sr**	1	**64.280**	ug/l	642.80	1.6	4500	45	P	
95	**Mo**	1	**0.176**	ug/l	1.76	6.9	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	182.8	4500	103	P	
111	**Cd**	1	**0.061**	ug/l	0.61	23.8	4500	103	P	
118	**Sn**	1	**0.059**	ug/l	0.59	6.9	4500	103	P	
123	**Sb**	1	**0.017**	ug/l	0.17	50.1	4500	103	P	
135	**Ba**	1	**82.620**	ug/l	826.20	1.7	4500	103	P	
200	**Hg**	1	**0.003**	ug/l	0.03	129.8	45	209	P	
205	**Tl**	1	**0.010**	ug/l	0.10	52.0	4500	165	P	
208	**Pb**	1	**0.139**	ug/l	1.39	7.2	4500	209	P	
238	**U**	1	**0.164**	ug/l	1.64	2.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	98523	3.03	81580	**120.8**	30	-	125	
45	Sc	1	1671122	1.98	1568000	**106.6**	30	-	125	
74	Ge	1	3797272	1.47	3965000	**95.8**	30	-	125	
103	Rh	1	5009722	2.48	5756000	**87.0**	30	-	125	
165	Ho	1	2515999	2.65	2702000	**93.1**	30	-	125	
175	Lu	1	2181980	2.23	2349000	**92.9**	30	-	125	
209	Bi	1	2497367	2.08	2910000	**85.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\054SMPL.D\054SMPL.D#
Date Acquired: Sep 15 2011 07:06 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-B-3-C Vial Number: 2308
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.028**	ug/l	0.28	38.7	900	6	P	
23	**Na**	1	**157500.000**	ug/l	1,575,000.00	2.3	450000	6	A	
24	**Mg**	1	**2670.000**	ug/l	26,700.00	0.9	450000	6	A	
27	**Al**	1	**100.100**	ug/l	1,001.00	0.9	450000	6	P	
31	**P**	1	**5.784**	ug/l	57.84	21.3	450000	6	P	
39	**K**	1	**1274.000**	ug/l	12,740.00	3.9	450000	45	A	
44	**Ca**	1	**40040.000**	ug/l	400,400.00	2.3	450000	45	A	
47	**Ti**	1	**0.535**	ug/l	5.35	14.8	4500	45	P	
51	**V**	1	**0.064**	ug/l	0.64	75.5	4500	45	P	
52	**Cr**	1	**0.343**	ug/l	3.43	4.7	4500	45	P	
55	**Mn**	1	**1026.000**	ug/l	10,260.00	2.7	4500	45	A	
57	**Fe**	1	**148.900**	ug/l	1,489.00	2.3	450000	74	P	
59	**Co**	1	**3.892**	ug/l	38.92	3.5	4500	45	P	
60	**Ni**	1	**1.082**	ug/l	10.82	9.5	4500	45	P	
63	**Cu**	1	**0.567**	ug/l	5.67	5.9	4500	45	P	
66	**Zn**	1	**6.231**	ug/l	62.31	2.6	4500	74	P	
75	**As**	1	**5.374**	ug/l	53.74	5.5	4500	45	P	
78	**Se**	1	**0.033**	ug/l	0.33	150.2	4500	45	P	
88	**Sr**	1	**90.080**	ug/l	900.80	2.8	4500	45	P	
95	**Mo**	1	**0.137**	ug/l	1.37	8.8	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	926.8	4500	103	P	
111	**Cd**	1	**0.080**	ug/l	0.80	1.8	4500	103	P	
118	**Sn**	1	**0.051**	ug/l	0.51	6.3	4500	103	P	
123	**Sb**	1	**0.173**	ug/l	1.73	5.4	4500	103	P	
135	**Ba**	1	**165.500**	ug/l	1,655.00	1.4	4500	103	P	
200	**Hg**	1	**-0.001**	ug/l	-0.01	455.6	45	209	P	
205	**Tl**	1	**0.069**	ug/l	0.69	7.7	4500	165	P	
208	**Pb**	1	**0.186**	ug/l	1.86	5.1	4500	209	P	
238	**U**	1	**0.284**	ug/l	2.84	2.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	98316	1.63	81580	**120.5**	30	-	125	
45	Sc	1	1643695	3.24	1568000	**104.8**	30	-	125	
74	Ge	1	3765344	0.37	3965000	**95.0**	30	-	125	
103	Rh	1	4975254	0.91	5756000	**86.4**	30	-	125	
165	Ho	1	2514868	1.58	2702000	**93.1**	30	-	125	
175	Lu	1	2160917	1.53	2349000	**92.0**	30	-	125	
209	Bi	1	2444372	1.11	2910000	**84.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\055SMPL.D\055SMPL.D#
Date Acquired: Sep 15 2011 07:11 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28333-B-4-G Vial Number: 2309
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.033**	ug/l	0.33	27.0	900	6	P	
23	**Na**	1	**167200.000**	ug/l	1,672,000.00	1.5	450000	6	A	
24	**Mg**	1	**2354.000**	ug/l	23,540.00	2.4	450000	6	A	
27	**Al**	1	**95.830**	ug/l	958.30	1.6	450000	6	P	
31	**P**	1	**9.187**	ug/l	91.87	9.6	450000	6	P	
39	**K**	1	**786.800**	ug/l	7,868.00	1.9	450000	45	A	
44	**Ca**	1	**33280.000**	ug/l	332,800.00	2.2	450000	45	A	
47	**Ti**	1	**0.438**	ug/l	4.38	17.1	4500	45	P	
51	**V**	1	**0.256**	ug/l	2.56	5.8	4500	45	P	
52	**Cr**	1	**0.362**	ug/l	3.62	2.8	4500	45	P	
55	**Mn**	1	**175.300**	ug/l	1,753.00	1.0	4500	45	A	
57	**Fe**	1	**40.580**	ug/l	405.80	2.3	450000	74	P	
59	**Co**	1	**0.636**	ug/l	6.36	6.1	4500	45	P	
60	**Ni**	1	**0.657**	ug/l	6.57	6.0	4500	45	P	
63	**Cu**	1	**1.392**	ug/l	13.92	5.0	4500	45	P	
66	**Zn**	1	**3.583**	ug/l	35.83	2.8	4500	74	P	
75	**As**	1	**2.544**	ug/l	25.44	3.3	4500	45	P	
78	**Se**	1	**0.014**	ug/l	0.14	77.3	4500	45	P	
88	**Sr**	1	**54.460**	ug/l	544.60	2.4	4500	45	P	
95	**Mo**	1	**0.115**	ug/l	1.15	8.9	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	148.7	4500	103	P	
111	**Cd**	1	**0.064**	ug/l	0.64	45.8	4500	103	P	
118	**Sn**	1	**0.029**	ug/l	0.29	22.2	4500	103	P	
123	**Sb**	1	**0.068**	ug/l	0.68	10.6	4500	103	P	
135	**Ba**	1	**125.900**	ug/l	1,259.00	0.9	4500	103	P	
200	**Hg**	1	**-0.005**	ug/l	-0.05	45.5	45	209	P	
205	**Tl**	1	**0.034**	ug/l	0.34	17.7	4500	165	P	
208	**Pb**	1	**0.091**	ug/l	0.91	6.5	4500	209	P	
238	**U**	1	**0.203**	ug/l	2.03	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	101119	1.30	81580	**124.0**	30	-	125	
45	Sc	1	1684949	2.70	1568000	**107.5**	30	-	125	
74	Ge	1	3805396	1.09	3965000	**96.0**	30	-	125	
103	Rh	1	5030200	1.06	5756000	**87.4**	30	-	125	
165	Ho	1	2541909	2.09	2702000	**94.1**	30	-	125	
175	Lu	1	2180990	1.69	2349000	**92.8**	30	-	125	
209	Bi	1	2504400	2.17	2910000	**86.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\056SMPL.D\056SMPL.D#
Date Acquired: Sep 15 2011 07:15 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**48.270**	ug/l	48.27	1.9	900	6	P	
23	Na	1	**4577.000**	ug/l	4,577.00	0.6	450000	6	A	
24	Mg	1	**4731.000**	ug/l	4,731.00	1.9	450000	6	A	
27	Al	1	**476.400**	ug/l	476.40	0.8	450000	6	P	
31	P	1	**4558.000**	ug/l	4,558.00	0.7	450000	6	P	
39	K	1	**4947.000**	ug/l	4,947.00	2.1	450000	45	A	
44	Ca	1	**4929.000**	ug/l	4,929.00	2.3	450000	45	P	
47	Ti	1	**48.790**	ug/l	48.79	2.6	4500	45	P	
51	V	1	**48.410**	ug/l	48.41	3.0	4500	45	P	
52	Cr	1	**48.320**	ug/l	48.32	2.9	4500	45	P	
55	Mn	1	**48.130**	ug/l	48.13	2.9	4500	45	P	
57	Fe	1	**5159.000**	ug/l	5,159.00	1.4	450000	74	A	
59	Co	1	**46.450**	ug/l	46.45	2.9	4500	45	P	
60	Ni	1	**48.120**	ug/l	48.12	3.9	4500	45	P	
63	Cu	1	**48.590**	ug/l	48.59	2.7	4500	45	P	
66	Zn	1	**49.530**	ug/l	49.53	0.4	4500	74	P	
75	As	1	**48.010**	ug/l	48.01	3.1	4500	45	P	
78	Se	1	**47.980**	ug/l	47.98	3.9	4500	45	P	
88	Sr	1	**47.580**	ug/l	47.58	2.0	4500	45	P	
95	Mo	1	**48.300**	ug/l	48.30	0.8	4500	74	P	
109	Ag	1	**47.330**	ug/l	47.33	1.6	4500	103	P	
111	Cd	1	**48.180**	ug/l	48.18	0.6	4500	103	P	
118	Sn	1	**48.480**	ug/l	48.48	1.1	4500	103	P	
123	Sb	1	**48.330**	ug/l	48.33	1.0	4500	103	P	
135	Ba	1	**48.280**	ug/l	48.28	0.9	4500	103	P	
200	Hg	1	**2.434**	ug/l	2.43	2.3	45	209	P	
205	Tl	1	**48.060**	ug/l	48.06	3.4	4500	165	A	
208	Pb	1	**48.200**	ug/l	48.20	2.4	4500	209	P	
238	U	1	**49.250**	ug/l	49.25	2.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	96837	0.75	81580	**118.7**	30	-	125	
45	Sc	1	1665831	3.41	1568000	**106.2**	30	-	125	
74	Ge	1	3913552	1.35	3965000	**98.7**	30	-	125	
103	Rh	1	5425053	1.34	5756000	**94.3**	30	-	125	
165	Ho	1	2615541	1.42	2702000	**96.8**	30	-	125	
175	Lu	1	2233674	2.39	2349000	**95.1**	30	-	125	
209	Bi	1	2715279	2.28	2910000	**93.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\057SMPL.D\057SMPL.D#
Date Acquired: Sep 15 2011 07:19 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.01	145.4	900	6	P	
23	**Na**	1	**6.192**	ug/l	6.19	48.3	450000	6	P	
24	**Mg**	1	**2.616**	ug/l	2.62	12.7	450000	6	P	
27	**Al**	1	**0.042**	ug/l	0.04	87.1	450000	6	P	
31	**P**	1	**1.939**	ug/l	1.94	123.2	450000	6	P	
39	**K**	1	**3.462**	ug/l	3.46	114.0	450000	45	P	
44	**Ca**	1	**5.050**	ug/l	5.05	25.3	450000	45	P	
47	**Ti**	1	**0.027**	ug/l	0.03	48.8	4500	45	P	
51	**V**	1	**-0.171**	ug/l	-0.17	12.9	4500	45	P	
52	**Cr**	1	**0.017**	ug/l	0.02	36.2	4500	45	P	
55	**Mn**	1	**0.090**	ug/l	0.09	9.1	4500	45	P	
57	**Fe**	1	**2.480**	ug/l	2.48	20.5	450000	74	P	
59	**Co**	1	**0.014**	ug/l	0.01	22.2	4500	45	P	
60	**Ni**	1	**0.029**	ug/l	0.03	47.5	4500	45	P	
63	**Cu**	1	**0.008**	ug/l	0.01	303.1	4500	45	P	
66	**Zn**	1	**0.014**	ug/l	0.01	87.0	4500	74	P	
75	**As**	1	**0.010**	ug/l	0.01	125.4	4500	45	P	
78	**Se**	1	**-0.041**	ug/l	-0.04	230.0	4500	45	P	
88	**Sr**	1	**0.016**	ug/l	0.02	19.8	4500	45	P	
95	**Mo**	1	**0.106**	ug/l	0.11	10.1	4500	74	P	
109	**Ag**	1	**0.014**	ug/l	0.01	9.3	4500	103	P	
111	**Cd**	1	**0.019**	ug/l	0.02	46.6	4500	103	P	
118	**Sn**	1	**0.186**	ug/l	0.19	9.2	4500	103	P	
123	**Sb**	1	**0.054**	ug/l	0.05	15.9	4500	103	P	
135	**Ba**	1	**0.021**	ug/l	0.02	44.2	4500	103	P	
200	**Hg**	1	**0.005**	ug/l	0.01	34.3	45	209	P	
205	**Tl**	1	**0.243**	ug/l	0.24	2.7	4500	165	P	
208	**Pb**	1	**0.022**	ug/l	0.02	57.4	4500	209	P	
238	**U**	1	**0.027**	ug/l	0.03	6.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	93956	0.89	81580	**115.2**	30 - 125	
45	Sc	1	1642342	1.94	1568000	**104.7**	30 - 125	
74	Ge	1	3896826	0.47	3965000	**98.3**	30 - 125	
103	Rh	1	5447072	1.26	5756000	**94.6**	30 - 125	
165	Ho	1	2647093	1.64	2702000	**98.0**	30 - 125	
175	Lu	1	2290716	2.13	2349000	**97.5**	30 - 125	
209	Bi	1	2784198	0.87	2910000	**95.7**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\058SMPL.D\058SMPL.D#
Date Acquired: Sep 15 2011 07:24 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-95373/15-A Vial Number: 3101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.008**	ug/l	0.08	96.1	900	6	P	
23	**Na**	1	**-6.864**	ug/l	-68.64	11.6	450000	6	P	
24	**Mg**	1	**1.906**	ug/l	19.06	5.6	450000	6	P	
27	**Al**	1	**1.402**	ug/l	14.02	14.9	450000	6	P	
31	**P**	1	**0.361**	ug/l	3.61	224.2	450000	6	P	
39	**K**	1	**0.445**	ug/l	4.45	496.3	450000	45	P	
44	**Ca**	1	**8.842**	ug/l	88.42	6.4	450000	45	P	
47	**Ti**	1	**0.066**	ug/l	0.66	39.2	4500	45	P	
51	**V**	1	**-0.109**	ug/l	-1.09	27.1	4500	45	P	
52	**Cr**	1	**0.009**	ug/l	0.09	105.6	4500	45	P	
55	**Mn**	1	**0.084**	ug/l	0.84	5.7	4500	45	P	
57	**Fe**	1	**2.818**	ug/l	28.18	16.1	450000	74	P	
59	**Co**	1	**0.002**	ug/l	0.02	68.4	4500	45	P	
60	**Ni**	1	**0.053**	ug/l	0.53	26.1	4500	45	P	
63	**Cu**	1	**0.116**	ug/l	1.16	18.2	4500	45	P	
66	**Zn**	1	**0.555**	ug/l	5.55	7.2	4500	74	P	
75	**As**	1	**-0.006**	ug/l	-0.06	389.3	4500	45	P	
78	**Se**	1	**-0.027**	ug/l	-0.27	220.7	4500	45	P	
88	**Sr**	1	**0.035**	ug/l	0.35	12.9	4500	45	P	
95	**Mo**	1	**0.043**	ug/l	0.43	38.4	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.02	45.6	4500	103	P	
111	**Cd**	1	**0.005**	ug/l	0.05	67.5	4500	103	P	
118	**Sn**	1	**0.089**	ug/l	0.89	24.5	4500	103	P	
123	**Sb**	1	**0.014**	ug/l	0.14	32.7	4500	103	P	
135	**Ba**	1	**0.061**	ug/l	0.61	13.8	4500	103	P	
200	**Hg**	1	**-0.001**	ug/l	-0.01	492.4	45	209	P	
205	**Tl**	1	**0.059**	ug/l	0.59	14.3	4500	165	P	
208	**Pb**	1	**0.015**	ug/l	0.15	28.7	4500	209	P	
238	**U**	1	**0.005**	ug/l	0.05	11.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	92876	0.58	81580	**113.8**	30	-	125	
45	Sc	1	1655347	1.90	1568000	**105.6**	30	-	125	
74	Ge	1	3927694	1.15	3965000	**99.1**	30	-	125	
103	Rh	1	5598196	0.13	5756000	**97.3**	30	-	125	
165	Ho	1	2677313	0.05	2702000	**99.1**	30	-	125	
175	Lu	1	2318344	0.90	2349000	**98.7**	30	-	125	
209	Bi	1	2840020	0.87	2910000	**97.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\059SMPL.D\059SMPL.D#
Date Acquired: Sep 15 2011 07:28 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95373/16-A Vial Number: 3102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.140**	ug/l	107.00	2.5	900	6	P	
23	**Na**	1	**429.800**	ug/l	21,490.00	2.3	450000	6	A	
24	**Mg**	1	**431.500**	ug/l	21,575.00	0.9	450000	6	P	
27	**Al**	1	**89.240**	ug/l	4,462.00	2.8	450000	6	P	
31	**P**	1	**402.700**	ug/l	20,135.00	1.5	450000	6	P	
39	**K**	1	**436.700**	ug/l	21,835.00	3.7	450000	45	P	
44	**Ca**	1	**393.200**	ug/l	19,660.00	2.7	450000	45	P	
47	**Ti**	1	**102.700**	ug/l	5,135.00	2.2	4500	45	P	
51	**V**	1	**21.570**	ug/l	1,078.50	2.7	4500	45	P	
52	**Cr**	1	**8.760**	ug/l	438.00	2.3	4500	45	P	
55	**Mn**	1	**21.950**	ug/l	1,097.50	3.8	4500	45	P	
57	**Fe**	1	**468.100**	ug/l	23,405.00	2.7	450000	74	P	
59	**Co**	1	**21.020**	ug/l	1,051.00	2.9	4500	45	P	
60	**Ni**	1	**21.790**	ug/l	1,089.50	2.9	4500	45	P	
63	**Cu**	1	**11.400**	ug/l	570.00	3.4	4500	45	P	
66	**Zn**	1	**21.850**	ug/l	1,092.50	2.7	4500	74	P	
75	**As**	1	**87.820**	ug/l	4,391.00	2.8	4500	45	P	
78	**Se**	1	**86.200**	ug/l	4,310.00	1.6	4500	45	P	
88	**Sr**	1	**44.450**	ug/l	2,222.50	1.9	4500	45	P	
95	**Mo**	1	**104.900**	ug/l	5,245.00	1.5	4500	74	P	
109	**Ag**	1	**12.440**	ug/l	622.00	0.9	4500	103	P	
111	**Cd**	1	**2.061**	ug/l	103.05	7.3	4500	103	P	
118	**Sn**	1	**103.800**	ug/l	5,190.00	1.2	4500	103	P	
123	**Sb**	1	**62.670**	ug/l	3,133.50	1.3	4500	103	P	
135	**Ba**	1	**84.870**	ug/l	4,243.50	1.0	4500	103	P	
200	**Hg**	1	**0.993**	ug/l	49.63	2.0	45	209	P	
205	**Tl**	1	**84.900**	ug/l	4,245.00	4.5	4500	165	A	
208	**Pb**	1	**21.050**	ug/l	1,052.50	1.8	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.11	28.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	85478	1.24	81580	**104.8**	30	-	125	
45	Sc	1	1578681	2.49	1568000	**100.7**	30	-	125	
74	Ge	1	3885772	1.16	3965000	**98.0**	30	-	125	
103	Rh	1	5473451	0.63	5756000	**95.1**	30	-	125	
165	Ho	1	2624879	0.97	2702000	**97.1**	30	-	125	
175	Lu	1	2281145	0.76	2349000	**97.1**	30	-	125	
209	Bi	1	2828157	1.25	2910000	**97.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\060SMPL.D\060SMPL.D#
Date Acquired: Sep 15 2011 07:33 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95373/17-A Vial Number: 3103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.163**	ug/l	108.15	0.8	900	6	P	
23	**Na**	1	**440.000**	ug/l	22,000.00	1.6	450000	6	A	
24	**Mg**	1	**438.900**	ug/l	21,945.00	0.8	450000	6	P	
27	**Al**	1	**90.650**	ug/l	4,532.50	1.4	450000	6	P	
31	**P**	1	**418.600**	ug/l	20,930.00	1.3	450000	6	P	
39	**K**	1	**437.200**	ug/l	21,860.00	1.9	450000	45	P	
44	**Ca**	1	**402.800**	ug/l	20,140.00	1.1	450000	45	P	
47	**Ti**	1	**103.600**	ug/l	5,180.00	1.2	4500	45	P	
51	**V**	1	**21.620**	ug/l	1,081.00	3.1	4500	45	P	
52	**Cr**	1	**8.694**	ug/l	434.70	2.9	4500	45	P	
55	**Mn**	1	**22.060**	ug/l	1,103.00	1.8	4500	45	P	
57	**Fe**	1	**470.500**	ug/l	23,525.00	0.8	450000	74	P	
59	**Co**	1	**21.200**	ug/l	1,060.00	1.6	4500	45	P	
60	**Ni**	1	**22.250**	ug/l	1,112.50	1.5	4500	45	P	
63	**Cu**	1	**11.420**	ug/l	571.00	2.6	4500	45	P	
66	**Zn**	1	**22.150**	ug/l	1,107.50	2.7	4500	74	P	
75	**As**	1	**89.280**	ug/l	4,464.00	2.3	4500	45	P	
78	**Se**	1	**86.950**	ug/l	4,347.50	2.5	4500	45	P	
88	**Sr**	1	**44.670**	ug/l	2,233.50	1.8	4500	45	P	
95	**Mo**	1	**107.000**	ug/l	5,350.00	0.8	4500	74	P	
109	**Ag**	1	**12.710**	ug/l	635.50	1.4	4500	103	P	
111	**Cd**	1	**2.104**	ug/l	105.20	3.2	4500	103	P	
118	**Sn**	1	**106.100**	ug/l	5,305.00	1.4	4500	103	P	
123	**Sb**	1	**64.140**	ug/l	3,207.00	0.9	4500	103	P	
135	**Ba**	1	**86.170**	ug/l	4,308.50	0.8	4500	103	P	
200	**Hg**	1	**1.035**	ug/l	51.75	3.0	45	209	P	
205	**Tl**	1	**87.450**	ug/l	4,372.50	6.0	4500	165	A	
208	**Pb**	1	**21.540**	ug/l	1,077.00	1.4	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.05	77.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	83632	0.76	81580	**102.5**	30	-	125	
45	Sc	1	1587373	2.28	1568000	**101.2**	30	-	125	
74	Ge	1	3909366	1.34	3965000	**98.6**	30	-	125	
103	Rh	1	5519998	0.55	5756000	**95.9**	30	-	125	
165	Ho	1	2666284	1.09	2702000	**98.7**	30	-	125	
175	Lu	1	2324626	1.54	2349000	**99.0**	30	-	125	
209	Bi	1	2840851	1.70	2910000	**97.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\061SMPL.D\061SMPL.D#
Date Acquired: Sep 15 2011 07:37 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-95373/18-A Vial Number: 3104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.560**	ug/l	971.20	2.2	900	6	P	
23	**Na**	1	**388.700**	ug/l	7,774.00	2.8	450000	6	M	
24	**Mg**	1	**1557.000**	ug/l	31,140.00	2.8	450000	6	A	
27	**Al**	1	**4351.000**	ug/l	87,020.00	2.3	450000	6	A	
31	**P**	1	**265.200**	ug/l	5,304.00	3.4	450000	6	P	
39	**K**	1	**1369.000**	ug/l	27,380.00	0.2	450000	45	A	
44	**Ca**	1	**3480.000**	ug/l	69,600.00	1.9	450000	45	P	
47	**Ti**	1	**112.700**	ug/l	2,254.00	4.0	4500	45	P	
51	**V**	1	**58.350**	ug/l	1,167.00	1.7	4500	45	P	
52	**Cr**	1	**48.570**	ug/l	971.40	2.1	4500	45	P	
55	**Mn**	1	**249.400**	ug/l	4,988.00	2.5	4500	45	A	
57	**Fe**	1	**7359.000**	ug/l	147,180.00	2.7	450000	74	A	
59	**Co**	1	**72.210**	ug/l	1,444.20	0.7	4500	45	M	
60	**Ni**	1	**59.020**	ug/l	1,180.40	2.2	4500	45	P	
63	**Cu**	1	**38.950**	ug/l	779.00	1.2	4500	45	P	
66	**Zn**	1	**155.800**	ug/l	3,116.00	1.6	4500	74	P	
75	**As**	1	**59.430**	ug/l	1,188.60	2.0	4500	45	P	
78	**Se**	1	**113.500**	ug/l	2,270.00	1.6	4500	45	P	
88	**Sr**	1	**60.010**	ug/l	1,200.20	1.1	4500	45	P	
95	**Mo**	1	**48.160**	ug/l	963.20	1.4	4500	74	P	
109	**Ag**	1	**26.300**	ug/l	526.00	0.6	4500	103	P	
111	**Cd**	1	**58.820**	ug/l	1,176.40	1.1	4500	103	P	
118	**Sn**	1	**71.560**	ug/l	1,431.20	1.1	4500	103	P	
123	**Sb**	1	**113.900**	ug/l	2,278.00	0.5	4500	103	P	
135	**Ba**	1	**170.000**	ug/l	3,400.00	1.3	4500	103	P	
200	**Hg**	1	**8.544**	ug/l	170.88	1.6	45	209	P	
205	**Tl**	1	**90.100**	ug/l	1,802.00	3.1	4500	165	A	
208	**Pb**	1	**85.560**	ug/l	1,711.20	1.5	4500	209	A	
238	**U**	1	**0.532**	ug/l	10.64	1.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	80603	2.23	81580	**98.8**	30	-	125	
45	Sc	1	1581686	1.48	1568000	**100.9**	30	-	125	
74	Ge	1	3935847	1.09	3965000	**99.3**	30	-	125	
103	Rh	1	5442395	0.96	5756000	**94.6**	30	-	125	
165	Ho	1	2704687	0.64	2702000	**100.1**	30	-	125	
175	Lu	1	2351496	0.33	2349000	**100.1**	30	-	125	
209	Bi	1	2786800	1.50	2910000	**95.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\062SMPL.D\062SMPL.D#
Date Acquired: Sep 15 2011 07:41 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.430**	ug/l	50.43	1.6	900	6	P	
23	**Na**	1	**4898.000**	ug/l	4,898.00	1.4	450000	6	A	
24	**Mg**	1	**4931.000**	ug/l	4,931.00	0.6	450000	6	A	
27	**Al**	1	**512.900**	ug/l	512.90	0.5	450000	6	P	
31	**P**	1	**4887.000**	ug/l	4,887.00	0.8	450000	6	P	
39	**K**	1	**4862.000**	ug/l	4,862.00	3.7	450000	45	A	
44	**Ca**	1	**4874.000**	ug/l	4,874.00	1.9	450000	45	P	
47	**Ti**	1	**49.160**	ug/l	49.16	1.9	4500	45	P	
51	**V**	1	**48.840**	ug/l	48.84	1.3	4500	45	P	
52	**Cr**	1	**48.390**	ug/l	48.39	2.4	4500	45	P	
55	**Mn**	1	**48.960**	ug/l	48.96	2.3	4500	45	P	
57	**Fe**	1	**5075.000**	ug/l	5,075.00	2.2	450000	74	A	
59	**Co**	1	**47.570**	ug/l	47.57	2.5	4500	45	P	
60	**Ni**	1	**49.030**	ug/l	49.03	1.9	4500	45	P	
63	**Cu**	1	**49.860**	ug/l	49.86	2.5	4500	45	P	
66	**Zn**	1	**49.110**	ug/l	49.11	2.3	4500	74	P	
75	**As**	1	**49.820**	ug/l	49.82	2.2	4500	45	P	
78	**Se**	1	**49.850**	ug/l	49.85	1.7	4500	45	P	
88	**Sr**	1	**49.730**	ug/l	49.73	1.1	4500	45	P	
95	**Mo**	1	**49.110**	ug/l	49.11	2.5	4500	74	P	
109	**Ag**	1	**47.500**	ug/l	47.50	1.7	4500	103	P	
111	**Cd**	1	**48.910**	ug/l	48.91	2.0	4500	103	P	
118	**Sn**	1	**49.010**	ug/l	49.01	2.3	4500	103	P	
123	**Sb**	1	**49.150**	ug/l	49.15	1.0	4500	103	P	
135	**Ba**	1	**49.070**	ug/l	49.07	1.5	4500	103	P	
200	**Hg**	1	**2.468**	ug/l	2.47	1.3	45	209	P	
205	**Tl**	1	**49.280**	ug/l	49.28	3.7	4500	165	A	
208	**Pb**	1	**47.720**	ug/l	47.72	2.2	4500	209	P	
238	**U**	1	**48.510**	ug/l	48.51	0.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	81334	0.96	81580	**99.7**	30	-	125	
45	Sc	1	1588216	2.65	1568000	**101.3**	30	-	125	
74	Ge	1	3882438	2.14	3965000	**97.9**	30	-	125	
103	Rh	1	5436673	1.74	5756000	**94.5**	30	-	125	
165	Ho	1	2673333	1.80	2702000	**98.9**	30	-	125	
175	Lu	1	2307648	2.54	2349000	**98.2**	30	-	125	
209	Bi	1	2794588	1.96	2910000	**96.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\063SMPL.D\063SMPL.D#
Date Acquired: Sep 15 2011 07:46 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.000**	ug/l	0.00	1749.0	900	6	P	
23	**Na**	1	**-1.525**	ug/l	-1.53	84.1	450000	6	P	
24	**Mg**	1	**0.746**	ug/l	0.75	10.3	450000	6	P	
27	**Al**	1	**-0.060**	ug/l	-0.06	174.2	450000	6	P	
31	**P**	1	**0.524**	ug/l	0.52	605.6	450000	6	P	
39	**K**	1	**-1.177**	ug/l	-1.18	270.4	450000	45	P	
44	**Ca**	1	**1.077**	ug/l	1.08	54.5	450000	45	P	
47	**Ti**	1	**0.018**	ug/l	0.02	112.9	4500	45	P	
51	**V**	1	**-0.115**	ug/l	-0.11	34.1	4500	45	P	
52	**Cr**	1	**0.000**	ug/l	0.00	26446.0	4500	45	P	
55	**Mn**	1	**0.022**	ug/l	0.02	21.7	4500	45	P	
57	**Fe**	1	**1.449**	ug/l	1.45	15.5	450000	74	P	
59	**Co**	1	**0.002**	ug/l	0.00	99.5	4500	45	P	
60	**Ni**	1	**0.013**	ug/l	0.01	115.1	4500	45	P	
63	**Cu**	1	**0.011**	ug/l	0.01	180.0	4500	45	P	
66	**Zn**	1	**-0.005**	ug/l	-0.01	171.7	4500	74	P	
75	**As**	1	**0.001**	ug/l	0.00	1164.8	4500	45	P	
78	**Se**	1	**0.043**	ug/l	0.04	53.9	4500	45	P	
88	**Sr**	1	**0.001**	ug/l	0.00	479.5	4500	45	P	
95	**Mo**	1	**0.151**	ug/l	0.15	3.1	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.00	261.7	4500	103	P	
111	**Cd**	1	**0.003**	ug/l	0.00	133.6	4500	103	P	
118	**Sn**	1	**0.298**	ug/l	0.30	18.6	4500	103	P	
123	**Sb**	1	**0.079**	ug/l	0.08	23.5	4500	103	P	
135	**Ba**	1	**0.005**	ug/l	0.01	176.0	4500	103	P	
200	**Hg**	1	**0.028**	ug/l	0.03	9.1	45	209	P	
205	**Tl**	1	**0.411**	ug/l	0.41	11.4	4500	165	P	
208	**Pb**	1	**0.001**	ug/l	0.00	1263.2	4500	209	P	
238	**U**	1	**0.013**	ug/l	0.01	3.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	82722	0.92	81580	**101.4**	30	-	125	
45	Sc	1	1573915	2.46	1568000	**100.4**	30	-	125	
74	Ge	1	3916594	1.10	3965000	**98.8**	30	-	125	
103	Rh	1	5606045	1.10	5756000	**97.4**	30	-	125	
165	Ho	1	2723859	1.45	2702000	**100.8**	30	-	125	
175	Lu	1	2287279	1.28	2349000	**97.4**	30	-	125	
209	Bi	1	2858972	1.95	2910000	**98.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\064SMPL.D\064SMPL.D#
Date Acquired: Sep 15 2011 07:50 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-14-G SD Vial Number: 3201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.293**	ug/l	14.63	8.7	900	6	P	
23	**Na**	1	**45.480**	ug/l	2,274.00	2.1	450000	6	P	
24	**Mg**	1	**2316.000**	ug/l	115,800.00	1.6	450000	6	A	
27	**Al**	1	**9211.000**	ug/l	460,550.00	3.7	450000	6	A	
31	**P**	1	**269.800**	ug/l	13,490.00	3.7	450000	6	P	
39	**K**	1	**504.300**	ug/l	25,215.00	3.8	450000	45	P	
44	**Ca**	1	**1840.000**	ug/l	92,000.00	2.5	450000	45	P	
47	**Ti**	1	**573.500**	ug/l	28,675.00	2.5	4500	45	P	
51	**V**	1	**28.410**	ug/l	1,420.50	3.2	4500	45	P	
52	**Cr**	1	**8.686**	ug/l	434.30	2.5	4500	45	P	
55	**Mn**	1	**280.300**	ug/l	14,015.00	1.4	4500	45	A	
57	**Fe**	1	**14060.000**	ug/l	703,000.00	1.8	450000	74	A	
59	**Co**	1	**5.326**	ug/l	266.30	2.5	4500	45	P	
60	**Ni**	1	**8.311**	ug/l	415.55	1.7	4500	45	P	
63	**Cu**	1	**9.859**	ug/l	492.95	4.9	4500	45	P	
66	**Zn**	1	**33.210**	ug/l	1,660.50	1.3	4500	74	P	
75	**As**	1	**2.391**	ug/l	119.55	3.7	4500	45	P	
78	**Se**	1	**0.216**	ug/l	10.80	30.7	4500	45	P	
88	**Sr**	1	**17.080**	ug/l	854.00	2.6	4500	45	P	
95	**Mo**	1	**0.199**	ug/l	9.96	12.0	4500	74	P	
109	**Ag**	1	**0.013**	ug/l	0.67	49.4	4500	103	P	
111	**Cd**	1	**0.111**	ug/l	5.57	10.4	4500	103	P	
118	**Sn**	1	**0.682**	ug/l	34.10	3.0	4500	103	P	
123	**Sb**	1	**0.122**	ug/l	6.09	4.4	4500	103	P	
135	**Ba**	1	**74.240**	ug/l	3,712.00	1.7	4500	103	P	
200	**Hg**	1	**0.029**	ug/l	1.47	19.7	45	209	P	
205	**Tl**	1	**0.238**	ug/l	11.91	15.3	4500	165	P	
208	**Pb**	1	**4.544**	ug/l	227.20	2.0	4500	209	P	
238	**U**	1	**0.318**	ug/l	15.88	3.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77813	0.67	81580	**95.4**	30	-	125	
45	Sc	1	1596217	2.87	1568000	**101.8**	30	-	125	
74	Ge	1	3924821	1.20	3965000	**99.0**	30	-	125	
103	Rh	1	5542729	1.05	5756000	**96.3**	30	-	125	
165	Ho	1	2710571	1.23	2702000	**100.3**	30	-	125	
175	Lu	1	2337921	0.44	2349000	**99.5**	30	-	125	
209	Bi	1	2763836	1.57	2910000	**95.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\065SMPL.D\065SMPL.D#
Date Acquired: Sep 15 2011 07:55 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-14-G Vial Number: 3202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.657**	ug/l	16.57	4.2	900	6	P	
23	**Na**	1	**222.000**	ug/l	2,220.00	2.9	450000	6	P	
24	**Mg**	1	**11760.000**	ug/l	117,600.00	1.5	450000	6	A	
27	**Al**	1	**46300.000**	ug/l	463,000.00	2.5	450000	6	A	
31	**P**	1	**1383.000**	ug/l	13,830.00	0.8	450000	6	P	
39	**K**	1	**2465.000**	ug/l	24,650.00	2.0	450000	45	A	
44	**Ca**	1	**9064.000**	ug/l	90,640.00	2.5	450000	45	P	
47	**Ti**	1	**2981.000**	ug/l	29,810.00	2.7	4500	45	A	
51	**V**	1	**146.100**	ug/l	1,461.00	2.2	4500	45	A	
52	**Cr**	1	**42.690**	ug/l	426.90	2.1	4500	45	P	
55	**Mn**	1	**1334.000**	ug/l	13,340.00	1.1	4500	45	A	
57	**Fe**	1	**70580.000**	ug/l	705,800.00	0.6	450000	74	A	
59	**Co**	1	**25.780**	ug/l	257.80	2.1	4500	45	P	
60	**Ni**	1	**40.200**	ug/l	402.00	2.8	4500	45	P	
63	**Cu**	1	**47.590**	ug/l	475.90	2.8	4500	45	P	
66	**Zn**	1	**170.100**	ug/l	1,701.00	0.1	4500	74	P	
75	**As**	1	**11.850**	ug/l	118.50	2.7	4500	45	P	
78	**Se**	1	**1.117**	ug/l	11.17	12.1	4500	45	P	
88	**Sr**	1	**84.340**	ug/l	843.40	2.6	4500	45	P	
95	**Mo**	1	**0.741**	ug/l	7.41	6.7	4500	74	P	
109	**Ag**	1	**0.068**	ug/l	0.68	2.8	4500	103	P	
111	**Cd**	1	**0.560**	ug/l	5.60	4.3	4500	103	P	
118	**Sn**	1	**2.672**	ug/l	26.72	1.2	4500	103	P	
123	**Sb**	1	**0.443**	ug/l	4.43	7.6	4500	103	P	
135	**Ba**	1	**381.700**	ug/l	3,817.00	1.7	4500	103	P	
200	**Hg**	1	**0.063**	ug/l	0.63	2.5	45	209	P	
205	**Tl**	1	**0.424**	ug/l	4.24	7.6	4500	165	P	
208	**Pb**	1	**22.730**	ug/l	227.30	2.0	4500	209	P	
238	**U**	1	**1.592**	ug/l	15.92	1.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	73885	2.97	81580	**90.6**	30	-	125	
45	Sc	1	1585590	2.21	1568000	**101.1**	30	-	125	
74	Ge	1	3762014	0.91	3965000	**94.9**	30	-	125	
103	Rh	1	5205519	1.48	5756000	**90.4**	30	-	125	
165	Ho	1	2644237	0.52	2702000	**97.9**	30	-	125	
175	Lu	1	2278143	1.86	2349000	**97.0**	30	-	125	
209	Bi	1	2682843	1.30	2910000	**92.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\066SMPL.D\066SMPL.D#
Date Acquired: Sep 15 2011 07:59 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-14-H DU Vial Number: 3203
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.524**	ug/l	15.24	13.7	900	6	P	
23	**Na**	1	**216.400**	ug/l	2,164.00	2.8	450000	6	P	
24	**Mg**	1	**11380.000**	ug/l	113,800.00	0.9	450000	6	A	
27	**Al**	1	**44980.000**	ug/l	449,800.00	0.5	450000	6	A	
31	**P**	1	**1325.000**	ug/l	13,250.00	2.0	450000	6	P	
39	**K**	1	**2397.000**	ug/l	23,970.00	1.8	450000	45	A	
44	**Ca**	1	**8715.000**	ug/l	87,150.00	1.5	450000	45	P	
47	**Ti**	1	**2831.000**	ug/l	28,310.00	1.7	4500	45	A	
51	**V**	1	**141.900**	ug/l	1,419.00	0.8	4500	45	A	
52	**Cr**	1	**41.480**	ug/l	414.80	2.1	4500	45	P	
55	**Mn**	1	**1297.000**	ug/l	12,970.00	0.4	4500	45	A	
57	**Fe**	1	**67580.000**	ug/l	675,800.00	0.3	450000	74	A	
59	**Co**	1	**24.670**	ug/l	246.70	2.2	4500	45	P	
60	**Ni**	1	**38.620**	ug/l	386.20	2.1	4500	45	P	
63	**Cu**	1	**45.550**	ug/l	455.50	2.2	4500	45	P	
66	**Zn**	1	**164.400**	ug/l	1,644.00	1.4	4500	74	P	
75	**As**	1	**11.560**	ug/l	115.60	1.7	4500	45	P	
78	**Se**	1	**1.185**	ug/l	11.85	3.2	4500	45	P	
88	**Sr**	1	**81.310**	ug/l	813.10	2.1	4500	45	P	
95	**Mo**	1	**0.742**	ug/l	7.42	2.0	4500	74	P	
109	**Ag**	1	**0.055**	ug/l	0.55	18.1	4500	103	P	
111	**Cd**	1	**0.493**	ug/l	4.93	5.4	4500	103	P	
118	**Sn**	1	**2.568**	ug/l	25.68	1.1	4500	103	P	
123	**Sb**	1	**0.434**	ug/l	4.34	4.4	4500	103	P	
135	**Ba**	1	**375.700**	ug/l	3,757.00	0.9	4500	103	P	
200	**Hg**	1	**0.053**	ug/l	0.53	7.4	45	209	P	
205	**Tl**	1	**0.379**	ug/l	3.79	6.3	4500	165	P	
208	**Pb**	1	**22.240**	ug/l	222.40	1.3	4500	209	P	
238	**U**	1	**1.564**	ug/l	15.64	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	73763	1.01	81580	**90.4**	30	-	125	
45	Sc	1	1587078	1.20	1568000	**101.2**	30	-	125	
74	Ge	1	3726845	0.92	3965000	**94.0**	30	-	125	
103	Rh	1	5153942	0.40	5756000	**89.5**	30	-	125	
165	Ho	1	2635434	1.84	2702000	**97.5**	30	-	125	
175	Lu	1	2267260	1.38	2349000	**96.5**	30	-	125	
209	Bi	1	2651692	1.34	2910000	**91.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\067SMPL.D\067SMPL.D#
Date Acquired: Sep 15 2011 08:03 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-14-I MS Vial Number: 3204
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.650**	ug/l	132.50	4.8	900	6	P	
23	**Na**	1	**530.600**	ug/l	26,530.00	2.5	450000	6	A	
24	**Mg**	1	**3122.000**	ug/l	156,100.00	1.2	450000	6	A	
27	**Al**	1	**11360.000**	ug/l	568,000.00	0.2	450000	6	A	
31	**P**	1	**744.100**	ug/l	37,205.00	0.6	450000	6	P	
39	**K**	1	**1023.000**	ug/l	51,150.00	2.1	450000	45	A	
44	**Ca**	1	**2346.000**	ug/l	117,300.00	0.6	450000	45	P	
47	**Ti**	1	**773.300**	ug/l	38,665.00	2.1	4500	45	P	
51	**V**	1	**54.410**	ug/l	2,720.50	2.1	4500	45	P	
52	**Cr**	1	**18.330**	ug/l	916.50	2.0	4500	45	P	
55	**Mn**	1	**358.200**	ug/l	17,910.00	2.1	4500	45	A	
57	**Fe**	1	**16040.000**	ug/l	802,000.00	0.8	450000	74	A	
59	**Co**	1	**27.650**	ug/l	1,382.50	3.1	4500	45	P	
60	**Ni**	1	**31.930**	ug/l	1,596.50	2.8	4500	45	P	
63	**Cu**	1	**22.400**	ug/l	1,120.00	3.1	4500	45	P	
66	**Zn**	1	**54.440**	ug/l	2,722.00	1.1	4500	74	P	
75	**As**	1	**93.730**	ug/l	4,686.50	2.3	4500	45	P	
78	**Se**	1	**88.080**	ug/l	4,404.00	2.3	4500	45	P	
88	**Sr**	1	**65.300**	ug/l	3,265.00	2.7	4500	45	P	
95	**Mo**	1	**105.700**	ug/l	5,285.00	1.1	4500	74	P	
109	**Ag**	1	**12.580**	ug/l	629.00	1.7	4500	103	P	
111	**Cd**	1	**2.313**	ug/l	115.65	3.1	4500	103	P	
118	**Sn**	1	**105.900**	ug/l	5,295.00	1.6	4500	103	P	
123	**Sb**	1	**30.790**	ug/l	1,539.50	1.5	4500	103	P	
135	**Ba**	1	**167.600**	ug/l	8,380.00	1.3	4500	103	P	
200	**Hg**	1	**1.051**	ug/l	52.55	3.0	45	209	P	
205	**Tl**	1	**84.390**	ug/l	4,219.50	3.0	4500	165	A	
208	**Pb**	1	**26.080**	ug/l	1,304.00	1.3	4500	209	P	
238	**U**	1	**0.323**	ug/l	16.13	0.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74659	1.16	81580	**91.5**	30	-	125	
45	Sc	1	1528123	2.74	1568000	**97.5**	30	-	125	
74	Ge	1	3830384	1.13	3965000	**96.6**	30	-	125	
103	Rh	1	5390682	1.56	5756000	**93.7**	30	-	125	
165	Ho	1	2649809	2.17	2702000	**98.1**	30	-	125	
175	Lu	1	2281108	0.93	2349000	**97.1**	30	-	125	
209	Bi	1	2713152	1.17	2910000	**93.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\068SMPL.D\068SMPL.D#
Date Acquired: Sep 15 2011 08:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-14-J MSD Vial Number: 3205
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.781**	ug/l	139.05	3.3	900	6	P	
23	**Na**	1	**514.800**	ug/l	25,740.00	1.4	450000	6	A	
24	**Mg**	1	**3037.000**	ug/l	151,850.00	0.7	450000	6	A	
27	**Al**	1	**11250.000**	ug/l	562,500.00	2.3	450000	6	A	
31	**P**	1	**727.000**	ug/l	36,350.00	2.0	450000	6	P	
39	**K**	1	**982.500**	ug/l	49,125.00	2.1	450000	45	A	
44	**Ca**	1	**2267.000**	ug/l	113,350.00	3.5	450000	45	P	
47	**Ti**	1	**747.600**	ug/l	37,380.00	3.0	4500	45	P	
51	**V**	1	**52.130**	ug/l	2,606.50	3.7	4500	45	P	
52	**Cr**	1	**17.590**	ug/l	879.50	3.6	4500	45	P	
55	**Mn**	1	**346.600**	ug/l	17,330.00	3.2	4500	45	A	
57	**Fe**	1	**16050.000**	ug/l	802,500.00	2.3	450000	74	A	
59	**Co**	1	**26.630**	ug/l	1,331.50	3.3	4500	45	P	
60	**Ni**	1	**30.630**	ug/l	1,531.50	5.1	4500	45	P	
63	**Cu**	1	**21.500**	ug/l	1,075.00	5.7	4500	45	P	
66	**Zn**	1	**53.690**	ug/l	2,684.50	2.1	4500	74	P	
75	**As**	1	**90.360**	ug/l	4,518.00	4.5	4500	45	P	
78	**Se**	1	**84.970**	ug/l	4,248.50	2.5	4500	45	P	
88	**Sr**	1	**62.800**	ug/l	3,140.00	3.8	4500	45	P	
95	**Mo**	1	**104.900**	ug/l	5,245.00	2.0	4500	74	P	
109	**Ag**	1	**12.510**	ug/l	625.50	2.4	4500	103	P	
111	**Cd**	1	**2.298**	ug/l	114.90	2.1	4500	103	P	
118	**Sn**	1	**105.900**	ug/l	5,295.00	2.2	4500	103	P	
123	**Sb**	1	**30.690**	ug/l	1,534.50	1.6	4500	103	P	
135	**Ba**	1	**168.800**	ug/l	8,440.00	1.4	4500	103	P	
200	**Hg**	1	**1.042**	ug/l	52.10	0.9	45	209	P	
205	**Tl**	1	**84.490**	ug/l	4,224.50	3.1	4500	165	A	
208	**Pb**	1	**25.790**	ug/l	1,289.50	2.0	4500	209	P	
238	**U**	1	**0.320**	ug/l	16.02	1.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74202	2.66	81580	**91.0**	30	-	125	
45	Sc	1	1578896	3.86	1568000	**100.7**	30	-	125	
74	Ge	1	3862672	1.35	3965000	**97.4**	30	-	125	
103	Rh	1	5391563	1.28	5756000	**93.7**	30	-	125	
165	Ho	1	2649879	1.07	2702000	**98.1**	30	-	125	
175	Lu	1	2284697	1.39	2349000	**97.3**	30	-	125	
209	Bi	1	2740453	1.14	2910000	**94.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\069SMPL.D\069SMPL.D#
Date Acquired: Sep 15 2011 08:12 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-14-G PDS Vial Number: 3206
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.615**	ug/l	130.75	4.6	900	6	P	
23	**Na**	1	**549.300**	ug/l	27,465.00	0.9	450000	6	A	
24	**Mg**	1	**3171.000**	ug/l	158,550.00	1.3	450000	6	A	
27	**Al**	1	**11840.000**	ug/l	592,000.00	0.6	450000	6	A	
31	**P**	1	**761.300**	ug/l	38,065.00	1.7	450000	6	P	
39	**K**	1	**1031.000**	ug/l	51,550.00	2.7	450000	45	A	
44	**Ca**	1	**2360.000**	ug/l	118,000.00	0.9	450000	45	P	
47	**Ti**	1	**786.300**	ug/l	39,315.00	2.2	4500	45	P	
51	**V**	1	**54.820**	ug/l	2,741.00	2.0	4500	45	P	
52	**Cr**	1	**18.470**	ug/l	923.50	1.7	4500	45	P	
55	**Mn**	1	**363.000**	ug/l	18,150.00	2.0	4500	45	A	
57	**Fe**	1	**15990.000**	ug/l	799,500.00	1.3	450000	74	A	
59	**Co**	1	**27.910**	ug/l	1,395.50	2.1	4500	45	P	
60	**Ni**	1	**32.490**	ug/l	1,624.50	1.8	4500	45	P	
63	**Cu**	1	**22.870**	ug/l	1,143.50	1.6	4500	45	P	
66	**Zn**	1	**54.490**	ug/l	2,724.50	1.2	4500	74	P	
75	**As**	1	**94.720**	ug/l	4,736.00	1.9	4500	45	P	
78	**Se**	1	**89.470**	ug/l	4,473.50	2.1	4500	45	P	
88	**Sr**	1	**65.860**	ug/l	3,293.00	1.9	4500	45	P	
95	**Mo**	1	**107.400**	ug/l	5,370.00	0.4	4500	74	P	
109	**Ag**	1	**12.880**	ug/l	644.00	1.0	4500	103	P	
111	**Cd**	1	**2.338**	ug/l	116.90	6.4	4500	103	P	
118	**Sn**	1	**108.400**	ug/l	5,420.00	1.4	4500	103	P	
123	**Sb**	1	**31.350**	ug/l	1,567.50	1.6	4500	103	P	
135	**Ba**	1	**172.400**	ug/l	8,620.00	1.8	4500	103	P	
200	**Hg**	1	**1.078**	ug/l	53.90	0.9	45	209	P	
205	**Tl**	1	**86.650**	ug/l	4,332.50	4.0	4500	165	A	
208	**Pb**	1	**26.460**	ug/l	1,323.00	1.3	4500	209	P	
238	**U**	1	**0.332**	ug/l	16.61	5.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	73984	1.23	81580	**90.7**	30	-	125	
45	Sc	1	1574519	2.33	1568000	**100.4**	30	-	125	
74	Ge	1	3936208	1.29	3965000	**99.3**	30	-	125	
103	Rh	1	5523221	0.91	5756000	**96.0**	30	-	125	
165	Ho	1	2714611	1.74	2702000	**100.5**	30	-	125	
175	Lu	1	2347085	1.87	2349000	**99.9**	30	-	125	
209	Bi	1	2776821	1.24	2910000	**95.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\070SMPL.D\070SMPL.D#
Date Acquired: Sep 15 2011 08:16 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.850**	ug/l	50.85	1.0	900	6	P	
23	**Na**	1	**5029.000**	ug/l	5,029.00	1.3	450000	6	A	
24	**Mg**	1	**5013.000**	ug/l	5,013.00	2.9	450000	6	A	
27	**Al**	1	**517.400**	ug/l	517.40	1.0	450000	6	P	
31	**P**	1	**5048.000**	ug/l	5,048.00	0.5	450000	6	P	
39	**K**	1	**4873.000**	ug/l	4,873.00	3.5	450000	45	A	
44	**Ca**	1	**4947.000**	ug/l	4,947.00	3.1	450000	45	P	
47	**Ti**	1	**49.270**	ug/l	49.27	2.5	4500	45	P	
51	**V**	1	**49.840**	ug/l	49.84	3.1	4500	45	P	
52	**Cr**	1	**49.250**	ug/l	49.25	2.9	4500	45	P	
55	**Mn**	1	**49.910**	ug/l	49.91	2.9	4500	45	P	
57	**Fe**	1	**4971.000**	ug/l	4,971.00	1.1	450000	74	A	
59	**Co**	1	**48.540**	ug/l	48.54	3.3	4500	45	P	
60	**Ni**	1	**50.140**	ug/l	50.14	3.2	4500	45	P	
63	**Cu**	1	**50.990**	ug/l	50.99	3.2	4500	45	P	
66	**Zn**	1	**48.850**	ug/l	48.85	1.8	4500	74	P	
75	**As**	1	**51.260**	ug/l	51.26	2.6	4500	45	P	
78	**Se**	1	**50.610**	ug/l	50.61	2.8	4500	45	P	
88	**Sr**	1	**51.110**	ug/l	51.11	3.7	4500	45	P	
95	**Mo**	1	**48.940**	ug/l	48.94	2.5	4500	74	P	
109	**Ag**	1	**47.840**	ug/l	47.84	0.9	4500	103	P	
111	**Cd**	1	**48.990**	ug/l	48.99	0.4	4500	103	P	
118	**Sn**	1	**48.840**	ug/l	48.84	0.5	4500	103	P	
123	**Sb**	1	**48.920**	ug/l	48.92	0.8	4500	103	P	
135	**Ba**	1	**48.690**	ug/l	48.69	1.4	4500	103	P	
200	**Hg**	1	**2.434**	ug/l	2.43	2.5	45	209	P	
205	**Tl**	1	**49.170**	ug/l	49.17	2.3	4500	165	A	
208	**Pb**	1	**48.110**	ug/l	48.11	2.5	4500	209	P	
238	**U**	1	**49.220**	ug/l	49.22	2.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79198	0.17	81580	**97.1**	30	-	125	
45	Sc	1	1578579	3.08	1568000	**100.7**	30	-	125	
74	Ge	1	3964402	1.30	3965000	**100.0**	30	-	125	
103	Rh	1	5533348	0.48	5756000	**96.1**	30	-	125	
165	Ho	1	2686983	1.82	2702000	**99.4**	30	-	125	
175	Lu	1	2324097	0.57	2349000	**98.9**	30	-	125	
209	Bi	1	2797415	2.44	2910000	**96.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\071SMPL.D\071SMPL.D#
Date Acquired: Sep 15 2011 08:21 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.020**	ug/l	0.02	189.7	900	6	P	
23	**Na**	1	**8.530**	ug/l	8.53	33.0	450000	6	P	
24	**Mg**	1	**2.325**	ug/l	2.33	102.8	450000	6	P	
27	**Al**	1	**1.211**	ug/l	1.21	123.0	450000	6	P	
31	**P**	1	**3.321**	ug/l	3.32	116.4	450000	6	P	
39	**K**	1	**-0.828**	ug/l	-0.83	14.5	450000	45	P	
44	**Ca**	1	**2.844**	ug/l	2.84	84.0	450000	45	P	
47	**Ti**	1	**0.226**	ug/l	0.23	42.0	4500	45	P	
51	**V**	1	**-0.139**	ug/l	-0.14	17.4	4500	45	P	
52	**Cr**	1	**0.021**	ug/l	0.02	66.8	4500	45	P	
55	**Mn**	1	**0.075**	ug/l	0.08	77.1	4500	45	P	
57	**Fe**	1	**4.633**	ug/l	4.63	75.2	450000	74	P	
59	**Co**	1	**0.017**	ug/l	0.02	103.2	4500	45	P	
60	**Ni**	1	**0.022**	ug/l	0.02	96.1	4500	45	P	
63	**Cu**	1	**0.009**	ug/l	0.01	333.7	4500	45	P	
66	**Zn**	1	**0.007**	ug/l	0.01	65.7	4500	74	P	
75	**As**	1	**0.033**	ug/l	0.03	87.6	4500	45	P	
78	**Se**	1	**0.045**	ug/l	0.04	172.0	4500	45	P	
88	**Sr**	1	**0.030**	ug/l	0.03	94.6	4500	45	P	
95	**Mo**	1	**0.173**	ug/l	0.17	32.6	4500	74	P	
109	**Ag**	1	**0.021**	ug/l	0.02	130.7	4500	103	P	
111	**Cd**	1	**0.014**	ug/l	0.01	137.6	4500	103	P	
118	**Sn**	1	**0.297**	ug/l	0.30	28.2	4500	103	P	
123	**Sb**	1	**0.079**	ug/l	0.08	38.9	4500	103	P	
135	**Ba**	1	**0.052**	ug/l	0.05	80.7	4500	103	P	
200	**Hg**	1	**0.014**	ug/l	0.01	12.2	45	209	P	
205	**Tl**	1	**0.465**	ug/l	0.46	12.0	4500	165	P	
208	**Pb**	1	**0.015**	ug/l	0.01	175.9	4500	209	P	
238	**U**	1	**0.024**	ug/l	0.02	88.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76544	0.03	81580	**93.8**	30	-	125	
45	Sc	1	1547028	1.46	1568000	**98.7**	30	-	125	
74	Ge	1	3946076	1.12	3965000	**99.5**	30	-	125	
103	Rh	1	5628227	1.78	5756000	**97.8**	30	-	125	
165	Ho	1	2676495	1.34	2702000	**99.1**	30	-	125	
175	Lu	1	2325021	0.19	2349000	**99.0**	30	-	125	
209	Bi	1	2870669	1.62	2910000	**98.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\072SMPL.D\072SMPL.D#
Date Acquired: Sep 15 2011 08:25 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-9-C Vial Number: 3301
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.902**	ug/l	19.02	2.8	900	6	P	
23	**Na**	1	**646.900**	ug/l	6,469.00	1.2	450000	6	A	
24	**Mg**	1	**14570.000**	ug/l	145,700.00	1.9	450000	6	A	
27	**Al**	1	**38860.000**	ug/l	388,600.00	0.9	450000	6	A	
31	**P**	1	**1724.000**	ug/l	17,240.00	1.5	450000	6	P	
39	**K**	1	**1747.000**	ug/l	17,470.00	1.2	450000	45	A	
44	**Ca**	1	**11850.000**	ug/l	118,500.00	1.1	450000	45	P	
47	**Ti**	1	**3312.000**	ug/l	33,120.00	1.5	4500	45	A	
51	**V**	1	**184.200**	ug/l	1,842.00	0.8	4500	45	A	
52	**Cr**	1	**50.340**	ug/l	503.40	0.4	4500	45	P	
55	**Mn**	1	**1599.000**	ug/l	15,990.00	1.0	4500	45	A	
57	**Fe**	1	**77620.000**	ug/l	776,200.00	0.5	450000	74	A	
59	**Co**	1	**31.060**	ug/l	310.60	0.6	4500	45	P	
60	**Ni**	1	**47.100**	ug/l	471.00	1.1	4500	45	P	
63	**Cu**	1	**60.400**	ug/l	604.00	1.0	4500	45	P	
66	**Zn**	1	**151.200**	ug/l	1,512.00	0.7	4500	74	P	
75	**As**	1	**16.910**	ug/l	169.10	0.7	4500	45	P	
78	**Se**	1	**1.511**	ug/l	15.11	4.3	4500	45	P	
88	**Sr**	1	**105.700**	ug/l	1,057.00	2.5	4500	45	M	
95	**Mo**	1	**1.086**	ug/l	10.86	6.7	4500	74	P	
109	**Ag**	1	**0.132**	ug/l	1.32	5.1	4500	103	P	
111	**Cd**	1	**0.756**	ug/l	7.56	6.0	4500	103	P	
118	**Sn**	1	**2.753**	ug/l	27.53	2.3	4500	103	P	
123	**Sb**	1	**0.519**	ug/l	5.19	1.1	4500	103	P	
135	**Ba**	1	**393.600**	ug/l	3,936.00	2.2	4500	103	P	
200	**Hg**	1	**0.077**	ug/l	0.77	5.2	45	209	P	
205	**Tl**	1	**0.523**	ug/l	5.23	7.1	4500	165	P	
208	**Pb**	1	**23.890**	ug/l	238.90	1.5	4500	209	P	
238	**U**	1	**1.489**	ug/l	14.89	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72138	1.04	81580	**88.4**	30	-	125	
45	Sc	1	1574888	0.82	1568000	**100.4**	30	-	125	
74	Ge	1	3768144	0.59	3965000	**95.0**	30	-	125	
103	Rh	1	5270689	1.91	5756000	**91.6**	30	-	125	
165	Ho	1	2646135	2.09	2702000	**97.9**	30	-	125	
175	Lu	1	2276178	1.19	2349000	**96.9**	30	-	125	
209	Bi	1	2642304	1.21	2910000	**90.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\073SMPL.D\073SMPL.D#
Date Acquired: Sep 15 2011 08:29 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-10-C Vial Number: 3302
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.873**	ug/l	18.73	4.4	900	6	P	
23	**Na**	1	**906.300**	ug/l	9,063.00	2.3	450000	6	A	
24	**Mg**	1	**15160.000**	ug/l	151,600.00	0.9	450000	6	A	
27	**Al**	1	**38190.000**	ug/l	381,900.00	0.8	450000	6	A	
31	**P**	1	**1728.000**	ug/l	17,280.00	1.2	450000	6	P	
39	**K**	1	**1961.000**	ug/l	19,610.00	1.3	450000	45	A	
44	**Ca**	1	**11320.000**	ug/l	113,200.00	0.6	450000	45	P	
47	**Ti**	1	**3154.000**	ug/l	31,540.00	0.5	4500	45	A	
51	**V**	1	**157.700**	ug/l	1,577.00	1.2	4500	45	A	
52	**Cr**	1	**46.460**	ug/l	464.60	1.1	4500	45	P	
55	**Mn**	1	**1255.000**	ug/l	12,550.00	1.0	4500	45	A	
57	**Fe**	1	**74730.000**	ug/l	747,300.00	0.5	450000	74	A	
59	**Co**	1	**27.190**	ug/l	271.90	0.8	4500	45	P	
60	**Ni**	1	**41.320**	ug/l	413.20	1.6	4500	45	P	
63	**Cu**	1	**52.330**	ug/l	523.30	1.4	4500	45	P	
66	**Zn**	1	**159.500**	ug/l	1,595.00	0.5	4500	74	P	
75	**As**	1	**13.980**	ug/l	139.80	1.0	4500	45	P	
78	**Se**	1	**1.537**	ug/l	15.37	2.2	4500	45	P	
88	**Sr**	1	**97.410**	ug/l	974.10	1.4	4500	45	P	
95	**Mo**	1	**0.806**	ug/l	8.06	1.7	4500	74	P	
109	**Ag**	1	**0.110**	ug/l	1.10	3.0	4500	103	P	
111	**Cd**	1	**0.715**	ug/l	7.15	5.2	4500	103	P	
118	**Sn**	1	**2.714**	ug/l	27.14	1.8	4500	103	P	
123	**Sb**	1	**0.413**	ug/l	4.13	4.7	4500	103	P	
135	**Ba**	1	**354.000**	ug/l	3,540.00	1.9	4500	103	P	
200	**Hg**	1	**0.065**	ug/l	0.65	3.6	45	209	P	
205	**Tl**	1	**0.432**	ug/l	4.32	12.3	4500	165	P	
208	**Pb**	1	**23.370**	ug/l	233.70	1.3	4500	209	P	
238	**U**	1	**1.301**	ug/l	13.01	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69965	1.20	81580	**85.8**	30	-	125	
45	Sc	1	1558351	0.66	1568000	**99.4**	30	-	125	
74	Ge	1	3697243	0.12	3965000	**93.2**	30	-	125	
103	Rh	1	5187340	1.34	5756000	**90.1**	30	-	125	
165	Ho	1	2674441	0.78	2702000	**99.0**	30	-	125	
175	Lu	1	2281445	0.75	2349000	**97.1**	30	-	125	
209	Bi	1	2672789	0.94	2910000	**91.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\074SMPL.D\074SMPL.D#
Date Acquired: Sep 15 2011 08:34 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-11-C Vial Number: 3303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.334**	ug/l	13.34	3.9	900	6	P	
23	**Na**	1	**666.800**	ug/l	6,668.00	3.2	450000	6	A	
24	**Mg**	1	**9313.000**	ug/l	93,130.00	1.5	450000	6	A	
27	**Al**	1	**30500.000**	ug/l	305,000.00	2.9	450000	6	A	
31	**P**	1	**2114.000**	ug/l	21,140.00	1.7	450000	6	P	
39	**K**	1	**1832.000**	ug/l	18,320.00	3.0	450000	45	A	
44	**Ca**	1	**9457.000**	ug/l	94,570.00	2.2	450000	45	P	
47	**Ti**	1	**3289.000**	ug/l	32,890.00	2.7	4500	45	A	
51	**V**	1	**185.600**	ug/l	1,856.00	3.6	4500	45	A	
52	**Cr**	1	**53.290**	ug/l	532.90	3.1	4500	45	P	
55	**Mn**	1	**840.900**	ug/l	8,409.00	2.3	4500	45	A	
57	**Fe**	1	**64760.000**	ug/l	647,600.00	1.9	450000	74	A	
59	**Co**	1	**28.340**	ug/l	283.40	2.7	4500	45	P	
60	**Ni**	1	**40.440**	ug/l	404.40	3.3	4500	45	P	
63	**Cu**	1	**92.070**	ug/l	920.70	2.4	4500	45	P	
66	**Zn**	1	**164.100**	ug/l	1,641.00	1.9	4500	74	P	
75	**As**	1	**9.426**	ug/l	94.26	2.4	4500	45	P	
78	**Se**	1	**1.457**	ug/l	14.57	4.5	4500	45	P	
88	**Sr**	1	**109.800**	ug/l	1,098.00	3.4	4500	45	A	
95	**Mo**	1	**0.874**	ug/l	8.74	2.0	4500	74	P	
109	**Ag**	1	**0.123**	ug/l	1.23	3.6	4500	103	P	
111	**Cd**	1	**2.390**	ug/l	23.90	1.2	4500	103	P	
118	**Sn**	1	**4.283**	ug/l	42.83	1.1	4500	103	P	
123	**Sb**	1	**3.040**	ug/l	30.40	1.8	4500	103	P	
135	**Ba**	1	**266.500**	ug/l	2,665.00	0.5	4500	103	P	
200	**Hg**	1	**0.105**	ug/l	1.05	7.3	45	209	P	
205	**Tl**	1	**0.255**	ug/l	2.55	8.0	4500	165	P	
208	**Pb**	1	**116.400**	ug/l	1,164.00	1.6	4500	209	A	
238	**U**	1	**1.016**	ug/l	10.16	2.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74163	1.09	81580	**90.9**	30	-	125	
45	Sc	1	1558680	1.97	1568000	**99.4**	30	-	125	
74	Ge	1	3827137	0.88	3965000	**96.5**	30	-	125	
103	Rh	1	5304153	0.56	5756000	**92.1**	30	-	125	
165	Ho	1	2683758	1.18	2702000	**99.3**	30	-	125	
175	Lu	1	2325364	0.58	2349000	**99.0**	30	-	125	
209	Bi	1	2703326	1.29	2910000	**92.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\075SMPL.D\075SMPL.D#
Date Acquired: Sep 15 2011 08:38 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-12-C Vial Number: 3304
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.174**	ug/l	11.74	7.1	900	6	P	
23	**Na**	1	**615.300**	ug/l	6,153.00	3.8	450000	6	A	
24	**Mg**	1	**9105.000**	ug/l	91,050.00	2.1	450000	6	A	
27	**Al**	1	**29190.000**	ug/l	291,900.00	1.0	450000	6	A	
31	**P**	1	**1972.000**	ug/l	19,720.00	2.9	450000	6	P	
39	**K**	1	**1627.000**	ug/l	16,270.00	2.3	450000	45	A	
44	**Ca**	1	**8801.000**	ug/l	88,010.00	1.9	450000	45	P	
47	**Ti**	1	**3064.000**	ug/l	30,640.00	2.8	4500	45	A	
51	**V**	1	**168.000**	ug/l	1,680.00	2.6	4500	45	A	
52	**Cr**	1	**51.180**	ug/l	511.80	2.2	4500	45	P	
55	**Mn**	1	**726.200**	ug/l	7,262.00	1.8	4500	45	A	
57	**Fe**	1	**59120.000**	ug/l	591,200.00	0.6	450000	74	A	
59	**Co**	1	**22.710**	ug/l	227.10	2.9	4500	45	P	
60	**Ni**	1	**38.960**	ug/l	389.60	1.6	4500	45	P	
63	**Cu**	1	**83.560**	ug/l	835.60	3.3	4500	45	P	
66	**Zn**	1	**153.100**	ug/l	1,531.00	1.2	4500	74	P	
75	**As**	1	**8.275**	ug/l	82.75	2.3	4500	45	P	
78	**Se**	1	**1.216**	ug/l	12.16	11.0	4500	45	P	
88	**Sr**	1	**96.960**	ug/l	969.60	2.0	4500	45	P	
95	**Mo**	1	**0.770**	ug/l	7.70	4.3	4500	74	P	
109	**Ag**	1	**0.108**	ug/l	1.08	8.9	4500	103	P	
111	**Cd**	1	**2.043**	ug/l	20.43	4.4	4500	103	P	
118	**Sn**	1	**3.693**	ug/l	36.93	1.6	4500	103	P	
123	**Sb**	1	**2.493**	ug/l	24.93	3.1	4500	103	P	
135	**Ba**	1	**245.600**	ug/l	2,456.00	2.6	4500	103	P	
200	**Hg**	1	**0.083**	ug/l	0.83	3.1	45	209	P	
205	**Tl**	1	**0.234**	ug/l	2.34	9.1	4500	165	P	
208	**Pb**	1	**114.900**	ug/l	1,149.00	0.4	4500	209	A	
238	**U**	1	**0.932**	ug/l	9.32	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72710	2.00	81580	**89.1**	30	-	125	
45	Sc	1	1573918	2.28	1568000	**100.4**	30	-	125	
74	Ge	1	3810053	0.91	3965000	**96.1**	30	-	125	
103	Rh	1	5344294	1.57	5756000	**92.8**	30	-	125	
165	Ho	1	2706201	1.39	2702000	**100.2**	30	-	125	
175	Lu	1	2310657	0.90	2349000	**98.4**	30	-	125	
209	Bi	1	2693548	0.52	2910000	**92.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\076SMPL.D\076SMPL.D#
Date Acquired: Sep 15 2011 08:42 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-13-C Vial Number: 3305
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.956**	ug/l	19.56	6.8	900	6	P	
23	**Na**	1	**514.300**	ug/l	5,143.00	1.3	450000	6	A	
24	**Mg**	1	**13600.000**	ug/l	136,000.00	1.6	450000	6	A	
27	**Al**	1	**40810.000**	ug/l	408,100.00	1.3	450000	6	A	
31	**P**	1	**1593.000**	ug/l	15,930.00	1.5	450000	6	P	
39	**K**	1	**1963.000**	ug/l	19,630.00	2.0	450000	45	A	
44	**Ca**	1	**10870.000**	ug/l	108,700.00	1.4	450000	45	P	
47	**Ti**	1	**3081.000**	ug/l	30,810.00	1.0	4500	45	A	
51	**V**	1	**165.700**	ug/l	1,657.00	0.5	4500	45	A	
52	**Cr**	1	**50.790**	ug/l	507.90	1.2	4500	45	P	
55	**Mn**	1	**1843.000**	ug/l	18,430.00	1.1	4500	45	A	
57	**Fe**	1	**75640.000**	ug/l	756,400.00	3.7	450000	74	A	
59	**Co**	1	**38.140**	ug/l	381.40	2.5	4500	45	P	
60	**Ni**	1	**49.920**	ug/l	499.20	2.4	4500	45	P	
63	**Cu**	1	**53.240**	ug/l	532.40	2.1	4500	45	P	
66	**Zn**	1	**152.100**	ug/l	1,521.00	3.3	4500	74	P	
75	**As**	1	**15.910**	ug/l	159.10	2.5	4500	45	P	
78	**Se**	1	**1.606**	ug/l	16.06	6.4	4500	45	P	
88	**Sr**	1	**103.000**	ug/l	1,030.00	1.4	4500	45	P	
95	**Mo**	1	**0.999**	ug/l	9.99	3.4	4500	74	P	
109	**Ag**	1	**0.099**	ug/l	0.99	9.8	4500	103	P	
111	**Cd**	1	**0.755**	ug/l	7.55	8.2	4500	103	P	
118	**Sn**	1	**2.665**	ug/l	26.65	2.9	4500	103	P	
123	**Sb**	1	**0.480**	ug/l	4.80	5.6	4500	103	P	
135	**Ba**	1	**466.300**	ug/l	4,663.00	1.5	4500	103	P	
200	**Hg**	1	**0.076**	ug/l	0.76	7.8	45	209	P	
205	**Tl**	1	**0.441**	ug/l	4.41	5.6	4500	165	P	
208	**Pb**	1	**23.870**	ug/l	238.70	1.5	4500	209	P	
238	**U**	1	**1.536**	ug/l	15.36	1.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70770	1.82	81580	**86.7**	30	-	125	
45	Sc	1	1567761	1.66	1568000	**100.0**	30	-	125	
74	Ge	1	3769449	3.15	3965000	**95.1**	30	-	125	
103	Rh	1	5222495	1.31	5756000	**90.7**	30	-	125	
165	Ho	1	2661908	1.03	2702000	**98.5**	30	-	125	
175	Lu	1	2280474	1.09	2349000	**97.1**	30	-	125	
209	Bi	1	2652739	0.88	2910000	**91.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\077SMPL.D\077SMPL.D#
Date Acquired: Sep 15 2011 08:46 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-15-C Vial Number: 3306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.537**	ug/l	15.37	3.2	900	6	P	
23	**Na**	1	**298.400**	ug/l	2,984.00	0.8	450000	6	P	
24	**Mg**	1	**13360.000**	ug/l	133,600.00	1.3	450000	6	A	
27	**Al**	1	**51770.000**	ug/l	517,700.00	1.7	450000	6	A	
31	**P**	1	**1354.000**	ug/l	13,540.00	1.5	450000	6	P	
39	**K**	1	**2153.000**	ug/l	21,530.00	4.4	450000	45	A	
44	**Ca**	1	**8395.000**	ug/l	83,950.00	3.4	450000	45	P	
47	**Ti**	1	**3118.000**	ug/l	31,180.00	2.6	4500	45	A	
51	**V**	1	**156.700**	ug/l	1,567.00	2.1	4500	45	A	
52	**Cr**	1	**49.380**	ug/l	493.80	3.3	4500	45	P	
55	**Mn**	1	**1293.000**	ug/l	12,930.00	2.2	4500	45	A	
57	**Fe**	1	**71220.000**	ug/l	712,200.00	1.5	450000	74	A	
59	**Co**	1	**28.630**	ug/l	286.30	3.6	4500	45	P	
60	**Ni**	1	**47.510**	ug/l	475.10	3.2	4500	45	P	
63	**Cu**	1	**50.280**	ug/l	502.80	3.2	4500	45	P	
66	**Zn**	1	**138.100**	ug/l	1,381.00	1.6	4500	74	P	
75	**As**	1	**11.820**	ug/l	118.20	4.5	4500	45	P	
78	**Se**	1	**1.386**	ug/l	13.86	2.2	4500	45	P	
88	**Sr**	1	**100.400**	ug/l	1,004.00	3.2	4500	45	P	
95	**Mo**	1	**0.864**	ug/l	8.64	3.7	4500	74	P	
109	**Ag**	1	**0.085**	ug/l	0.85	2.9	4500	103	P	
111	**Cd**	1	**0.492**	ug/l	4.92	7.5	4500	103	P	
118	**Sn**	1	**2.415**	ug/l	24.15	3.3	4500	103	P	
123	**Sb**	1	**0.381**	ug/l	3.81	3.5	4500	103	P	
135	**Ba**	1	**447.600**	ug/l	4,476.00	1.0	4500	103	P	
200	**Hg**	1	**0.056**	ug/l	0.56	3.5	45	209	P	
205	**Tl**	1	**0.354**	ug/l	3.54	4.9	4500	165	P	
208	**Pb**	1	**21.700**	ug/l	217.00	0.9	4500	209	P	
238	**U**	1	**1.508**	ug/l	15.08	0.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72828	0.90	81580	**89.3**	30	-	125	
45	Sc	1	1578226	2.93	1568000	**100.7**	30	-	125	
74	Ge	1	3771682	0.64	3965000	**95.1**	30	-	125	
103	Rh	1	5219819	0.49	5756000	**90.7**	30	-	125	
165	Ho	1	2652154	1.73	2702000	**98.2**	30	-	125	
175	Lu	1	2255688	1.27	2349000	**96.0**	30	-	125	
209	Bi	1	2651273	0.90	2910000	**91.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\078SMPL.D\078SMPL.D#
Date Acquired: Sep 15 2011 08:51 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-16-C Vial Number: 3307
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.940**	ug/l	19.40	1.8	900	6	P	
23	**Na**	1	**170.800**	ug/l	1,708.00	0.8	450000	6	P	
24	**Mg**	1	**8438.000**	ug/l	84,380.00	0.9	450000	6	A	
27	**Al**	1	**45220.000**	ug/l	452,200.00	1.0	450000	6	A	
31	**P**	1	**1802.000**	ug/l	18,020.00	1.5	450000	6	P	
39	**K**	1	**2932.000**	ug/l	29,320.00	0.5	450000	45	A	
44	**Ca**	1	**6258.000**	ug/l	62,580.00	1.9	450000	45	P	
47	**Ti**	1	**2557.000**	ug/l	25,570.00	0.9	4500	45	M	
51	**V**	1	**184.200**	ug/l	1,842.00	1.0	4500	45	A	
52	**Cr**	1	**45.840**	ug/l	458.40	0.3	4500	45	P	
55	**Mn**	1	**1865.000**	ug/l	18,650.00	1.3	4500	45	A	
57	**Fe**	1	**59870.000**	ug/l	598,700.00	2.7	450000	74	A	
59	**Co**	1	**39.980**	ug/l	399.80	1.7	4500	45	P	
60	**Ni**	1	**30.280**	ug/l	302.80	2.0	4500	45	P	
63	**Cu**	1	**35.520**	ug/l	355.20	1.9	4500	45	P	
66	**Zn**	1	**117.300**	ug/l	1,173.00	1.5	4500	74	P	
75	**As**	1	**12.350**	ug/l	123.50	1.4	4500	45	P	
78	**Se**	1	**1.900**	ug/l	19.00	7.8	4500	45	P	
88	**Sr**	1	**58.860**	ug/l	588.60	0.9	4500	45	P	
95	**Mo**	1	**0.798**	ug/l	7.98	3.5	4500	74	P	
109	**Ag**	1	**0.066**	ug/l	0.66	20.4	4500	103	P	
111	**Cd**	1	**0.323**	ug/l	3.23	16.1	4500	103	P	
118	**Sn**	1	**1.836**	ug/l	18.36	3.7	4500	103	P	
123	**Sb**	1	**0.420**	ug/l	4.20	3.8	4500	103	P	
135	**Ba**	1	**298.100**	ug/l	2,981.00	2.2	4500	103	P	
200	**Hg**	1	**0.029**	ug/l	0.29	22.5	45	209	P	
205	**Tl**	1	**0.392**	ug/l	3.92	4.3	4500	165	P	
208	**Pb**	1	**37.880**	ug/l	378.80	1.0	4500	209	P	
238	**U**	1	**1.801**	ug/l	18.01	0.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	73249	1.13	81580	**89.8**	30	-	125	
45	Sc	1	1570884	1.24	1568000	**100.2**	30	-	125	
74	Ge	1	3786378	1.02	3965000	**95.5**	30	-	125	
103	Rh	1	5319549	1.25	5756000	**92.4**	30	-	125	
165	Ho	1	2632161	0.91	2702000	**97.4**	30	-	125	
175	Lu	1	2254144	0.63	2349000	**96.0**	30	-	125	
209	Bi	1	2665689	0.64	2910000	**91.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\079SMPL.D\079SMPL.D#
Date Acquired: Sep 15 2011 08:55 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-17-C Vial Number: 3308
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.599**	ug/l	15.99	4.4	900	6	P	
23	**Na**	1	**145.800**	ug/l	1,458.00	0.2	450000	6	P	
24	**Mg**	1	**8992.000**	ug/l	89,920.00	2.5	450000	6	A	
27	**Al**	1	**40390.000**	ug/l	403,900.00	1.1	450000	6	A	
31	**P**	1	**1128.000**	ug/l	11,280.00	1.8	450000	6	P	
39	**K**	1	**2845.000**	ug/l	28,450.00	1.7	450000	45	A	
44	**Ca**	1	**5247.000**	ug/l	52,470.00	1.0	450000	45	P	
47	**Ti**	1	**2886.000**	ug/l	28,860.00	2.6	4500	45	A	
51	**V**	1	**173.100**	ug/l	1,731.00	2.2	4500	45	A	
52	**Cr**	1	**45.530**	ug/l	455.30	2.0	4500	45	P	
55	**Mn**	1	**1583.000**	ug/l	15,830.00	2.2	4500	45	A	
57	**Fe**	1	**56440.000**	ug/l	564,400.00	1.2	450000	74	A	
59	**Co**	1	**31.670**	ug/l	316.70	1.9	4500	45	P	
60	**Ni**	1	**29.910**	ug/l	299.10	2.7	4500	45	P	
63	**Cu**	1	**34.580**	ug/l	345.80	2.8	4500	45	P	
66	**Zn**	1	**108.000**	ug/l	1,080.00	2.6	4500	74	P	
75	**As**	1	**12.330**	ug/l	123.30	2.2	4500	45	P	
78	**Se**	1	**1.526**	ug/l	15.26	3.2	4500	45	P	
88	**Sr**	1	**53.720**	ug/l	537.20	1.8	4500	45	P	
95	**Mo**	1	**0.752**	ug/l	7.52	1.5	4500	74	P	
109	**Ag**	1	**0.062**	ug/l	0.62	6.4	4500	103	P	
111	**Cd**	1	**0.298**	ug/l	2.98	6.1	4500	103	P	
118	**Sn**	1	**1.817**	ug/l	18.17	2.1	4500	103	P	
123	**Sb**	1	**0.430**	ug/l	4.30	3.7	4500	103	P	
135	**Ba**	1	**281.000**	ug/l	2,810.00	0.8	4500	103	P	
200	**Hg**	1	**0.032**	ug/l	0.32	9.3	45	209	P	
205	**Tl**	1	**0.347**	ug/l	3.47	7.6	4500	165	P	
208	**Pb**	1	**26.060**	ug/l	260.60	1.6	4500	209	P	
238	**U**	1	**1.678**	ug/l	16.78	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76352	0.27	81580	**93.6**	30	-	125	
45	Sc	1	1591534	1.70	1568000	**101.5**	30	-	125	
74	Ge	1	3867758	1.08	3965000	**97.5**	30	-	125	
103	Rh	1	5311891	0.93	5756000	**92.3**	30	-	125	
165	Ho	1	2672299	0.68	2702000	**98.9**	30	-	125	
175	Lu	1	2288667	0.96	2349000	**97.4**	30	-	125	
209	Bi	1	2655105	0.74	2910000	**91.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\080SMPL.D\080SMPL.D#
Date Acquired: Sep 15 2011 08:59 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-18-C Vial Number: 3309
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.627**	ug/l	16.27	2.0	900	6	P	
23	**Na**	1	**137.300**	ug/l	1,373.00	4.0	450000	6	P	
24	**Mg**	1	**8723.000**	ug/l	87,230.00	0.7	450000	6	A	
27	**Al**	1	**36040.000**	ug/l	360,400.00	1.8	450000	6	A	
31	**P**	1	**1393.000**	ug/l	13,930.00	2.9	450000	6	P	
39	**K**	1	**2748.000**	ug/l	27,480.00	0.9	450000	45	A	
44	**Ca**	1	**4418.000**	ug/l	44,180.00	0.9	450000	45	P	
47	**Ti**	1	**2940.000**	ug/l	29,400.00	4.2	4500	45	A	
51	**V**	1	**165.300**	ug/l	1,653.00	1.7	4500	45	A	
52	**Cr**	1	**42.310**	ug/l	423.10	1.3	4500	45	P	
55	**Mn**	1	**1498.000**	ug/l	14,980.00	1.2	4500	45	A	
57	**Fe**	1	**54070.000**	ug/l	540,700.00	1.0	450000	74	A	
59	**Co**	1	**29.770**	ug/l	297.70	0.9	4500	45	P	
60	**Ni**	1	**28.430**	ug/l	284.30	0.8	4500	45	P	
63	**Cu**	1	**32.080**	ug/l	320.80	1.0	4500	45	P	
66	**Zn**	1	**109.800**	ug/l	1,098.00	1.3	4500	74	P	
75	**As**	1	**11.640**	ug/l	116.40	0.1	4500	45	P	
78	**Se**	1	**1.646**	ug/l	16.46	9.7	4500	45	P	
88	**Sr**	1	**53.610**	ug/l	536.10	1.2	4500	45	P	
95	**Mo**	1	**0.919**	ug/l	9.19	3.6	4500	74	P	
109	**Ag**	1	**0.064**	ug/l	0.64	6.4	4500	103	P	
111	**Cd**	1	**0.323**	ug/l	3.23	3.6	4500	103	P	
118	**Sn**	1	**1.520**	ug/l	15.20	2.4	4500	103	P	
123	**Sb**	1	**0.396**	ug/l	3.96	5.9	4500	103	P	
135	**Ba**	1	**278.200**	ug/l	2,782.00	2.5	4500	103	P	
200	**Hg**	1	**0.035**	ug/l	0.35	20.4	45	209	P	
205	**Tl**	1	**0.352**	ug/l	3.52	3.3	4500	165	P	
208	**Pb**	1	**24.890**	ug/l	248.90	2.9	4500	209	P	
238	**U**	1	**1.702**	ug/l	17.02	2.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77114	2.91	81580	**94.5**	30	-	125	
45	Sc	1	1651869	0.46	1568000	**105.3**	30	-	125	
74	Ge	1	3978838	1.48	3965000	**100.3**	30	-	125	
103	Rh	1	5452695	1.94	5756000	**94.7**	30	-	125	
165	Ho	1	2709818	1.48	2702000	**100.3**	30	-	125	
175	Lu	1	2311857	0.72	2349000	**98.4**	30	-	125	
209	Bi	1	2691404	2.25	2910000	**92.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\081SMPL.D\081SMPL.D#
Date Acquired: Sep 15 2011 09:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28278-D-19-C Vial Number: 3310
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.505**	ug/l	15.05	2.6	900	6	P	
23	**Na**	1	**230.100**	ug/l	2,301.00	0.9	450000	6	P	
24	**Mg**	1	**11530.000**	ug/l	115,300.00	0.5	450000	6	A	
27	**Al**	1	**40210.000**	ug/l	402,100.00	0.9	450000	6	A	
31	**P**	1	**1317.000**	ug/l	13,170.00	1.0	450000	6	P	
39	**K**	1	**2435.000**	ug/l	24,350.00	1.1	450000	45	A	
44	**Ca**	1	**8515.000**	ug/l	85,150.00	2.5	450000	45	P	
47	**Ti**	1	**2386.000**	ug/l	23,860.00	2.3	4500	45	P	
51	**V**	1	**125.900**	ug/l	1,259.00	3.2	4500	45	A	
52	**Cr**	1	**39.110**	ug/l	391.10	3.9	4500	45	P	
55	**Mn**	1	**961.000**	ug/l	9,610.00	4.0	4500	45	A	
57	**Fe**	1	**59480.000**	ug/l	594,800.00	2.3	450000	74	A	
59	**Co**	1	**22.800**	ug/l	228.00	3.9	4500	45	P	
60	**Ni**	1	**35.050**	ug/l	350.50	2.4	4500	45	P	
63	**Cu**	1	**43.380**	ug/l	433.80	3.0	4500	45	P	
66	**Zn**	1	**122.400**	ug/l	1,224.00	2.5	4500	74	P	
75	**As**	1	**12.280**	ug/l	122.80	2.3	4500	45	P	
78	**Se**	1	**1.250**	ug/l	12.50	2.1	4500	45	P	
88	**Sr**	1	**86.200**	ug/l	862.00	2.7	4500	45	P	
95	**Mo**	1	**0.603**	ug/l	6.03	4.3	4500	74	P	
109	**Ag**	1	**0.071**	ug/l	0.71	4.3	4500	103	P	
111	**Cd**	1	**0.392**	ug/l	3.92	18.6	4500	103	P	
118	**Sn**	1	**2.104**	ug/l	21.04	2.8	4500	103	P	
123	**Sb**	1	**0.392**	ug/l	3.92	3.0	4500	103	P	
135	**Ba**	1	**352.000**	ug/l	3,520.00	1.3	4500	103	P	
200	**Hg**	1	**0.045**	ug/l	0.45	2.1	45	209	P	
205	**Tl**	1	**0.305**	ug/l	3.05	4.8	4500	165	P	
208	**Pb**	1	**21.380**	ug/l	213.80	2.0	4500	209	P	
238	**U**	1	**1.392**	ug/l	13.92	2.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74754	0.16	81580	**91.6**	30	-	125	
45	Sc	1	1639243	2.99	1568000	**104.5**	30	-	125	
74	Ge	1	3923734	2.25	3965000	**99.0**	30	-	125	
103	Rh	1	5376562	1.69	5756000	**93.4**	30	-	125	
165	Ho	1	2675658	2.39	2702000	**99.0**	30	-	125	
175	Lu	1	2292341	1.72	2349000	**97.6**	30	-	125	
209	Bi	1	2674174	1.36	2910000	**91.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\082SMPL.D\082SMPL.D#
Date Acquired: Sep 15 2011 09:08 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.890**	ug/l	50.89	2.0	900	6	P	
23	**Na**	1	**5043.000**	ug/l	5,043.00	2.5	450000	6	A	
24	**Mg**	1	**5069.000**	ug/l	5,069.00	2.2	450000	6	A	
27	**Al**	1	**545.300**	ug/l	545.30	1.5	450000	6	P	
31	**P**	1	**5150.000**	ug/l	5,150.00	2.1	450000	6	P	
39	**K**	1	**4813.000**	ug/l	4,813.00	1.3	450000	45	A	
44	**Ca**	1	**4871.000**	ug/l	4,871.00	2.1	450000	45	P	
47	**Ti**	1	**50.370**	ug/l	50.37	1.7	4500	45	P	
51	**V**	1	**49.190**	ug/l	49.19	2.3	4500	45	P	
52	**Cr**	1	**49.150**	ug/l	49.15	3.2	4500	45	P	
55	**Mn**	1	**49.590**	ug/l	49.59	2.8	4500	45	P	
57	**Fe**	1	**4992.000**	ug/l	4,992.00	1.9	450000	74	A	
59	**Co**	1	**48.020**	ug/l	48.02	2.1	4500	45	P	
60	**Ni**	1	**49.810**	ug/l	49.81	1.9	4500	45	P	
63	**Cu**	1	**50.420**	ug/l	50.42	2.5	4500	45	P	
66	**Zn**	1	**48.150**	ug/l	48.15	2.8	4500	74	P	
75	**As**	1	**50.880**	ug/l	50.88	2.5	4500	45	P	
78	**Se**	1	**49.870**	ug/l	49.87	2.2	4500	45	P	
88	**Sr**	1	**49.830**	ug/l	49.83	1.7	4500	45	P	
95	**Mo**	1	**48.620**	ug/l	48.62	1.9	4500	74	P	
109	**Ag**	1	**46.710**	ug/l	46.71	0.8	4500	103	P	
111	**Cd**	1	**47.490**	ug/l	47.49	1.1	4500	103	P	
118	**Sn**	1	**47.810**	ug/l	47.81	0.6	4500	103	P	
123	**Sb**	1	**47.950**	ug/l	47.95	1.3	4500	103	P	
135	**Ba**	1	**47.930**	ug/l	47.93	1.4	4500	103	P	
200	**Hg**	1	**2.445**	ug/l	2.45	3.5	45	209	P	
205	**Tl**	1	**48.120**	ug/l	48.12	5.1	4500	165	A	
208	**Pb**	1	**47.670**	ug/l	47.67	2.3	4500	209	P	
238	**U**	1	**48.030**	ug/l	48.03	3.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	77869	2.48	81580	**95.5**	30 - 125	
45	Sc	1	1605643	2.42	1568000	**102.4**	30 - 125	
74	Ge	1	4022665	1.98	3965000	**101.5**	30 - 125	
103	Rh	1	5631386	0.88	5756000	**97.8**	30 - 125	
165	Ho	1	2667501	1.09	2702000	**98.7**	30 - 125	
175	Lu	1	2322793	1.03	2349000	**98.9**	30 - 125	
209	Bi	1	2781945	2.44	2910000	**95.6**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\083SMPL.D\083SMPL.D#
Date Acquired: Sep 15 2011 09:13 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.012**	ug/l	0.01	43.3	900	6	P	
23	**Na**	1	**4.981**	ug/l	4.98	21.5	450000	6	P	
24	**Mg**	1	**3.233**	ug/l	3.23	11.9	450000	6	P	
27	**Al**	1	**3.846**	ug/l	3.85	15.6	450000	6	P	
31	**P**	1	**1.065**	ug/l	1.07	278.6	450000	6	P	
39	**K**	1	**-1.546**	ug/l	-1.55	232.0	450000	45	P	
44	**Ca**	1	**3.266**	ug/l	3.27	26.9	450000	45	P	
47	**Ti**	1	**0.586**	ug/l	0.59	6.5	4500	45	P	
51	**V**	1	**-0.150**	ug/l	-0.15	20.5	4500	45	P	
52	**Cr**	1	**0.020**	ug/l	0.02	14.6	4500	45	P	
55	**Mn**	1	**0.151**	ug/l	0.15	19.1	4500	45	P	
57	**Fe**	1	**10.170**	ug/l	10.17	18.4	450000	74	P	
59	**Co**	1	**0.020**	ug/l	0.02	17.9	4500	45	P	
60	**Ni**	1	**0.019**	ug/l	0.02	18.6	4500	45	P	
63	**Cu**	1	**-0.070**	ug/l	-0.07	6.2	4500	45	P	
66	**Zn**	1	**0.028**	ug/l	0.03	31.7	4500	74	P	
75	**As**	1	**0.026**	ug/l	0.03	141.4	4500	45	P	
78	**Se**	1	**0.080**	ug/l	0.08	109.0	4500	45	P	
88	**Sr**	1	**0.036**	ug/l	0.04	5.7	4500	45	P	
95	**Mo**	1	**0.098**	ug/l	0.10	2.0	4500	74	P	
109	**Ag**	1	**0.018**	ug/l	0.02	24.4	4500	103	P	
111	**Cd**	1	**0.013**	ug/l	0.01	61.1	4500	103	P	
118	**Sn**	1	**0.143**	ug/l	0.14	12.8	4500	103	P	
123	**Sb**	1	**0.053**	ug/l	0.05	11.0	4500	103	P	
135	**Ba**	1	**0.048**	ug/l	0.05	46.2	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.01	18.0	45	209	P	
205	**Tl**	1	**0.271**	ug/l	0.27	7.6	4500	165	P	
208	**Pb**	1	**0.016**	ug/l	0.02	42.0	4500	209	P	
238	**U**	1	**0.024**	ug/l	0.02	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78672	1.28	81580	**96.4**	30	-	125	
45	Sc	1	1630848	3.06	1568000	**104.0**	30	-	125	
74	Ge	1	4119894	2.25	3965000	**103.9**	30	-	125	
103	Rh	1	5822590	1.46	5756000	**101.2**	30	-	125	
165	Ho	1	2747746	1.02	2702000	**101.7**	30	-	125	
175	Lu	1	2335919	1.97	2349000	**99.4**	30	-	125	
209	Bi	1	2875186	1.64	2910000	**98.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\084SMPL.D\084SMPL.D#
Date Acquired: Sep 15 2011 09:17 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-95396/17-A Vial Number: 3401
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.002**	ug/l	0.02	179.5	900	6	P	
23	Na	1	**5.445**	ug/l	54.45	13.4	450000	6	P	
24	Mg	1	**1.127**	ug/l	11.27	7.2	450000	6	P	
27	Al	1	**2.414**	ug/l	24.14	15.9	450000	6	P	
31	P	1	**2.143**	ug/l	21.43	23.4	450000	6	P	
39	K	1	**-5.515**	ug/l	-55.15	47.0	450000	45	P	
44	Ca	1	**3.680**	ug/l	36.80	5.5	450000	45	P	
47	Ti	1	**0.273**	ug/l	2.73	22.3	4500	45	P	
51	V	1	**-0.181**	ug/l	-1.81	8.9	4500	45	P	
52	Cr	1	**0.022**	ug/l	0.22	30.0	4500	45	P	
55	Mn	1	**0.076**	ug/l	0.76	10.2	4500	45	P	
57	Fe	1	**3.890**	ug/l	38.90	6.0	450000	74	P	
59	Co	1	**0.004**	ug/l	0.04	47.0	4500	45	P	
60	Ni	1	**0.023**	ug/l	0.23	43.1	4500	45	P	
63	Cu	1	**-0.020**	ug/l	-0.20	108.1	4500	45	P	
66	Zn	1	**0.171**	ug/l	1.71	23.8	4500	74	P	
75	As	1	**0.005**	ug/l	0.05	54.1	4500	45	P	
78	Se	1	**0.096**	ug/l	0.96	50.4	4500	45	P	
88	Sr	1	**0.029**	ug/l	0.29	31.8	4500	45	P	
95	Mo	1	**0.034**	ug/l	0.34	4.8	4500	74	P	
109	Ag	1	**0.003**	ug/l	0.03	51.5	4500	103	P	
111	Cd	1	**0.004**	ug/l	0.04	263.7	4500	103	P	
118	Sn	1	**0.054**	ug/l	0.54	33.9	4500	103	P	
123	Sb	1	**0.019**	ug/l	0.19	43.0	4500	103	P	
135	Ba	1	**0.059**	ug/l	0.59	36.5	4500	103	P	
200	Hg	1	**-0.001**	ug/l	-0.01	242.4	45	209	P	
205	Tl	1	**0.073**	ug/l	0.73	14.5	4500	165	P	
208	Pb	1	**0.015**	ug/l	0.15	59.4	4500	209	P	
238	U	1	**0.003**	ug/l	0.03	17.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78208	0.54	81580	**95.9**	30	-	125	
45	Sc	1	1642701	2.87	1568000	**104.8**	30	-	125	
74	Ge	1	4110080	0.31	3965000	**103.7**	30	-	125	
103	Rh	1	5853291	0.56	5756000	**101.7**	30	-	125	
165	Ho	1	2738993	1.75	2702000	**101.4**	30	-	125	
175	Lu	1	2324104	1.37	2349000	**98.9**	30	-	125	
209	Bi	1	2863292	0.23	2910000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\085SMPL.D\085SMPL.D#
Date Acquired: Sep 15 2011 09:21 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95396/18-A Vial Number: 3402
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.318**	ug/l	115.90	0.6	900	6	P	
23	**Na**	1	**481.200**	ug/l	24,060.00	0.9	450000	6	A	
24	**Mg**	1	**469.900**	ug/l	23,495.00	1.7	450000	6	P	
27	**Al**	1	**98.120**	ug/l	4,906.00	1.8	450000	6	P	
31	**P**	1	**463.700**	ug/l	23,185.00	0.8	450000	6	P	
39	**K**	1	**435.300**	ug/l	21,765.00	3.7	450000	45	P	
44	**Ca**	1	**394.200**	ug/l	19,710.00	3.5	450000	45	P	
47	**Ti**	1	**104.800**	ug/l	5,240.00	3.5	4500	45	P	
51	**V**	1	**22.000**	ug/l	1,100.00	2.6	4500	45	P	
52	**Cr**	1	**8.805**	ug/l	440.25	3.7	4500	45	P	
55	**Mn**	1	**22.190**	ug/l	1,109.50	2.5	4500	45	P	
57	**Fe**	1	**471.000**	ug/l	23,550.00	1.7	450000	74	P	
59	**Co**	1	**22.080**	ug/l	1,104.00	2.0	4500	45	P	
60	**Ni**	1	**23.200**	ug/l	1,160.00	2.2	4500	45	P	
63	**Cu**	1	**11.850**	ug/l	592.50	2.1	4500	45	P	
66	**Zn**	1	**21.710**	ug/l	1,085.50	1.8	4500	74	P	
75	**As**	1	**93.410**	ug/l	4,670.50	3.0	4500	45	P	
78	**Se**	1	**90.330**	ug/l	4,516.50	2.9	4500	45	P	
88	**Sr**	1	**46.530**	ug/l	2,326.50	2.5	4500	45	P	
95	**Mo**	1	**107.800**	ug/l	5,390.00	1.7	4500	74	P	
109	**Ag**	1	**12.680**	ug/l	634.00	0.9	4500	103	P	
111	**Cd**	1	**2.209**	ug/l	110.45	1.9	4500	103	P	
118	**Sn**	1	**105.700**	ug/l	5,285.00	1.3	4500	103	P	
123	**Sb**	1	**63.770**	ug/l	3,188.50	0.7	4500	103	P	
135	**Ba**	1	**85.670**	ug/l	4,283.50	1.1	4500	103	P	
200	**Hg**	1	**1.006**	ug/l	50.30	2.7	45	209	P	
205	**Tl**	1	**85.170**	ug/l	4,258.50	5.3	4500	165	A	
208	**Pb**	1	**21.440**	ug/l	1,072.00	1.3	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.03	37.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74027	1.53	81580	**90.7**	30	-	125	
45	Sc	1	1588861	2.51	1568000	**101.3**	30	-	125	
74	Ge	1	4034513	1.07	3965000	**101.8**	30	-	125	
103	Rh	1	5707097	0.33	5756000	**99.2**	30	-	125	
165	Ho	1	2711382	0.55	2702000	**100.3**	30	-	125	
175	Lu	1	2356841	0.31	2349000	**100.3**	30	-	125	
209	Bi	1	2864214	0.97	2910000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\086SMPL.D\086SMPL.D#
Date Acquired: Sep 15 2011 09:26 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95396/19-A Vial Number: 3403
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.202**	ug/l	110.10	3.0	900	6	P	
23	**Na**	1	**476.500**	ug/l	23,825.00	4.9	450000	6	A	
24	**Mg**	1	**457.000**	ug/l	22,850.00	3.7	450000	6	P	
27	**Al**	1	**96.290**	ug/l	4,814.50	3.3	450000	6	P	
31	**P**	1	**452.600**	ug/l	22,630.00	5.3	450000	6	P	
39	**K**	1	**426.600**	ug/l	21,330.00	2.0	450000	45	P	
44	**Ca**	1	**388.800**	ug/l	19,440.00	2.3	450000	45	P	
47	**Ti**	1	**104.300**	ug/l	5,215.00	2.2	4500	45	P	
51	**V**	1	**21.620**	ug/l	1,081.00	1.7	4500	45	P	
52	**Cr**	1	**8.861**	ug/l	443.05	2.7	4500	45	P	
55	**Mn**	1	**22.360**	ug/l	1,118.00	3.1	4500	45	P	
57	**Fe**	1	**461.200**	ug/l	23,060.00	1.5	450000	74	P	
59	**Co**	1	**21.750**	ug/l	1,087.50	1.9	4500	45	P	
60	**Ni**	1	**22.580**	ug/l	1,129.00	1.2	4500	45	P	
63	**Cu**	1	**11.710**	ug/l	585.50	3.0	4500	45	P	
66	**Zn**	1	**21.780**	ug/l	1,089.00	0.9	4500	74	P	
75	**As**	1	**92.480**	ug/l	4,624.00	3.1	4500	45	P	
78	**Se**	1	**89.840**	ug/l	4,492.00	2.6	4500	45	P	
88	**Sr**	1	**46.170**	ug/l	2,308.50	2.2	4500	45	P	
95	**Mo**	1	**106.800**	ug/l	5,340.00	0.3	4500	74	P	
109	**Ag**	1	**12.550**	ug/l	627.50	1.0	4500	103	P	
111	**Cd**	1	**2.235**	ug/l	111.75	3.5	4500	103	P	
118	**Sn**	1	**105.000**	ug/l	5,250.00	1.3	4500	103	P	
123	**Sb**	1	**63.440**	ug/l	3,172.00	1.5	4500	103	P	
135	**Ba**	1	**84.380**	ug/l	4,219.00	0.8	4500	103	P	
200	**Hg**	1	**1.008**	ug/l	50.40	1.2	45	209	P	
205	**Tl**	1	**85.030**	ug/l	4,251.50	2.1	4500	165	A	
208	**Pb**	1	**21.330**	ug/l	1,066.50	2.2	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	312.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75394	4.29	81580	**92.4**	30	-	125	
45	Sc	1	1592390	2.58	1568000	**101.6**	30	-	125	
74	Ge	1	4058841	1.07	3965000	**102.4**	30	-	125	
103	Rh	1	5744873	1.20	5756000	**99.8**	30	-	125	
165	Ho	1	2745992	2.40	2702000	**101.6**	30	-	125	
175	Lu	1	2349592	2.17	2349000	**100.0**	30	-	125	
209	Bi	1	2881426	2.04	2910000	**99.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\087SMPL.D\087SMPL.D#
Date Acquired: Sep 15 2011 09:30 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-95396/20-A Vial Number: 3404
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.310**	ug/l	986.20	0.5	900	6	P	
23	**Na**	1	**413.300**	ug/l	8,266.00	0.7	450000	6	M	
24	**Mg**	1	**1619.000**	ug/l	32,380.00	1.2	450000	6	A	
27	**Al**	1	**4581.000**	ug/l	91,620.00	2.7	450000	6	A	
31	**P**	1	**283.200**	ug/l	5,664.00	3.8	450000	6	P	
39	**K**	1	**1348.000**	ug/l	26,960.00	1.1	450000	45	A	
44	**Ca**	1	**3519.000**	ug/l	70,380.00	1.2	450000	45	P	
47	**Ti**	1	**113.700**	ug/l	2,274.00	2.3	4500	45	P	
51	**V**	1	**60.100**	ug/l	1,202.00	1.8	4500	45	P	
52	**Cr**	1	**49.480**	ug/l	989.60	1.5	4500	45	P	
55	**Mn**	1	**251.700**	ug/l	5,034.00	0.8	4500	45	A	
57	**Fe**	1	**7466.000**	ug/l	149,320.00	1.5	450000	74	A	
59	**Co**	1	**74.850**	ug/l	1,497.00	0.5	4500	45	M	
60	**Ni**	1	**60.560**	ug/l	1,211.20	2.7	4500	45	P	
63	**Cu**	1	**40.020**	ug/l	800.40	3.1	4500	45	P	
66	**Zn**	1	**157.900**	ug/l	3,158.00	0.9	4500	74	P	
75	**As**	1	**61.130**	ug/l	1,222.60	2.5	4500	45	P	
78	**Se**	1	**117.100**	ug/l	2,342.00	1.8	4500	45	P	
88	**Sr**	1	**61.600**	ug/l	1,232.00	2.8	4500	45	P	
95	**Mo**	1	**48.760**	ug/l	975.20	1.2	4500	74	P	
109	**Ag**	1	**26.120**	ug/l	522.40	1.2	4500	103	P	
111	**Cd**	1	**58.020**	ug/l	1,160.40	1.1	4500	103	P	
118	**Sn**	1	**71.210**	ug/l	1,424.20	0.7	4500	103	P	
123	**Sb**	1	**112.700**	ug/l	2,254.00	1.4	4500	103	P	
135	**Ba**	1	**168.600**	ug/l	3,372.00	1.6	4500	103	P	
200	**Hg**	1	**8.730**	ug/l	174.60	1.8	45	209	P	
205	**Tl**	1	**90.950**	ug/l	1,819.00	5.0	4500	165	A	
208	**Pb**	1	**87.630**	ug/l	1,752.60	1.9	4500	209	A	
238	**U**	1	**0.543**	ug/l	10.86	2.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76750	1.69	81580	**94.1**	30	-	125	
45	Sc	1	1606969	1.92	1568000	**102.5**	30	-	125	
74	Ge	1	4050040	0.89	3965000	**102.1**	30	-	125	
103	Rh	1	5708355	0.55	5756000	**99.2**	30	-	125	
165	Ho	1	2744588	0.82	2702000	**101.6**	30	-	125	
175	Lu	1	2382626	0.99	2349000	**101.4**	30	-	125	
209	Bi	1	2806115	1.15	2910000	**96.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\088SMPL.D\088SMPL.D#
Date Acquired: Sep 15 2011 09:35 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.430**	ug/l	50.43	1.6	900	6	P	
23	**Na**	1	**4972.000**	ug/l	4,972.00	0.4	450000	6	A	
24	**Mg**	1	**4992.000**	ug/l	4,992.00	1.2	450000	6	A	
27	**Al**	1	**520.500**	ug/l	520.50	0.6	450000	6	P	
31	**P**	1	**5094.000**	ug/l	5,094.00	0.3	450000	6	P	
39	**K**	1	**4883.000**	ug/l	4,883.00	4.4	450000	45	A	
44	**Ca**	1	**4810.000**	ug/l	4,810.00	2.3	450000	45	P	
47	**Ti**	1	**48.270**	ug/l	48.27	2.6	4500	45	P	
51	**V**	1	**48.790**	ug/l	48.79	2.9	4500	45	P	
52	**Cr**	1	**48.860**	ug/l	48.86	2.4	4500	45	P	
55	**Mn**	1	**48.940**	ug/l	48.94	2.4	4500	45	P	
57	**Fe**	1	**5012.000**	ug/l	5,012.00	1.2	450000	74	A	
59	**Co**	1	**47.770**	ug/l	47.77	3.0	4500	45	P	
60	**Ni**	1	**49.310**	ug/l	49.31	2.2	4500	45	P	
63	**Cu**	1	**50.320**	ug/l	50.32	2.6	4500	45	P	
66	**Zn**	1	**48.220**	ug/l	48.22	0.8	4500	74	P	
75	**As**	1	**50.330**	ug/l	50.33	2.5	4500	45	P	
78	**Se**	1	**49.580**	ug/l	49.58	3.1	4500	45	P	
88	**Sr**	1	**49.500**	ug/l	49.50	3.2	4500	45	P	
95	**Mo**	1	**47.590**	ug/l	47.59	1.7	4500	74	P	
109	**Ag**	1	**47.670**	ug/l	47.67	1.7	4500	103	P	
111	**Cd**	1	**48.220**	ug/l	48.22	1.8	4500	103	P	
118	**Sn**	1	**48.450**	ug/l	48.45	2.4	4500	103	P	
123	**Sb**	1	**48.880**	ug/l	48.88	1.8	4500	103	P	
135	**Ba**	1	**48.500**	ug/l	48.50	1.2	4500	103	P	
200	**Hg**	1	**2.479**	ug/l	2.48	2.8	45	209	P	
205	**Tl**	1	**47.980**	ug/l	47.98	3.9	4500	165	A	
208	**Pb**	1	**48.060**	ug/l	48.06	1.3	4500	209	P	
238	**U**	1	**48.910**	ug/l	48.91	1.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	78960	1.65	81580	**96.8**	30	-	125	
45	Sc	1	1643328	3.30	1568000	**104.8**	30	-	125	
74	Ge	1	4109361	1.35	3965000	**103.6**	30	-	125	
103	Rh	1	5636007	1.79	5756000	**97.9**	30	-	125	
165	Ho	1	2767915	0.91	2702000	**102.4**	30	-	125	
175	Lu	1	2374547	2.66	2349000	**101.1**	30	-	125	
209	Bi	1	2802785	1.69	2910000	**96.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\089SMPL.D\089SMPL.D#
Date Acquired: Sep 15 2011 09:39 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.023**	ug/l	0.02	40.8	900	6	P	
23	Na	1	**9.571**	ug/l	9.57	19.2	450000	6	P	
24	Mg	1	**3.504**	ug/l	3.50	7.5	450000	6	P	
27	Al	1	**1.014**	ug/l	1.01	15.3	450000	6	P	
31	P	1	**3.514**	ug/l	3.51	35.4	450000	6	P	
39	K	1	**-3.507**	ug/l	-3.51	98.3	450000	45	P	
44	Ca	1	**4.190**	ug/l	4.19	12.7	450000	45	P	
47	Ti	1	**0.129**	ug/l	0.13	21.8	4500	45	P	
51	V	1	**-0.141**	ug/l	-0.14	38.8	4500	45	P	
52	Cr	1	**0.032**	ug/l	0.03	6.9	4500	45	P	
55	Mn	1	**0.082**	ug/l	0.08	20.1	4500	45	P	
57	Fe	1	**5.808**	ug/l	5.81	12.2	450000	74	P	
59	Co	1	**0.041**	ug/l	0.04	21.3	4500	45	P	
60	Ni	1	**0.035**	ug/l	0.03	37.7	4500	45	P	
63	Cu	1	**0.006**	ug/l	0.01	254.0	4500	45	P	
66	Zn	1	**0.059**	ug/l	0.06	30.5	4500	74	P	
75	As	1	**0.049**	ug/l	0.05	81.9	4500	45	P	
78	Se	1	**0.111**	ug/l	0.11	28.9	4500	45	P	
88	Sr	1	**0.038**	ug/l	0.04	26.8	4500	45	P	
95	Mo	1	**0.168**	ug/l	0.17	22.2	4500	74	P	
109	Ag	1	**0.035**	ug/l	0.03	6.6	4500	103	P	
111	Cd	1	**0.030**	ug/l	0.03	23.8	4500	103	P	
118	Sn	1	**0.306**	ug/l	0.31	12.3	4500	103	P	
123	Sb	1	**0.129**	ug/l	0.13	12.8	4500	103	P	
135	Ba	1	**0.059**	ug/l	0.06	37.4	4500	103	P	
200	Hg	1	**0.038**	ug/l	0.04	19.2	45	209	P	
205	Tl	1	**0.484**	ug/l	0.48	8.3	4500	165	P	
208	Pb	1	**0.044**	ug/l	0.04	46.6	4500	209	P	
238	U	1	**0.035**	ug/l	0.03	10.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	76584	1.38	81580	**93.9**	30	-	125	
45	Sc	1	1610934	2.42	1568000	**102.7**	30	-	125	
74	Ge	1	4047470	0.54	3965000	**102.1**	30	-	125	
103	Rh	1	5706160	1.51	5756000	**99.1**	30	-	125	
165	Ho	1	2739751	0.66	2702000	**101.4**	30	-	125	
175	Lu	1	2336385	0.13	2349000	**99.5**	30	-	125	
209	Bi	1	2873724	2.19	2910000	**98.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\090SMPL.D\090SMPL.D#
Date Acquired: Sep 15 2011 09:43 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-1-G SD Vial Number: 3501
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.338**	ug/l	16.88	13.7	900	6	P	
23	**Na**	1	**41.270**	ug/l	2,063.50	0.8	450000	6	P	
24	**Mg**	1	**1896.000**	ug/l	94,800.00	1.4	450000	6	A	
27	**Al**	1	**7626.000**	ug/l	381,300.00	1.1	450000	6	A	
31	**P**	1	**373.400**	ug/l	18,670.00	2.0	450000	6	P	
39	**K**	1	**707.100**	ug/l	35,355.00	5.2	450000	45	A	
44	**Ca**	1	**1047.000**	ug/l	52,350.00	2.6	450000	45	P	
47	**Ti**	1	**638.600**	ug/l	31,930.00	4.1	4500	45	P	
51	**V**	1	**38.220**	ug/l	1,911.00	4.1	4500	45	P	
52	**Cr**	1	**11.000**	ug/l	550.00	4.8	4500	45	P	
55	**Mn**	1	**414.000**	ug/l	20,700.00	3.4	4500	45	A	
57	**Fe**	1	**12020.000**	ug/l	601,000.00	2.1	450000	74	A	
59	**Co**	1	**7.918**	ug/l	395.90	3.3	4500	45	P	
60	**Ni**	1	**6.642**	ug/l	332.10	5.8	4500	45	P	
63	**Cu**	1	**7.539**	ug/l	376.95	3.8	4500	45	P	
66	**Zn**	1	**24.910**	ug/l	1,245.50	1.9	4500	74	P	
75	**As**	1	**3.152**	ug/l	157.60	4.3	4500	45	P	
78	**Se**	1	**0.367**	ug/l	18.34	15.8	4500	45	P	
88	**Sr**	1	**10.920**	ug/l	546.00	3.4	4500	45	P	
95	**Mo**	1	**0.273**	ug/l	13.65	6.5	4500	74	P	
109	**Ag**	1	**0.023**	ug/l	1.17	21.5	4500	103	P	
111	**Cd**	1	**0.111**	ug/l	5.56	26.3	4500	103	P	
118	**Sn**	1	**0.581**	ug/l	29.05	4.5	4500	103	P	
123	**Sb**	1	**0.159**	ug/l	7.96	0.3	4500	103	P	
135	**Ba**	1	**52.850**	ug/l	2,642.50	0.3	4500	103	P	
200	**Hg**	1	**0.026**	ug/l	1.28	4.7	45	209	P	
205	**Tl**	1	**0.260**	ug/l	13.02	11.1	4500	165	P	
208	**Pb**	1	**5.957**	ug/l	297.85	0.8	4500	209	P	
238	**U**	1	**0.422**	ug/l	21.09	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75666	0.20	81580	**92.8**	30	-	125	
45	Sc	1	1636147	3.58	1568000	**104.3**	30	-	125	
74	Ge	1	4058161	1.13	3965000	**102.3**	30	-	125	
103	Rh	1	5752011	0.46	5756000	**99.9**	30	-	125	
165	Ho	1	2774900	0.96	2702000	**102.7**	30	-	125	
175	Lu	1	2369193	2.63	2349000	**100.9**	30	-	125	
209	Bi	1	2809386	1.13	2910000	**96.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\091SMPL.D\091SMPL.D#
Date Acquired: Sep 15 2011 09:48 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-1-G Vial Number: 3502
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.890**	ug/l	18.90	3.7	900	6	P	
23	**Na**	1	**181.700**	ug/l	1,817.00	3.7	450000	6	P	
24	**Mg**	1	**9188.000**	ug/l	91,880.00	1.1	450000	6	A	
27	**Al**	1	**37820.000**	ug/l	378,200.00	1.1	450000	6	A	
31	**P**	1	**1834.000**	ug/l	18,340.00	1.1	450000	6	P	
39	**K**	1	**3267.000**	ug/l	32,670.00	0.5	450000	45	A	
44	**Ca**	1	**5042.000**	ug/l	50,420.00	0.8	450000	45	P	
47	**Ti**	1	**3197.000**	ug/l	31,970.00	1.5	4500	45	A	
51	**V**	1	**192.500**	ug/l	1,925.00	1.5	4500	45	A	
52	**Cr**	1	**53.500**	ug/l	535.00	0.2	4500	45	P	
55	**Mn**	1	**1976.000**	ug/l	19,760.00	2.0	4500	45	A	
57	**Fe**	1	**58270.000**	ug/l	582,700.00	1.6	450000	74	A	
59	**Co**	1	**38.600**	ug/l	386.00	0.8	4500	45	P	
60	**Ni**	1	**31.380**	ug/l	313.80	0.8	4500	45	P	
63	**Cu**	1	**36.420**	ug/l	364.20	0.6	4500	45	P	
66	**Zn**	1	**122.800**	ug/l	1,228.00	1.4	4500	74	P	
75	**As**	1	**14.990**	ug/l	149.90	1.3	4500	45	P	
78	**Se**	1	**1.837**	ug/l	18.37	4.6	4500	45	P	
88	**Sr**	1	**53.560**	ug/l	535.60	1.6	4500	45	P	
95	**Mo**	1	**1.158**	ug/l	11.58	0.5	4500	74	P	
109	**Ag**	1	**0.095**	ug/l	0.95	8.8	4500	103	P	
111	**Cd**	1	**0.494**	ug/l	4.94	5.9	4500	103	P	
118	**Sn**	1	**2.291**	ug/l	22.91	2.9	4500	103	P	
123	**Sb**	1	**0.480**	ug/l	4.80	6.0	4500	103	P	
135	**Ba**	1	**266.300**	ug/l	2,663.00	1.6	4500	103	P	
200	**Hg**	1	**0.045**	ug/l	0.45	11.1	45	209	P	
205	**Tl**	1	**0.452**	ug/l	4.52	6.8	4500	165	P	
208	**Pb**	1	**29.070**	ug/l	290.70	1.2	4500	209	P	
238	**U**	1	**2.098**	ug/l	20.98	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68884	0.25	81580	**84.4**	30	-	125	
45	Sc	1	1550137	0.59	1568000	**98.9**	30	-	125	
74	Ge	1	3795352	1.08	3965000	**95.7**	30	-	125	
103	Rh	1	5297793	1.63	5756000	**92.0**	30	-	125	
165	Ho	1	2715455	1.65	2702000	**100.5**	30	-	125	
175	Lu	1	2327646	2.36	2349000	**99.1**	30	-	125	
209	Bi	1	2746121	1.24	2910000	**94.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\092SMPL.D\092SMPL.D#
Date Acquired: Sep 15 2011 09:52 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-1-H DU Vial Number: 3503
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.837**	ug/l	18.37	1.9	900	6	P	
23	**Na**	1	**180.000**	ug/l	1,800.00	5.5	450000	6	P	
24	**Mg**	1	**9284.000**	ug/l	92,840.00	3.9	450000	6	A	
27	**Al**	1	**38500.000**	ug/l	385,000.00	3.6	450000	6	A	
31	**P**	1	**1916.000**	ug/l	19,160.00	3.9	450000	6	P	
39	**K**	1	**3264.000**	ug/l	32,640.00	1.5	450000	45	A	
44	**Ca**	1	**5053.000**	ug/l	50,530.00	0.7	450000	45	P	
47	**Ti**	1	**3183.000**	ug/l	31,830.00	0.2	4500	45	A	
51	**V**	1	**191.300**	ug/l	1,913.00	0.8	4500	45	A	
52	**Cr**	1	**53.720**	ug/l	537.20	0.6	4500	45	P	
55	**Mn**	1	**1975.000**	ug/l	19,750.00	1.3	4500	45	A	
57	**Fe**	1	**58390.000**	ug/l	583,900.00	1.0	450000	74	A	
59	**Co**	1	**38.650**	ug/l	386.50	0.5	4500	45	P	
60	**Ni**	1	**32.110**	ug/l	321.10	1.0	4500	45	P	
63	**Cu**	1	**36.660**	ug/l	366.60	0.2	4500	45	P	
66	**Zn**	1	**122.800**	ug/l	1,228.00	0.2	4500	74	P	
75	**As**	1	**15.250**	ug/l	152.50	0.3	4500	45	P	
78	**Se**	1	**2.058**	ug/l	20.58	6.9	4500	45	P	
88	**Sr**	1	**53.870**	ug/l	538.70	0.6	4500	45	P	
95	**Mo**	1	**1.113**	ug/l	11.13	2.1	4500	74	P	
109	**Ag**	1	**0.095**	ug/l	0.95	8.3	4500	103	P	
111	**Cd**	1	**0.515**	ug/l	5.15	6.2	4500	103	P	
118	**Sn**	1	**2.204**	ug/l	22.04	2.6	4500	103	P	
123	**Sb**	1	**0.451**	ug/l	4.51	2.9	4500	103	P	
135	**Ba**	1	**267.300**	ug/l	2,673.00	0.5	4500	103	P	
200	**Hg**	1	**0.047**	ug/l	0.47	13.5	45	209	P	
205	**Tl**	1	**0.442**	ug/l	4.42	5.6	4500	165	P	
208	**Pb**	1	**29.520**	ug/l	295.20	1.7	4500	209	P	
238	**U**	1	**2.111**	ug/l	21.11	2.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68888	3.96	81580	**84.4**	30	-	125	
45	Sc	1	1588856	0.12	1568000	**101.3**	30	-	125	
74	Ge	1	3936303	0.34	3965000	**99.3**	30	-	125	
103	Rh	1	5426851	0.79	5756000	**94.3**	30	-	125	
165	Ho	1	2747183	0.37	2702000	**101.7**	30	-	125	
175	Lu	1	2357630	1.19	2349000	**100.4**	30	-	125	
209	Bi	1	2741978	0.92	2910000	**94.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\093SMPL.D\093SMPL.D#
Date Acquired: Sep 15 2011 09:56 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-1-I MS Vial Number: 3504
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.589**	ug/l	129.45	6.9	900	6	P	
23	**Na**	1	**489.100**	ug/l	24,455.00	0.5	450000	6	A	
24	**Mg**	1	**2591.000**	ug/l	129,550.00	0.7	450000	6	A	
27	**Al**	1	**10690.000**	ug/l	534,500.00	1.5	450000	6	A	
31	**P**	1	**799.900**	ug/l	39,995.00	0.2	450000	6	P	
39	**K**	1	**1202.000**	ug/l	60,100.00	4.5	450000	45	A	
44	**Ca**	1	**1563.000**	ug/l	78,150.00	3.4	450000	45	P	
47	**Ti**	1	**879.400**	ug/l	43,970.00	3.9	4500	45	P	
51	**V**	1	**66.640**	ug/l	3,332.00	3.8	4500	45	P	
52	**Cr**	1	**21.090**	ug/l	1,054.50	3.2	4500	45	P	
55	**Mn**	1	**516.800**	ug/l	25,840.00	3.7	4500	45	A	
57	**Fe**	1	**14910.000**	ug/l	745,500.00	2.4	450000	74	A	
59	**Co**	1	**29.630**	ug/l	1,481.50	5.0	4500	45	P	
60	**Ni**	1	**29.850**	ug/l	1,492.50	3.8	4500	45	P	
63	**Cu**	1	**19.670**	ug/l	983.50	4.0	4500	45	P	
66	**Zn**	1	**49.670**	ug/l	2,483.50	1.4	4500	74	P	
75	**As**	1	**91.190**	ug/l	4,559.50	4.6	4500	45	P	
78	**Se**	1	**84.360**	ug/l	4,218.00	4.7	4500	45	P	
88	**Sr**	1	**56.880**	ug/l	2,844.00	4.4	4500	45	P	
95	**Mo**	1	**100.600**	ug/l	5,030.00	1.9	4500	74	P	
109	**Ag**	1	**12.190**	ug/l	609.50	2.1	4500	103	P	
111	**Cd**	1	**2.216**	ug/l	110.80	1.0	4500	103	P	
118	**Sn**	1	**101.300**	ug/l	5,065.00	2.2	4500	103	P	
123	**Sb**	1	**21.780**	ug/l	1,089.00	2.2	4500	103	P	
135	**Ba**	1	**145.200**	ug/l	7,260.00	1.8	4500	103	P	
200	**Hg**	1	**1.025**	ug/l	51.25	4.6	45	209	P	
205	**Tl**	1	**81.090**	ug/l	4,054.50	4.3	4500	165	A	
208	**Pb**	1	**27.050**	ug/l	1,352.50	3.0	4500	209	P	
238	**U**	1	**0.484**	ug/l	24.22	5.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75483	1.50	81580	**92.5**	30	-	125	
45	Sc	1	1588461	4.18	1568000	**101.3**	30	-	125	
74	Ge	1	3966019	1.85	3965000	**100.0**	30	-	125	
103	Rh	1	5586599	0.82	5756000	**97.1**	30	-	125	
165	Ho	1	2760677	1.16	2702000	**102.2**	30	-	125	
175	Lu	1	2398617	2.22	2349000	**102.1**	30	-	125	
209	Bi	1	2855158	2.84	2910000	**98.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\094SMPL.D\094SMPL.D#
Date Acquired: Sep 15 2011 10:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-1-J MSD Vial Number: 3505
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.660**	ug/l	133.00	5.1	900	6	P	
23	**Na**	1	**540.700**	ug/l	27,035.00	1.0	450000	6	A	
24	**Mg**	1	**2620.000**	ug/l	131,000.00	0.9	450000	6	A	
27	**Al**	1	**10460.000**	ug/l	523,000.00	1.5	450000	6	A	
31	**P**	1	**814.100**	ug/l	40,705.00	1.6	450000	6	P	
39	**K**	1	**1223.000**	ug/l	61,150.00	2.0	450000	45	A	
44	**Ca**	1	**1498.000**	ug/l	74,900.00	1.0	450000	45	P	
47	**Ti**	1	**846.200**	ug/l	42,310.00	1.3	4500	45	P	
51	**V**	1	**64.470**	ug/l	3,223.50	2.2	4500	45	P	
52	**Cr**	1	**21.030**	ug/l	1,051.50	2.0	4500	45	P	
55	**Mn**	1	**404.600**	ug/l	20,230.00	1.8	4500	45	A	
57	**Fe**	1	**14160.000**	ug/l	708,000.00	1.7	450000	74	A	
59	**Co**	1	**28.410**	ug/l	1,420.50	1.5	4500	45	P	
60	**Ni**	1	**29.660**	ug/l	1,483.00	2.0	4500	45	P	
63	**Cu**	1	**19.390**	ug/l	969.50	2.0	4500	45	P	
66	**Zn**	1	**49.760**	ug/l	2,488.00	1.2	4500	74	P	
75	**As**	1	**92.830**	ug/l	4,641.50	1.8	4500	45	P	
78	**Se**	1	**86.320**	ug/l	4,316.00	1.4	4500	45	P	
88	**Sr**	1	**58.270**	ug/l	2,913.50	1.1	4500	45	P	
95	**Mo**	1	**105.300**	ug/l	5,265.00	0.3	4500	74	P	
109	**Ag**	1	**12.840**	ug/l	642.00	2.0	4500	103	P	
111	**Cd**	1	**2.291**	ug/l	114.55	2.2	4500	103	P	
118	**Sn**	1	**105.300**	ug/l	5,265.00	1.6	4500	103	P	
123	**Sb**	1	**24.200**	ug/l	1,210.00	1.3	4500	103	P	
135	**Ba**	1	**144.800**	ug/l	7,240.00	3.0	4500	103	P	
200	**Hg**	1	**1.062**	ug/l	53.10	1.1	45	209	P	
205	**Tl**	1	**83.860**	ug/l	4,193.00	5.0	4500	165	A	
208	**Pb**	1	**27.780**	ug/l	1,389.00	1.2	4500	209	P	
238	**U**	1	**0.465**	ug/l	23.25	0.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74206	1.63	81580	**91.0**	30	-	125	
45	Sc	1	1610006	1.26	1568000	**102.7**	30	-	125	
74	Ge	1	3964817	0.65	3965000	**100.0**	30	-	125	
103	Rh	1	5546291	1.47	5756000	**96.4**	30	-	125	
165	Ho	1	2737962	1.74	2702000	**101.3**	30	-	125	
175	Lu	1	2369384	1.85	2349000	**100.9**	30	-	125	
209	Bi	1	2774438	0.98	2910000	**95.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\095SMPL.D\095SMPL.D#
Date Acquired: Sep 15 2011 10:05 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-1-G PDS Vial Number: 3506
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.703**	ug/l	135.15	4.6	900	6	P	
23	**Na**	1	**523.100**	ug/l	26,155.00	6.1	450000	6	A	
24	**Mg**	1	**2710.000**	ug/l	135,500.00	1.4	450000	6	A	
27	**Al**	1	**11120.000**	ug/l	556,000.00	0.9	450000	6	A	
31	**P**	1	**801.900**	ug/l	40,095.00	1.5	450000	6	P	
39	**K**	1	**1248.000**	ug/l	62,400.00	4.2	450000	45	A	
44	**Ca**	1	**1563.000**	ug/l	78,150.00	3.5	450000	45	P	
47	**Ti**	1	**879.500**	ug/l	43,975.00	3.9	4500	45	P	
51	**V**	1	**66.890**	ug/l	3,344.50	3.8	4500	45	P	
52	**Cr**	1	**20.930**	ug/l	1,046.50	3.3	4500	45	P	
55	**Mn**	1	**510.400**	ug/l	25,520.00	3.8	4500	45	A	
57	**Fe**	1	**14940.000**	ug/l	747,000.00	1.3	450000	74	A	
59	**Co**	1	**29.440**	ug/l	1,472.00	2.4	4500	45	P	
60	**Ni**	1	**29.700**	ug/l	1,485.00	3.1	4500	45	P	
63	**Cu**	1	**19.730**	ug/l	986.50	3.1	4500	45	P	
66	**Zn**	1	**50.120**	ug/l	2,506.00	1.4	4500	74	P	
75	**As**	1	**90.090**	ug/l	4,504.50	3.2	4500	45	P	
78	**Se**	1	**84.050**	ug/l	4,202.50	3.4	4500	45	P	
88	**Sr**	1	**56.510**	ug/l	2,825.50	2.8	4500	45	P	
95	**Mo**	1	**101.700**	ug/l	5,085.00	0.7	4500	74	P	
109	**Ag**	1	**12.210**	ug/l	610.50	1.4	4500	103	P	
111	**Cd**	1	**2.186**	ug/l	109.30	4.8	4500	103	P	
118	**Sn**	1	**101.700**	ug/l	5,085.00	1.2	4500	103	P	
123	**Sb**	1	**21.760**	ug/l	1,088.00	0.9	4500	103	P	
135	**Ba**	1	**144.600**	ug/l	7,230.00	1.0	4500	103	P	
200	**Hg**	1	**1.040**	ug/l	52.00	3.0	45	209	P	
205	**Tl**	1	**80.520**	ug/l	4,026.00	4.7	4500	165	A	
208	**Pb**	1	**27.860**	ug/l	1,393.00	1.2	4500	209	P	
238	**U**	1	**0.497**	ug/l	24.84	1.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	77470	1.23	81580	**95.0**	30	-	125	
45	Sc	1	1651821	3.68	1568000	**105.3**	30	-	125	
74	Ge	1	4086675	0.73	3965000	**103.1**	30	-	125	
103	Rh	1	5739184	0.72	5756000	**99.7**	30	-	125	
165	Ho	1	2842112	2.16	2702000	**105.2**	30	-	125	
175	Lu	1	2441700	2.12	2349000	**103.9**	30	-	125	
209	Bi	1	2803638	0.74	2910000	**96.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\096SMPL.D\096SMPL.D#
Date Acquired: Sep 15 2011 10:09 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.410**	ug/l	50.41	1.1	900	6	P	
23	**Na**	1	**4994.000**	ug/l	4,994.00	1.0	450000	6	A	
24	**Mg**	1	**5066.000**	ug/l	5,066.00	1.6	450000	6	A	
27	**Al**	1	**520.300**	ug/l	520.30	1.4	450000	6	P	
31	**P**	1	**5044.000**	ug/l	5,044.00	1.4	450000	6	P	
39	**K**	1	**4719.000**	ug/l	4,719.00	2.5	450000	45	A	
44	**Ca**	1	**4832.000**	ug/l	4,832.00	0.9	450000	45	P	
47	**Ti**	1	**49.510**	ug/l	49.51	2.1	4500	45	P	
51	**V**	1	**48.540**	ug/l	48.54	1.3	4500	45	P	
52	**Cr**	1	**48.400**	ug/l	48.40	1.4	4500	45	P	
55	**Mn**	1	**49.380**	ug/l	49.38	0.9	4500	45	P	
57	**Fe**	1	**4937.000**	ug/l	4,937.00	3.2	450000	74	A	
59	**Co**	1	**47.630**	ug/l	47.63	1.2	4500	45	P	
60	**Ni**	1	**49.630**	ug/l	49.63	1.1	4500	45	P	
63	**Cu**	1	**49.890**	ug/l	49.89	0.9	4500	45	P	
66	**Zn**	1	**48.810**	ug/l	48.81	1.4	4500	74	P	
75	**As**	1	**50.190**	ug/l	50.19	0.7	4500	45	P	
78	**Se**	1	**49.930**	ug/l	49.93	1.0	4500	45	P	
88	**Sr**	1	**49.460**	ug/l	49.46	0.6	4500	45	P	
95	**Mo**	1	**48.300**	ug/l	48.30	0.6	4500	74	P	
109	**Ag**	1	**47.200**	ug/l	47.20	1.1	4500	103	P	
111	**Cd**	1	**47.500**	ug/l	47.50	1.4	4500	103	P	
118	**Sn**	1	**48.350**	ug/l	48.35	0.8	4500	103	P	
123	**Sb**	1	**48.480**	ug/l	48.48	0.8	4500	103	P	
135	**Ba**	1	**48.300**	ug/l	48.30	1.4	4500	103	P	
200	**Hg**	1	**2.437**	ug/l	2.44	2.5	45	209	P	
205	**Tl**	1	**48.570**	ug/l	48.57	3.7	4500	165	A	
208	**Pb**	1	**47.660**	ug/l	47.66	2.0	4500	209	P	
238	**U**	1	**48.250**	ug/l	48.25	1.3	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79617	1.13	81580	**97.6**	30	-	125	
45	Sc	1	1622837	0.87	1568000	**103.5**	30	-	125	
74	Ge	1	4049906	1.09	3965000	**102.1**	30	-	125	
103	Rh	1	5620425	0.71	5756000	**97.6**	30	-	125	
165	Ho	1	2731995	0.93	2702000	**101.1**	30	-	125	
175	Lu	1	2380826	0.52	2349000	**101.4**	30	-	125	
209	Bi	1	2846010	1.39	2910000	**97.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\097SMPL.D\097SMPL.D#
Date Acquired: Sep 15 2011 10:14 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.00	567.8	900	6	P	
23	**Na**	1	**9.684**	ug/l	9.68	15.6	450000	6	P	
24	**Mg**	1	**1.730**	ug/l	1.73	21.6	450000	6	P	
27	**Al**	1	**1.189**	ug/l	1.19	24.9	450000	6	P	
31	**P**	1	**1.752**	ug/l	1.75	69.2	450000	6	P	
39	**K**	1	**-6.065**	ug/l	-6.07	20.1	450000	45	P	
44	**Ca**	1	**1.857**	ug/l	1.86	11.0	450000	45	P	
47	**Ti**	1	**0.241**	ug/l	0.24	21.9	4500	45	P	
51	**V**	1	**-0.219**	ug/l	-0.22	5.7	4500	45	P	
52	**Cr**	1	**0.011**	ug/l	0.01	94.5	4500	45	P	
55	**Mn**	1	**0.080**	ug/l	0.08	11.0	4500	45	P	
57	**Fe**	1	**4.721**	ug/l	4.72	10.2	450000	74	P	
59	**Co**	1	**0.014**	ug/l	0.01	22.2	4500	45	P	
60	**Ni**	1	**0.011**	ug/l	0.01	64.0	4500	45	P	
63	**Cu**	1	**-0.031**	ug/l	-0.03	21.4	4500	45	P	
66	**Zn**	1	**0.032**	ug/l	0.03	9.8	4500	74	P	
75	**As**	1	**0.013**	ug/l	0.01	53.1	4500	45	P	
78	**Se**	1	**0.041**	ug/l	0.04	144.9	4500	45	P	
88	**Sr**	1	**0.026**	ug/l	0.03	24.8	4500	45	P	
95	**Mo**	1	**0.161**	ug/l	0.16	34.2	4500	74	P	
109	**Ag**	1	**0.015**	ug/l	0.02	36.8	4500	103	P	
111	**Cd**	1	**0.008**	ug/l	0.01	178.3	4500	103	P	
118	**Sn**	1	**0.267**	ug/l	0.27	21.1	4500	103	P	
123	**Sb**	1	**0.077**	ug/l	0.08	17.9	4500	103	P	
135	**Ba**	1	**0.033**	ug/l	0.03	45.5	4500	103	P	
200	**Hg**	1	**0.022**	ug/l	0.02	7.6	45	209	P	
205	**Tl**	1	**0.488**	ug/l	0.49	12.1	4500	165	P	
208	**Pb**	1	**0.030**	ug/l	0.03	53.4	4500	209	P	
238	**U**	1	**0.021**	ug/l	0.02	21.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	75205	0.59	81580	**92.2**	30	-	125	
45	Sc	1	1608463	2.25	1568000	**102.6**	30	-	125	
74	Ge	1	4103982	1.15	3965000	**103.5**	30	-	125	
103	Rh	1	5804002	1.77	5756000	**100.8**	30	-	125	
165	Ho	1	2728078	1.50	2702000	**101.0**	30	-	125	
175	Lu	1	2406924	1.64	2349000	**102.5**	30	-	125	
209	Bi	1	2904296	1.94	2910000	**99.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\098SMPL.D\098SMPL.D#
Date Acquired: Sep 15 2011 10:18 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-2-C Vial Number: 4101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.762**	ug/l	17.62	4.4	900	6	P	
23	**Na**	1	**229.100**	ug/l	2,291.00	1.6	450000	6	P	
24	**Mg**	1	**13780.000**	ug/l	137,800.00	1.4	450000	6	A	
27	**Al**	1	**53090.000**	ug/l	530,900.00	0.8	450000	6	A	
31	**P**	1	**1183.000**	ug/l	11,830.00	0.5	450000	6	P	
39	**K**	1	**2050.000**	ug/l	20,500.00	3.3	450000	45	A	
44	**Ca**	1	**8830.000**	ug/l	88,300.00	2.8	450000	45	P	
47	**Ti**	1	**2821.000**	ug/l	28,210.00	1.5	4500	45	A	
51	**V**	1	**155.200**	ug/l	1,552.00	2.4	4500	45	A	
52	**Cr**	1	**55.810**	ug/l	558.10	2.6	4500	45	P	
55	**Mn**	1	**1558.000**	ug/l	15,580.00	2.5	4500	45	A	
57	**Fe**	1	**74990.000**	ug/l	749,900.00	1.1	450000	74	A	
59	**Co**	1	**34.020**	ug/l	340.20	3.6	4500	45	P	
60	**Ni**	1	**44.880**	ug/l	448.80	3.5	4500	45	P	
63	**Cu**	1	**55.170**	ug/l	551.70	3.3	4500	45	P	
66	**Zn**	1	**158.100**	ug/l	1,581.00	1.2	4500	74	P	
75	**As**	1	**12.350**	ug/l	123.50	2.7	4500	45	P	
78	**Se**	1	**1.516**	ug/l	15.16	5.8	4500	45	P	
88	**Sr**	1	**95.360**	ug/l	953.60	3.4	4500	45	P	
95	**Mo**	1	**0.706**	ug/l	7.06	2.4	4500	74	P	
109	**Ag**	1	**0.081**	ug/l	0.81	5.8	4500	103	P	
111	**Cd**	1	**0.778**	ug/l	7.78	12.3	4500	103	P	
118	**Sn**	1	**2.754**	ug/l	27.54	2.9	4500	103	P	
123	**Sb**	1	**0.414**	ug/l	4.14	1.0	4500	103	P	
135	**Ba**	1	**438.500**	ug/l	4,385.00	1.5	4500	103	P	
200	**Hg**	1	**0.063**	ug/l	0.63	11.5	45	209	P	
205	**Tl**	1	**0.547**	ug/l	5.47	8.6	4500	165	P	
208	**Pb**	1	**24.260**	ug/l	242.60	1.6	4500	209	P	
238	**U**	1	**1.934**	ug/l	19.34	0.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66915	1.04	81580	**82.0**	30	-	125	
45	Sc	1	1579300	3.02	1568000	**100.7**	30	-	125	
74	Ge	1	3864785	0.37	3965000	**97.5**	30	-	125	
103	Rh	1	5367247	1.23	5756000	**93.2**	30	-	125	
165	Ho	1	2745225	2.02	2702000	**101.6**	30	-	125	
175	Lu	1	2305969	1.16	2349000	**98.2**	30	-	125	
209	Bi	1	2742307	1.25	2910000	**94.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\099SMPL.D\099SMPL.D#
Date Acquired: Sep 15 2011 10:22 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-3-C Vial Number: 4102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.067**	ug/l	20.67	3.7	900	6	P	
23	**Na**	1	**198.400**	ug/l	1,984.00	2.3	450000	6	P	
24	**Mg**	1	**9773.000**	ug/l	97,730.00	0.7	450000	6	A	
27	**Al**	1	**41620.000**	ug/l	416,200.00	1.6	450000	6	A	
31	**P**	1	**2658.000**	ug/l	26,580.00	1.5	450000	6	P	
39	**K**	1	**3478.000**	ug/l	34,780.00	2.6	450000	45	A	
44	**Ca**	1	**5327.000**	ug/l	53,270.00	2.3	450000	45	P	
47	**Ti**	1	**3323.000**	ug/l	33,230.00	2.6	4500	45	A	
51	**V**	1	**224.200**	ug/l	2,242.00	4.9	4500	45	A	
52	**Cr**	1	**61.940**	ug/l	619.40	2.1	4500	45	P	
55	**Mn**	1	**1269.000**	ug/l	12,690.00	2.8	4500	45	A	
57	**Fe**	1	**68160.000**	ug/l	681,600.00	1.0	450000	74	A	
59	**Co**	1	**32.360**	ug/l	323.60	2.0	4500	45	P	
60	**Ni**	1	**30.530**	ug/l	305.30	3.0	4500	45	P	
63	**Cu**	1	**40.750**	ug/l	407.50	3.3	4500	45	P	
66	**Zn**	1	**125.800**	ug/l	1,258.00	1.6	4500	74	P	
75	**As**	1	**20.210**	ug/l	202.10	3.4	4500	45	P	
78	**Se**	1	**2.280**	ug/l	22.80	6.2	4500	45	P	
88	**Sr**	1	**55.750**	ug/l	557.50	1.9	4500	45	P	
95	**Mo**	1	**1.095**	ug/l	10.95	4.1	4500	74	P	
109	**Ag**	1	**0.111**	ug/l	1.11	5.6	4500	103	P	
111	**Cd**	1	**0.491**	ug/l	4.91	10.8	4500	103	P	
118	**Sn**	1	**2.259**	ug/l	22.59	2.9	4500	103	P	
123	**Sb**	1	**0.470**	ug/l	4.70	2.5	4500	103	P	
135	**Ba**	1	**269.300**	ug/l	2,693.00	1.2	4500	103	P	
200	**Hg**	1	**0.042**	ug/l	0.42	17.1	45	209	P	
205	**Tl**	1	**0.469**	ug/l	4.69	7.9	4500	165	P	
208	**Pb**	1	**27.980**	ug/l	279.80	0.6	4500	209	P	
238	**U**	1	**2.253**	ug/l	22.53	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66568	1.39	81580	**81.6**	30	-	125	
45	Sc	1	1569677	2.03	1568000	**100.1**	30	-	125	
74	Ge	1	3882728	0.95	3965000	**97.9**	30	-	125	
103	Rh	1	5492591	0.91	5756000	**95.4**	30	-	125	
165	Ho	1	2758601	1.93	2702000	**102.1**	30	-	125	
175	Lu	1	2361283	0.61	2349000	**100.5**	30	-	125	
209	Bi	1	2739248	1.06	2910000	**94.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\100SMPL.D\100SMPL.D#
Date Acquired: Sep 15 2011 10:27 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-4-C Vial Number: 4103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.831**	ug/l	18.31	4.3	900	6	P	
23	**Na**	1	**461.500**	ug/l	4,615.00	1.9	450000	6	P	
24	**Mg**	1	**8205.000**	ug/l	82,050.00	1.5	450000	6	A	
27	**Al**	1	**35990.000**	ug/l	359,900.00	1.2	450000	6	A	
31	**P**	1	**2904.000**	ug/l	29,040.00	1.3	450000	6	P	
39	**K**	1	**1481.000**	ug/l	14,810.00	2.8	450000	45	A	
44	**Ca**	1	**5161.000**	ug/l	51,610.00	3.2	450000	45	P	
47	**Ti**	1	**2159.000**	ug/l	21,590.00	3.6	4500	45	P	
51	**V**	1	**210.200**	ug/l	2,102.00	2.8	4500	45	A	
52	**Cr**	1	**61.070**	ug/l	610.70	4.1	4500	45	P	
55	**Mn**	1	**1315.000**	ug/l	13,150.00	2.1	4500	45	A	
57	**Fe**	1	**80280.000**	ug/l	802,800.00	0.6	450000	74	A	
59	**Co**	1	**44.220**	ug/l	442.20	4.2	4500	45	P	
60	**Ni**	1	**38.440**	ug/l	384.40	4.6	4500	45	P	
63	**Cu**	1	**115.400**	ug/l	1,154.00	4.0	4500	45	P	
66	**Zn**	1	**231.800**	ug/l	2,318.00	1.1	4500	74	P	
75	**As**	1	**18.910**	ug/l	189.10	5.0	4500	45	P	
78	**Se**	1	**1.803**	ug/l	18.03	9.9	4500	45	P	
88	**Sr**	1	**70.900**	ug/l	709.00	3.9	4500	45	P	
95	**Mo**	1	**1.175**	ug/l	11.75	2.5	4500	74	P	
109	**Ag**	1	**0.333**	ug/l	3.33	1.8	4500	103	P	
111	**Cd**	1	**4.084**	ug/l	40.84	3.5	4500	103	P	
118	**Sn**	1	**7.152**	ug/l	71.52	0.1	4500	103	P	
123	**Sb**	1	**6.631**	ug/l	66.31	1.5	4500	103	P	
135	**Ba**	1	**412.200**	ug/l	4,122.00	0.1	4500	103	P	
200	**Hg**	1	**0.818**	ug/l	8.18	3.8	45	209	P	
205	**Tl**	1	**0.316**	ug/l	3.16	8.0	4500	165	P	
208	**Pb**	1	**209.200**	ug/l	2,092.00	0.2	4500	209	A	
238	**U**	1	**1.235**	ug/l	12.35	2.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66085	1.58	81580	**81.0**	30	-	125	
45	Sc	1	1566390	4.38	1568000	**99.9**	30	-	125	
74	Ge	1	3877981	0.43	3965000	**97.8**	30	-	125	
103	Rh	1	5414073	0.55	5756000	**94.1**	30	-	125	
165	Ho	1	2776355	1.31	2702000	**102.8**	30	-	125	
175	Lu	1	2369007	1.33	2349000	**100.9**	30	-	125	
209	Bi	1	2801105	0.80	2910000	**96.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\101SMPL.D\101SMPL.D#
Date Acquired: Sep 15 2011 10:31 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-5-C Vial Number: 4104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.725**	ug/l	17.25	9.6	900	6	P	
23	**Na**	1	**527.700**	ug/l	5,277.00	0.7	450000	6	A	
24	**Mg**	1	**8214.000**	ug/l	82,140.00	0.9	450000	6	A	
27	**Al**	1	**36420.000**	ug/l	364,200.00	1.7	450000	6	A	
31	**P**	1	**2207.000**	ug/l	22,070.00	1.1	450000	6	P	
39	**K**	1	**1595.000**	ug/l	15,950.00	1.4	450000	45	A	
44	**Ca**	1	**5437.000**	ug/l	54,370.00	1.5	450000	45	P	
47	**Ti**	1	**2392.000**	ug/l	23,920.00	1.8	4500	45	P	
51	**V**	1	**209.400**	ug/l	2,094.00	1.9	4500	45	A	
52	**Cr**	1	**62.630**	ug/l	626.30	2.5	4500	45	P	
55	**Mn**	1	**1279.000**	ug/l	12,790.00	3.2	4500	45	A	
57	**Fe**	1	**72090.000**	ug/l	720,900.00	2.3	450000	74	A	
59	**Co**	1	**43.380**	ug/l	433.80	3.2	4500	45	P	
60	**Ni**	1	**39.330**	ug/l	393.30	2.6	4500	45	P	
63	**Cu**	1	**118.500**	ug/l	1,185.00	2.4	4500	45	P	
66	**Zn**	1	**236.500**	ug/l	2,365.00	1.0	4500	74	P	
75	**As**	1	**13.930**	ug/l	139.30	2.7	4500	45	P	
78	**Se**	1	**1.726**	ug/l	17.26	4.6	4500	45	P	
88	**Sr**	1	**80.230**	ug/l	802.30	1.8	4500	45	P	
95	**Mo**	1	**0.936**	ug/l	9.36	4.8	4500	74	P	
109	**Ag**	1	**0.360**	ug/l	3.60	2.3	4500	103	P	
111	**Cd**	1	**4.380**	ug/l	43.80	0.5	4500	103	P	
118	**Sn**	1	**6.857**	ug/l	68.57	1.2	4500	103	P	
123	**Sb**	1	**6.644**	ug/l	66.44	1.0	4500	103	P	
135	**Ba**	1	**414.800**	ug/l	4,148.00	1.9	4500	103	P	
200	**Hg**	1	**0.781**	ug/l	7.81	3.7	45	209	P	
205	**Tl**	1	**0.297**	ug/l	2.97	1.8	4500	165	P	
208	**Pb**	1	**190.900**	ug/l	1,909.00	0.8	4500	209	A	
238	**U**	1	**1.300**	ug/l	13.00	1.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64845	1.88	81580	**79.5**	30	-	125	
45	Sc	1	1487766	3.38	1568000	**94.9**	30	-	125	
74	Ge	1	3733578	1.79	3965000	**94.2**	30	-	125	
103	Rh	1	5314513	0.64	5756000	**92.3**	30	-	125	
165	Ho	1	2685032	3.46	2702000	**99.4**	30	-	125	
175	Lu	1	2289146	2.93	2349000	**97.5**	30	-	125	
209	Bi	1	2742951	1.89	2910000	**94.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\102SMPL.D\102SMPL.D#
Date Acquired: Sep 15 2011 10:35 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-18-C Vial Number: 4105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.663**	ug/l	16.63	7.0	900	6	P	
23	**Na**	1	**322.900**	ug/l	3,229.00	1.1	450000	6	P	
24	**Mg**	1	**10580.000**	ug/l	105,800.00	1.3	450000	6	A	
27	**Al**	1	**45860.000**	ug/l	458,600.00	1.0	450000	6	A	
31	**P**	1	**2575.000**	ug/l	25,750.00	1.6	450000	6	P	
39	**K**	1	**2609.000**	ug/l	26,090.00	0.7	450000	45	A	
44	**Ca**	1	**9770.000**	ug/l	97,700.00	1.4	450000	45	P	
47	**Ti**	1	**3334.000**	ug/l	33,340.00	1.6	4500	45	A	
51	**V**	1	**171.900**	ug/l	1,719.00	0.8	4500	45	A	
52	**Cr**	1	**113.200**	ug/l	1,132.00	2.9	4500	45	A	
55	**Mn**	1	**1243.000**	ug/l	12,430.00	2.7	4500	45	A	
57	**Fe**	1	**68480.000**	ug/l	684,800.00	1.0	450000	74	A	
59	**Co**	1	**33.330**	ug/l	333.30	1.2	4500	45	P	
60	**Ni**	1	**43.760**	ug/l	437.60	1.3	4500	45	P	
63	**Cu**	1	**149.100**	ug/l	1,491.00	1.0	4500	45	A	
66	**Zn**	1	**615.900**	ug/l	6,159.00	1.9	4500	74	A	
75	**As**	1	**33.350**	ug/l	333.50	1.6	4500	45	P	
78	**Se**	1	**1.754**	ug/l	17.54	3.2	4500	45	P	
88	**Sr**	1	**86.530**	ug/l	865.30	1.5	4500	45	P	
95	**Mo**	1	**1.348**	ug/l	13.48	2.1	4500	74	P	
109	**Ag**	1	**0.489**	ug/l	4.89	4.0	4500	103	P	
111	**Cd**	1	**6.053**	ug/l	60.53	3.2	4500	103	P	
118	**Sn**	1	**38.450**	ug/l	384.50	2.1	4500	103	P	
123	**Sb**	1	**3.440**	ug/l	34.40	0.7	4500	103	P	
135	**Ba**	1	**600.800**	ug/l	6,008.00	1.1	4500	103	P	
200	**Hg**	1	**0.297**	ug/l	2.97	6.2	45	209	P	
205	**Tl**	1	**0.393**	ug/l	3.93	5.3	4500	165	P	
208	**Pb**	1	**914.700**	ug/l	9,147.00	2.5	4500	209	A	
238	**U**	1	**1.661**	ug/l	16.61	1.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64210	0.27	81580	**78.7**	30	-	125	
45	Sc	1	1509872	1.88	1568000	**96.3**	30	-	125	
74	Ge	1	3738995	2.55	3965000	**94.3**	30	-	125	
103	Rh	1	5298430	2.36	5756000	**92.1**	30	-	125	
165	Ho	1	2699353	1.82	2702000	**99.9**	30	-	125	
175	Lu	1	2312936	2.66	2349000	**98.5**	30	-	125	
209	Bi	1	2736209	2.45	2910000	**94.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\103SMPL.D\103SMPL.D#
Date Acquired: Sep 15 2011 10:40 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-7-B Vial Number: 4106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.488**	ug/l	14.88	9.0	900	6	P	
23	**Na**	1	**340.200**	ug/l	3,402.00	3.2	450000	6	P	
24	**Mg**	1	**14120.000**	ug/l	141,200.00	2.3	450000	6	A	
27	**Al**	1	**100000.000**	ug/l	1,000,000.00	2.3	450000	6	A	
31	**P**	1	**856.800**	ug/l	8,568.00	2.0	450000	6	P	
39	**K**	1	**320.200**	ug/l	3,202.00	2.8	450000	45	P	
44	**Ca**	1	**7536.000**	ug/l	75,360.00	1.8	450000	45	P	
47	**Ti**	1	**7142.000**	ug/l	71,420.00	1.0	4500	45	A	Fail
51	**V**	1	**452.500**	ug/l	4,525.00	1.5	4500	45	A	
52	**Cr**	1	**219.200**	ug/l	2,192.00	1.4	4500	45	A	
55	**Mn**	1	**4207.000**	ug/l	42,070.00	1.2	4500	45	A	
57	**Fe**	1	**140700.000**	ug/l	1,407,000.00	2.1	450000	74	A	
59	**Co**	1	**133.700**	ug/l	1,337.00	1.4	4500	45	A	
60	**Ni**	1	**145.600**	ug/l	1,456.00	1.8	4500	45	P	
63	**Cu**	1	**287.100**	ug/l	2,871.00	2.0	4500	45	A	
66	**Zn**	1	**154.900**	ug/l	1,549.00	1.0	4500	74	P	
75	**As**	1	**2.090**	ug/l	20.90	3.9	4500	45	P	
78	**Se**	1	**1.661**	ug/l	16.61	5.7	4500	45	P	
88	**Sr**	1	**89.910**	ug/l	899.10	1.8	4500	45	P	
95	**Mo**	1	**0.629**	ug/l	6.29	4.3	4500	74	P	
109	**Ag**	1	**0.040**	ug/l	0.40	4.7	4500	103	P	
111	**Cd**	1	**0.733**	ug/l	7.33	5.7	4500	103	P	
118	**Sn**	1	**3.438**	ug/l	34.38	1.7	4500	103	P	
123	**Sb**	1	**0.147**	ug/l	1.47	8.2	4500	103	P	
135	**Ba**	1	**577.100**	ug/l	5,771.00	1.8	4500	103	P	
200	**Hg**	1	**0.047**	ug/l	0.47	5.2	45	209	P	
205	**Tl**	1	**0.113**	ug/l	1.13	12.3	4500	165	P	
208	**Pb**	1	**20.830**	ug/l	208.30	0.9	4500	209	P	
238	**U**	1	**0.475**	ug/l	4.75	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61005	3.56	81580	**74.8**	30	-	125	
45	Sc	1	1656623	1.04	1568000	**105.7**	30	-	125	
74	Ge	1	3707964	0.64	3965000	**93.5**	30	-	125	
103	Rh	1	5212689	1.27	5756000	**90.6**	30	-	125	
165	Ho	1	2708563	1.08	2702000	**100.2**	30	-	125	
175	Lu	1	2273124	1.30	2349000	**96.8**	30	-	125	
209	Bi	1	2619485	0.88	2910000	**90.0**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\104SMPL.D\104SMPL.D#
Date Acquired: Sep 15 2011 10:44 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-8-B Vial Number: 4107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.548**	ug/l	5.48	8.4	900	6	P	
23	**Na**	1	**594.200**	ug/l	5,942.00	3.3	450000	6	A	
24	**Mg**	1	**5596.000**	ug/l	55,960.00	1.4	450000	6	A	
27	**Al**	1	**13490.000**	ug/l	134,900.00	1.7	450000	6	A	
31	**P**	1	**1608.000**	ug/l	16,080.00	2.6	450000	6	P	
39	**K**	1	**875.800**	ug/l	8,758.00	0.5	450000	45	A	
44	**Ca**	1	**6412.000**	ug/l	64,120.00	1.0	450000	45	P	
47	**Ti**	1	**1242.000**	ug/l	12,420.00	2.1	4500	45	P	
51	**V**	1	**60.450**	ug/l	604.50	2.3	4500	45	P	
52	**Cr**	1	**14.700**	ug/l	147.00	2.8	4500	45	P	
55	**Mn**	1	**451.700**	ug/l	4,517.00	1.6	4500	45	A	
57	**Fe**	1	**33850.000**	ug/l	338,500.00	1.3	450000	74	A	
59	**Co**	1	**11.940**	ug/l	119.40	3.1	4500	45	P	
60	**Ni**	1	**32.200**	ug/l	322.00	2.0	4500	45	P	
63	**Cu**	1	**31.140**	ug/l	311.40	2.6	4500	45	P	
66	**Zn**	1	**50.990**	ug/l	509.90	3.1	4500	74	P	
75	**As**	1	**4.932**	ug/l	49.32	4.1	4500	45	P	
78	**Se**	1	**0.911**	ug/l	9.11	12.9	4500	45	P	
88	**Sr**	1	**50.020**	ug/l	500.20	2.1	4500	45	P	
95	**Mo**	1	**0.713**	ug/l	7.13	6.1	4500	74	P	
109	**Ag**	1	**0.016**	ug/l	0.16	15.4	4500	103	P	
111	**Cd**	1	**0.244**	ug/l	2.44	45.1	4500	103	P	
118	**Sn**	1	**1.682**	ug/l	16.82	1.1	4500	103	P	
123	**Sb**	1	**0.112**	ug/l	1.12	8.5	4500	103	P	
135	**Ba**	1	**75.360**	ug/l	753.60	1.3	4500	103	P	
200	**Hg**	1	**0.009**	ug/l	0.09	19.4	45	209	P	
205	**Tl**	1	**0.072**	ug/l	0.72	11.3	4500	165	P	
208	**Pb**	1	**8.645**	ug/l	86.45	2.3	4500	209	P	
238	**U**	1	**0.500**	ug/l	5.00	2.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64589	2.05	81580	**79.2**	30	-	125	
45	Sc	1	1468429	2.32	1568000	**93.6**	30	-	125	
74	Ge	1	3756120	2.72	3965000	**94.7**	30	-	125	
103	Rh	1	5322548	1.21	5756000	**92.5**	30	-	125	
165	Ho	1	2730750	2.05	2702000	**101.1**	30	-	125	
175	Lu	1	2381159	1.64	2349000	**101.4**	30	-	125	
209	Bi	1	2816949	1.20	2910000	**96.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\105SMPL.D\105SMPL.D#
Date Acquired: Sep 15 2011 10:48 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-9-B Vial Number: 4108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.479**	ug/l	4.79	6.3	900	6	P	
23	Na	1	**1292.000**	ug/l	12,920.00	2.0	450000	6	A	
24	Mg	1	**6037.000**	ug/l	60,370.00	2.8	450000	6	A	
27	Al	1	**23010.000**	ug/l	230,100.00	3.1	450000	6	A	
31	P	1	**1538.000**	ug/l	15,380.00	1.7	450000	6	P	
39	K	1	**905.500**	ug/l	9,055.00	3.3	450000	45	A	
44	Ca	1	**10710.000**	ug/l	107,100.00	3.6	450000	45	P	
47	Ti	1	**1700.000**	ug/l	17,000.00	3.6	4500	45	P	
51	V	1	**89.850**	ug/l	898.50	3.3	4500	45	P	
52	Cr	1	**20.360**	ug/l	203.60	3.9	4500	45	P	
55	Mn	1	**437.400**	ug/l	4,374.00	3.7	4500	45	A	
57	Fe	1	**34240.000**	ug/l	342,400.00	1.4	450000	74	A	
59	Co	1	**13.600**	ug/l	136.00	4.3	4500	45	P	
60	Ni	1	**38.590**	ug/l	385.90	3.6	4500	45	P	
63	Cu	1	**47.770**	ug/l	477.70	3.9	4500	45	P	
66	Zn	1	**50.360**	ug/l	503.60	1.1	4500	74	P	
75	As	1	**4.213**	ug/l	42.13	5.6	4500	45	P	
78	Se	1	**0.961**	ug/l	9.61	16.0	4500	45	P	
88	Sr	1	**95.210**	ug/l	952.10	3.8	4500	45	P	
95	Mo	1	**0.620**	ug/l	6.20	4.4	4500	74	P	
109	Ag	1	**0.024**	ug/l	0.24	27.3	4500	103	P	
111	Cd	1	**0.218**	ug/l	2.18	9.8	4500	103	P	
118	Sn	1	**1.532**	ug/l	15.32	0.8	4500	103	P	
123	Sb	1	**0.100**	ug/l	1.00	4.1	4500	103	P	
135	Ba	1	**83.380**	ug/l	833.80	1.4	4500	103	P	
200	Hg	1	**0.018**	ug/l	0.18	13.1	45	209	P	
205	Tl	1	**0.067**	ug/l	0.67	16.0	4500	165	P	
208	Pb	1	**4.994**	ug/l	49.94	2.5	4500	209	P	
238	U	1	**0.397**	ug/l	3.97	0.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65540	1.00	81580	**80.3**	30	-	125	
45	Sc	1	1486141	4.34	1568000	**94.8**	30	-	125	
74	Ge	1	3852872	1.40	3965000	**97.2**	30	-	125	
103	Rh	1	5434510	2.18	5756000	**94.4**	30	-	125	
165	Ho	1	2734577	1.55	2702000	**101.2**	30	-	125	
175	Lu	1	2333129	1.42	2349000	**99.3**	30	-	125	
209	Bi	1	2791924	1.88	2910000	**95.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\106SMPL.D\106SMPL.D#
Date Acquired: Sep 15 2011 10:53 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-10-B Vial Number: 4109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.490**	ug/l	24.90	4.0	900	6	P	
23	**Na**	1	**170.500**	ug/l	1,705.00	2.0	450000	6	P	
24	**Mg**	1	**7006.000**	ug/l	70,060.00	1.7	450000	6	A	
27	**Al**	1	**71660.000**	ug/l	716,600.00	2.5	450000	6	A	
31	**P**	1	**2033.000**	ug/l	20,330.00	1.3	450000	6	P	
39	**K**	1	**2558.000**	ug/l	25,580.00	2.6	450000	45	A	
44	**Ca**	1	**6598.000**	ug/l	65,980.00	2.3	450000	45	P	
47	**Ti**	1	**8913.000**	ug/l	89,130.00	3.1	4500	45	A	Fail
51	**V**	1	**583.900**	ug/l	5,839.00	2.6	4500	45	A	
52	**Cr**	1	**325.800**	ug/l	3,258.00	3.2	4500	45	A	
55	**Mn**	1	**4547.000**	ug/l	45,470.00	2.9	4500	45	A	Fail
57	**Fe**	1	**183500.000**	ug/l	1,835,000.00	0.8	450000	74	A	
59	**Co**	1	**152.800**	ug/l	1,528.00	2.3	4500	45	A	
60	**Ni**	1	**73.860**	ug/l	738.60	3.7	4500	45	P	
63	**Cu**	1	**266.200**	ug/l	2,662.00	1.6	4500	45	A	
66	**Zn**	1	**228.200**	ug/l	2,282.00	1.1	4500	74	P	
75	**As**	1	**6.427**	ug/l	64.27	1.6	4500	45	P	
78	**Se**	1	**2.095**	ug/l	20.95	8.8	4500	45	P	
88	**Sr**	1	**48.670**	ug/l	486.70	2.6	4500	45	P	
95	**Mo**	1	**1.114**	ug/l	11.14	1.1	4500	74	P	
109	**Ag**	1	**0.066**	ug/l	0.66	14.5	4500	103	P	
111	**Cd**	1	**1.200**	ug/l	12.00	2.3	4500	103	P	
118	**Sn**	1	**3.639**	ug/l	36.39	1.1	4500	103	P	
123	**Sb**	1	**0.325**	ug/l	3.25	2.7	4500	103	P	
135	**Ba**	1	**457.400**	ug/l	4,574.00	1.7	4500	103	P	
200	**Hg**	1	**0.063**	ug/l	0.63	13.4	45	209	P	
205	**Tl**	1	**0.213**	ug/l	2.13	6.6	4500	165	P	
208	**Pb**	1	**181.300**	ug/l	1,813.00	0.8	4500	209	A	
238	**U**	1	**1.337**	ug/l	13.37	2.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60054	3.23	81580	**73.6**	30	-	125	
45	Sc	1	1592210	0.73	1568000	**101.5**	30	-	125	
74	Ge	1	3708298	1.73	3965000	**93.5**	30	-	125	
103	Rh	1	5128085	1.25	5756000	**89.1**	30	-	125	
165	Ho	1	2665771	0.54	2702000	**98.7**	30	-	125	
175	Lu	1	2248604	1.43	2349000	**95.7**	30	-	125	
209	Bi	1	2618175	1.36	2910000	**90.0**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\107SMPL.D\107SMPL.D#
Date Acquired: Sep 15 2011 10:57 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-17-C Vial Number: 4110
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.793**	ug/l	17.93	8.5	900	6	P	
23	**Na**	1	**371.800**	ug/l	3,718.00	1.7	450000	6	P	
24	**Mg**	1	**10570.000**	ug/l	105,700.00	1.7	450000	6	A	
27	**Al**	1	**44490.000**	ug/l	444,900.00	1.6	450000	6	A	
31	**P**	1	**1759.000**	ug/l	17,590.00	1.5	450000	6	P	
39	**K**	1	**2310.000**	ug/l	23,100.00	0.9	450000	45	A	
44	**Ca**	1	**7289.000**	ug/l	72,890.00	1.8	450000	45	P	
47	**Ti**	1	**3421.000**	ug/l	34,210.00	1.9	4500	45	A	
51	**V**	1	**196.400**	ug/l	1,964.00	2.0	4500	45	A	
52	**Cr**	1	**65.830**	ug/l	658.30	2.2	4500	45	P	
55	**Mn**	1	**1826.000**	ug/l	18,260.00	0.6	4500	45	A	
57	**Fe**	1	**70290.000**	ug/l	702,900.00	1.2	450000	74	A	
59	**Co**	1	**42.010**	ug/l	420.10	1.8	4500	45	P	
60	**Ni**	1	**44.680**	ug/l	446.80	1.4	4500	45	P	
63	**Cu**	1	**92.380**	ug/l	923.80	1.7	4500	45	P	
66	**Zn**	1	**169.700**	ug/l	1,697.00	0.7	4500	74	P	
75	**As**	1	**11.020**	ug/l	110.20	2.0	4500	45	P	
78	**Se**	1	**1.802**	ug/l	18.02	3.1	4500	45	P	
88	**Sr**	1	**101.100**	ug/l	1,011.00	0.7	4500	45	P	
95	**Mo**	1	**0.894**	ug/l	8.94	0.4	4500	74	P	
109	**Ag**	1	**0.134**	ug/l	1.34	5.4	4500	103	P	
111	**Cd**	1	**2.620**	ug/l	26.20	4.4	4500	103	P	
118	**Sn**	1	**3.214**	ug/l	32.14	1.1	4500	103	P	
123	**Sb**	1	**3.765**	ug/l	37.65	0.6	4500	103	P	
135	**Ba**	1	**335.400**	ug/l	3,354.00	0.4	4500	103	P	
200	**Hg**	1	**0.087**	ug/l	0.87	10.3	45	209	P	
205	**Tl**	1	**0.325**	ug/l	3.25	2.8	4500	165	P	
208	**Pb**	1	**73.630**	ug/l	736.30	1.1	4500	209	A	
238	**U**	1	**1.534**	ug/l	15.34	0.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65876	0.86	81580	**80.8**	30	-	125	
45	Sc	1	1504238	1.49	1568000	**95.9**	30	-	125	
74	Ge	1	3672524	0.71	3965000	**92.6**	30	-	125	
103	Rh	1	5224191	0.64	5756000	**90.8**	30	-	125	
165	Ho	1	2683200	0.61	2702000	**99.3**	30	-	125	
175	Lu	1	2315652	0.56	2349000	**98.6**	30	-	125	
209	Bi	1	2731978	0.99	2910000	**93.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\108SMPL.D\108SMPL.D#
Date Acquired: Sep 15 2011 11:01 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**49.910**	ug/l	49.91	1.5	900	6	P	
23	Na	1	**4811.000**	ug/l	4,811.00	0.8	450000	6	A	
24	Mg	1	**4882.000**	ug/l	4,882.00	1.1	450000	6	A	
27	Al	1	**508.600**	ug/l	508.60	0.8	450000	6	P	
31	P	1	**4809.000**	ug/l	4,809.00	1.1	450000	6	P	
39	K	1	**4725.000**	ug/l	4,725.00	1.4	450000	45	A	
44	Ca	1	**4801.000**	ug/l	4,801.00	1.3	450000	45	P	
47	Ti	1	**49.600**	ug/l	49.60	2.0	4500	45	P	
51	V	1	**48.190**	ug/l	48.19	1.8	4500	45	P	
52	Cr	1	**48.650**	ug/l	48.65	1.7	4500	45	P	
55	Mn	1	**49.370**	ug/l	49.37	1.6	4500	45	P	
57	Fe	1	**4958.000**	ug/l	4,958.00	1.0	450000	74	A	
59	Co	1	**47.460**	ug/l	47.46	2.3	4500	45	P	
60	Ni	1	**49.410**	ug/l	49.41	2.1	4500	45	P	
63	Cu	1	**49.900**	ug/l	49.90	1.4	4500	45	P	
66	Zn	1	**47.760**	ug/l	47.76	1.0	4500	74	P	
75	As	1	**50.380**	ug/l	50.38	1.9	4500	45	P	
78	Se	1	**50.000**	ug/l	50.00	0.8	4500	45	P	
88	Sr	1	**50.280**	ug/l	50.28	0.7	4500	45	P	
95	Mo	1	**48.430**	ug/l	48.43	1.4	4500	74	P	
109	Ag	1	**46.770**	ug/l	46.77	3.0	4500	103	P	
111	Cd	1	**47.330**	ug/l	47.33	4.3	4500	103	P	
118	Sn	1	**47.510**	ug/l	47.51	3.2	4500	103	P	
123	Sb	1	**48.190**	ug/l	48.19	3.4	4500	103	P	
135	Ba	1	**47.990**	ug/l	47.99	3.6	4500	103	P	
200	Hg	1	**2.410**	ug/l	2.41	1.8	45	209	P	
205	Tl	1	**48.650**	ug/l	48.65	1.3	4500	165	A	
208	Pb	1	**47.650**	ug/l	47.65	2.2	4500	209	P	
238	U	1	**49.660**	ug/l	49.66	1.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	74574	0.50	81580	**91.4**	30	-	125	
45	Sc	1	1491038	1.63	1568000	**95.1**	30	-	125	
74	Ge	1	3791583	1.21	3965000	**95.6**	30	-	125	
103	Rh	1	5368083	2.10	5756000	**93.3**	30	-	125	
165	Ho	1	2651783	0.91	2702000	**98.1**	30	-	125	
175	Lu	1	2296924	1.13	2349000	**97.8**	30	-	125	
209	Bi	1	2812941	1.79	2910000	**96.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\109SMPL.D\109SMPL.D#
Date Acquired: Sep 15 2011 11:05 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.008**	ug/l	0.01	115.0	900	6	P	
23	**Na**	1	**7.105**	ug/l	7.11	33.8	450000	6	P	
24	**Mg**	1	**1.381**	ug/l	1.38	39.8	450000	6	P	
27	**Al**	1	**1.698**	ug/l	1.70	54.9	450000	6	P	
31	**P**	1	**1.088**	ug/l	1.09	61.0	450000	6	P	
39	**K**	1	**-4.623**	ug/l	-4.62	2.8	450000	45	P	
44	**Ca**	1	**1.640**	ug/l	1.64	21.5	450000	45	P	
47	**Ti**	1	**0.573**	ug/l	0.57	18.4	4500	45	P	
51	**V**	1	**-0.278**	ug/l	-0.28	8.8	4500	45	P	
52	**Cr**	1	**0.007**	ug/l	0.01	45.8	4500	45	P	
55	**Mn**	1	**0.196**	ug/l	0.20	28.9	4500	45	P	
57	**Fe**	1	**7.107**	ug/l	7.11	17.8	450000	74	P	
59	**Co**	1	**0.012**	ug/l	0.01	15.1	4500	45	P	
60	**Ni**	1	**0.016**	ug/l	0.02	14.0	4500	45	P	
63	**Cu**	1	**-0.097**	ug/l	-0.10	18.7	4500	45	P	
66	**Zn**	1	**0.035**	ug/l	0.04	32.3	4500	74	P	
75	**As**	1	**-0.022**	ug/l	-0.02	52.6	4500	45	P	
78	**Se**	1	**0.135**	ug/l	0.14	106.4	4500	45	P	
88	**Sr**	1	**0.012**	ug/l	0.01	105.0	4500	45	P	
95	**Mo**	1	**0.107**	ug/l	0.11	10.1	4500	74	P	
109	**Ag**	1	**0.009**	ug/l	0.01	57.5	4500	103	P	
111	**Cd**	1	**0.005**	ug/l	0.00	127.1	4500	103	P	
118	**Sn**	1	**0.117**	ug/l	0.12	16.0	4500	103	P	
123	**Sb**	1	**0.061**	ug/l	0.06	26.8	4500	103	P	
135	**Ba**	1	**0.027**	ug/l	0.03	103.9	4500	103	P	
200	**Hg**	1	**0.004**	ug/l	0.00	73.2	45	209	P	
205	**Tl**	1	**0.281**	ug/l	0.28	9.1	4500	165	P	
208	**Pb**	1	**0.021**	ug/l	0.02	11.5	4500	209	P	
238	**U**	1	**0.019**	ug/l	0.02	20.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	73780	2.80	81580	**90.4**	30	-	125	
45	Sc	1	1464026	1.32	1568000	**93.4**	30	-	125	
74	Ge	1	3829202	1.27	3965000	**96.6**	30	-	125	
103	Rh	1	5545543	0.36	5756000	**96.3**	30	-	125	
165	Ho	1	2687601	0.84	2702000	**99.5**	30	-	125	
175	Lu	1	2369853	1.62	2349000	**100.9**	30	-	125	
209	Bi	1	2888951	0.94	2910000	**99.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\110SMPL.D\110SMPL.D#
Date Acquired: Sep 15 2011 11:10 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-15-C Vial Number: 4201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.746**	ug/l	17.46	6.5	900	6	P	
23	**Na**	1	**594.600**	ug/l	5,946.00	4.5	450000	6	A	
24	**Mg**	1	**32720.000**	ug/l	327,200.00	3.2	450000	6	A	
27	**Al**	1	**47670.000**	ug/l	476,700.00	2.8	450000	6	A	
31	**P**	1	**2006.000**	ug/l	20,060.00	3.1	450000	6	P	
39	**K**	1	**1676.000**	ug/l	16,760.00	0.7	450000	45	A	
44	**Ca**	1	**15560.000**	ug/l	155,600.00	1.7	450000	45	A	
47	**Ti**	1	**4360.000**	ug/l	43,600.00	1.0	4500	45	A	
51	**V**	1	**274.900**	ug/l	2,749.00	1.8	4500	45	A	
52	**Cr**	1	**85.380**	ug/l	853.80	0.4	4500	45	P	
55	**Mn**	1	**2292.000**	ug/l	22,920.00	1.6	4500	45	A	
57	**Fe**	1	**117300.000**	ug/l	1,173,000.00	2.4	450000	74	A	
59	**Co**	1	**71.590**	ug/l	715.90	0.9	4500	45	P	
60	**Ni**	1	**122.100**	ug/l	1,221.00	0.8	4500	45	P	
63	**Cu**	1	**294.300**	ug/l	2,943.00	1.8	4500	45	A	
66	**Zn**	1	**128.000**	ug/l	1,280.00	1.5	4500	74	P	
75	**As**	1	**5.907**	ug/l	59.07	2.7	4500	45	P	
78	**Se**	1	**1.537**	ug/l	15.37	5.0	4500	45	P	
88	**Sr**	1	**197.900**	ug/l	1,979.00	1.1	4500	45	A	
95	**Mo**	1	**0.679**	ug/l	6.79	6.9	4500	74	P	
109	**Ag**	1	**0.109**	ug/l	1.09	9.5	4500	103	P	
111	**Cd**	1	**0.742**	ug/l	7.42	5.0	4500	103	P	
118	**Sn**	1	**2.634**	ug/l	26.34	1.4	4500	103	P	
123	**Sb**	1	**0.316**	ug/l	3.16	6.1	4500	103	P	
135	**Ba**	1	**196.100**	ug/l	1,961.00	1.8	4500	103	P	
200	**Hg**	1	**0.040**	ug/l	0.40	20.4	45	209	P	
205	**Tl**	1	**0.224**	ug/l	2.24	9.7	4500	165	P	
208	**Pb**	1	**20.550**	ug/l	205.50	1.7	4500	209	P	
238	**U**	1	**0.887**	ug/l	8.87	4.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62852	4.39	81580	**77.0**	30	-	125	
45	Sc	1	1464028	0.99	1568000	**93.4**	30	-	125	
74	Ge	1	3581798	2.20	3965000	**90.3**	30	-	125	
103	Rh	1	5044399	1.11	5756000	**87.6**	30	-	125	
165	Ho	1	2649461	0.39	2702000	**98.1**	30	-	125	
175	Lu	1	2254110	0.47	2349000	**96.0**	30	-	125	
209	Bi	1	2626910	1.16	2910000	**90.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\111SMPL.D\111SMPL.D#
Date Acquired: Sep 15 2011 11:14 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-16-C Vial Number: 4202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.904**	ug/l	19.04	5.8	900	6	P	
23	**Na**	1	**414.900**	ug/l	4,149.00	0.6	450000	6	P	
24	**Mg**	1	**11700.000**	ug/l	117,000.00	1.1	450000	6	A	
27	**Al**	1	**46670.000**	ug/l	466,700.00	0.6	450000	6	A	
31	**P**	1	**1900.000**	ug/l	19,000.00	1.0	450000	6	P	
39	**K**	1	**2390.000**	ug/l	23,900.00	2.4	450000	45	A	
44	**Ca**	1	**7798.000**	ug/l	77,980.00	2.1	450000	45	P	
47	**Ti**	1	**3355.000**	ug/l	33,550.00	2.2	4500	45	A	
51	**V**	1	**195.800**	ug/l	1,958.00	1.8	4500	45	A	
52	**Cr**	1	**64.120**	ug/l	641.20	2.7	4500	45	P	
55	**Mn**	1	**1876.000**	ug/l	18,760.00	2.2	4500	45	A	
57	**Fe**	1	**71660.000**	ug/l	716,600.00	1.6	450000	74	A	
59	**Co**	1	**41.960**	ug/l	419.60	2.3	4500	45	P	
60	**Ni**	1	**47.280**	ug/l	472.80	2.6	4500	45	P	
63	**Cu**	1	**97.400**	ug/l	974.00	2.9	4500	45	P	
66	**Zn**	1	**175.900**	ug/l	1,759.00	1.1	4500	74	P	
75	**As**	1	**11.710**	ug/l	117.10	2.9	4500	45	P	
78	**Se**	1	**1.927**	ug/l	19.27	10.5	4500	45	P	
88	**Sr**	1	**116.100**	ug/l	1,161.00	1.8	4500	45	A	
95	**Mo**	1	**0.968**	ug/l	9.68	2.4	4500	74	P	
109	**Ag**	1	**0.137**	ug/l	1.37	4.0	4500	103	P	
111	**Cd**	1	**2.816**	ug/l	28.16	3.5	4500	103	P	
118	**Sn**	1	**3.351**	ug/l	33.51	1.6	4500	103	P	
123	**Sb**	1	**3.995**	ug/l	39.95	0.9	4500	103	P	
135	**Ba**	1	**345.800**	ug/l	3,458.00	1.0	4500	103	P	
200	**Hg**	1	**0.106**	ug/l	1.06	6.9	45	209	P	
205	**Tl**	1	**0.317**	ug/l	3.17	5.9	4500	165	P	
208	**Pb**	1	**76.330**	ug/l	763.30	1.2	4500	209	A	
238	**U**	1	**1.552**	ug/l	15.52	1.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64610	1.18	81580	**79.2**	30	-	125	
45	Sc	1	1528875	1.68	1568000	**97.5**	30	-	125	
74	Ge	1	3783299	1.00	3965000	**95.4**	30	-	125	
103	Rh	1	5358773	1.18	5756000	**93.1**	30	-	125	
165	Ho	1	2733255	1.24	2702000	**101.2**	30	-	125	
175	Lu	1	2313141	0.73	2349000	**98.5**	30	-	125	
209	Bi	1	2751454	0.98	2910000	**94.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\112SMPL.D\112SMPL.D#
Date Acquired: Sep 15 2011 11:18 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.630**	ug/l	51.63	2.4	900	6	P	
23	**Na**	1	**4986.000**	ug/l	4,986.00	3.7	450000	6	A	
24	**Mg**	1	**5029.000**	ug/l	5,029.00	2.1	450000	6	A	
27	**Al**	1	**532.600**	ug/l	532.60	1.1	450000	6	P	
31	**P**	1	**5028.000**	ug/l	5,028.00	1.8	450000	6	P	
39	**K**	1	**4707.000**	ug/l	4,707.00	1.1	450000	45	A	
44	**Ca**	1	**4780.000**	ug/l	4,780.00	2.2	450000	45	P	
47	**Ti**	1	**49.890**	ug/l	49.89	1.6	4500	45	P	
51	**V**	1	**48.780**	ug/l	48.78	3.2	4500	45	P	
52	**Cr**	1	**48.860**	ug/l	48.86	3.2	4500	45	P	
55	**Mn**	1	**50.230**	ug/l	50.23	3.2	4500	45	P	
57	**Fe**	1	**4926.000**	ug/l	4,926.00	1.2	450000	74	A	
59	**Co**	1	**48.410**	ug/l	48.41	3.2	4500	45	P	
60	**Ni**	1	**50.170**	ug/l	50.17	2.5	4500	45	P	
63	**Cu**	1	**50.820**	ug/l	50.82	3.3	4500	45	P	
66	**Zn**	1	**48.270**	ug/l	48.27	1.0	4500	74	P	
75	**As**	1	**50.850**	ug/l	50.85	2.9	4500	45	P	
78	**Se**	1	**50.350**	ug/l	50.35	2.1	4500	45	P	
88	**Sr**	1	**51.170**	ug/l	51.17	1.9	4500	45	P	
95	**Mo**	1	**48.710**	ug/l	48.71	0.6	4500	74	P	
109	**Ag**	1	**46.700**	ug/l	46.70	0.3	4500	103	P	
111	**Cd**	1	**48.150**	ug/l	48.15	1.9	4500	103	P	
118	**Sn**	1	**47.170**	ug/l	47.17	0.5	4500	103	P	
123	**Sb**	1	**48.050**	ug/l	48.05	0.3	4500	103	P	
135	**Ba**	1	**47.510**	ug/l	47.51	1.5	4500	103	P	
200	**Hg**	1	**2.408**	ug/l	2.41	2.7	45	209	P	
205	**Tl**	1	**47.130**	ug/l	47.13	3.3	4500	165	A	
208	**Pb**	1	**47.150**	ug/l	47.15	3.7	4500	209	P	
238	**U**	1	**49.200**	ug/l	49.20	2.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71325	0.50	81580	**87.4**	30	-	125	
45	Sc	1	1499763	3.48	1568000	**95.6**	30	-	125	
74	Ge	1	3835988	0.64	3965000	**96.7**	30	-	125	
103	Rh	1	5481609	0.37	5756000	**95.2**	30	-	125	
165	Ho	1	2735317	2.47	2702000	**101.2**	30	-	125	
175	Lu	1	2337962	1.65	2349000	**99.5**	30	-	125	
209	Bi	1	2862256	4.17	2910000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\113SMPL.D\113SMPL.D#
Date Acquired: Sep 15 2011 11:23 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.014**	ug/l	0.01	35.4	900	6	P	
23	Na	1	**15.630**	ug/l	15.63	9.5	450000	6	P	
24	Mg	1	**2.769**	ug/l	2.77	7.3	450000	6	P	
27	Al	1	**3.010**	ug/l	3.01	6.3	450000	6	P	
31	P	1	**2.341**	ug/l	2.34	82.1	450000	6	P	
39	K	1	**-8.338**	ug/l	-8.34	22.2	450000	45	P	
44	Ca	1	**2.155**	ug/l	2.16	24.0	450000	45	P	
47	Ti	1	**0.613**	ug/l	0.61	4.6	4500	45	P	
51	V	1	**-0.292**	ug/l	-0.29	4.4	4500	45	P	
52	Cr	1	**-0.001**	ug/l	0.00	1917.2	4500	45	P	
55	Mn	1	**0.219**	ug/l	0.22	8.8	4500	45	P	
57	Fe	1	**10.270**	ug/l	10.27	5.1	450000	74	P	
59	Co	1	**0.017**	ug/l	0.02	31.0	4500	45	P	
60	Ni	1	**0.020**	ug/l	0.02	31.2	4500	45	P	
63	Cu	1	**-0.100**	ug/l	-0.10	20.4	4500	45	P	
66	Zn	1	**0.016**	ug/l	0.02	72.7	4500	74	P	
75	As	1	**-0.003**	ug/l	0.00	811.9	4500	45	P	
78	Se	1	**0.037**	ug/l	0.04	43.3	4500	45	P	
88	Sr	1	**0.035**	ug/l	0.03	26.4	4500	45	P	
95	Mo	1	**0.096**	ug/l	0.10	7.8	4500	74	P	
109	Ag	1	**0.015**	ug/l	0.01	33.6	4500	103	P	
111	Cd	1	**0.004**	ug/l	0.00	178.0	4500	103	P	
118	Sn	1	**0.155**	ug/l	0.15	18.8	4500	103	P	
123	Sb	1	**0.055**	ug/l	0.05	21.7	4500	103	P	
135	Ba	1	**0.038**	ug/l	0.04	48.4	4500	103	P	
200	Hg	1	**0.017**	ug/l	0.02	11.4	45	209	P	
205	Tl	1	**0.289**	ug/l	0.29	10.1	4500	165	P	
208	Pb	1	**0.020**	ug/l	0.02	25.1	4500	209	P	
238	U	1	**0.021**	ug/l	0.02	1.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71058	1.23	81580	**87.1**	30	-	125	
45	Sc	1	1509648	2.35	1568000	**96.3**	30	-	125	
74	Ge	1	3923680	1.63	3965000	**99.0**	30	-	125	
103	Rh	1	5714197	0.70	5756000	**99.3**	30	-	125	
165	Ho	1	2758758	1.66	2702000	**102.1**	30	-	125	
175	Lu	1	2395435	1.58	2349000	**102.0**	30	-	125	
209	Bi	1	2937491	2.48	2910000	**100.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\114SMPL.D\114SMPL.D#
Date Acquired: Sep 15 2011 11:27 pm Acq. Method: 00He_ALL.M
Sample Name: ICSA Vial Number: 1101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.01	98.4	900	6	P	
23	**Na**	1	**50050.000**	ug/l	50,050.00	1.2	450000	6	A	
24	**Mg**	1	**19790.000**	ug/l	19,790.00	1.6	450000	6	A	
27	**Al**	1	**19830.000**	ug/l	19,830.00	0.7	450000	6	A	
31	**P**	1	**21030.000**	ug/l	21,030.00	1.5	450000	6	A	
39	**K**	1	**19210.000**	ug/l	19,210.00	0.5	450000	45	A	
44	**Ca**	1	**57700.000**	ug/l	57,700.00	1.8	450000	45	A	
47	**Ti**	1	**395.700**	ug/l	395.70	0.8	4500	45	P	
51	**V**	1	**-0.487**	ug/l	-0.49	1.1	4500	45	P	
52	**Cr**	1	**1.193**	ug/l	1.19	3.5	4500	45	P	
55	**Mn**	1	**0.679**	ug/l	0.68	2.0	4500	45	P	
57	**Fe**	1	**49410.000**	ug/l	49,410.00	1.9	450000	74	A	
59	**Co**	1	**0.027**	ug/l	0.03	12.3	4500	45	P	
60	**Ni**	1	**0.399**	ug/l	0.40	5.6	4500	45	P	
63	**Cu**	1	**0.048**	ug/l	0.05	66.9	4500	45	P	
66	**Zn**	1	**1.190**	ug/l	1.19	2.6	4500	74	P	
75	**As**	1	**-0.022**	ug/l	-0.02	61.4	4500	45	P	
78	**Se**	1	**0.087**	ug/l	0.09	5.3	4500	45	P	
88	**Sr**	1	**-0.290**	ug/l	-0.29	54.0	4500	45	P	
95	**Mo**	1	**411.900**	ug/l	411.90	1.8	4500	74	A	
109	**Ag**	1	**0.022**	ug/l	0.02	5.4	4500	103	P	
111	**Cd**	1	**0.063**	ug/l	0.06	25.5	4500	103	P	
118	**Sn**	1	**0.106**	ug/l	0.11	25.1	4500	103	P	
123	**Sb**	1	**0.155**	ug/l	0.15	3.6	4500	103	P	
135	**Ba**	1	**0.110**	ug/l	0.11	19.9	4500	103	P	
200	**Hg**	1	**0.022**	ug/l	0.02	14.0	45	209	P	
205	**Tl**	1	**0.107**	ug/l	0.11	8.5	4500	165	P	
208	**Pb**	1	**0.065**	ug/l	0.07	10.9	4500	209	P	
238	**U**	1	**0.012**	ug/l	0.01	3.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	82558	0.68	81580	**101.2**	30	-	125	
45	Sc	1	1647768	1.05	1568000	**105.1**	30	-	125	
74	Ge	1	3955664	1.15	3965000	**99.8**	30	-	125	
103	Rh	1	5187367	2.18	5756000	**90.1**	30	-	125	
165	Ho	1	2627925	0.96	2702000	**97.3**	30	-	125	
175	Lu	1	2291205	1.26	2349000	**97.5**	30	-	125	
209	Bi	1	2590185	2.76	2910000	**89.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\115SMPL.D\115SMPL.D#
Date Acquired: Sep 15 2011 11:31 pm Acq. Method: 00He_ALL.M
Sample Name: ICSAB Vial Number: 1102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.01	60.3	900	6	P	
23	**Na**	1	**51390.000**	ug/l	51,390.00	1.4	450000	6	A	
24	**Mg**	1	**20110.000**	ug/l	20,110.00	0.9	450000	6	A	
27	**Al**	1	**20240.000**	ug/l	20,240.00	0.1	450000	6	A	
31	**P**	1	**21430.000**	ug/l	21,430.00	1.2	450000	6	A	
39	**K**	1	**19030.000**	ug/l	19,030.00	1.0	450000	45	A	
44	**Ca**	1	**58970.000**	ug/l	58,970.00	1.0	450000	45	A	
47	**Ti**	1	**393.900**	ug/l	393.90	1.9	4500	45	P	
51	**V**	1	**40.220**	ug/l	40.22	2.1	4500	45	P	
52	**Cr**	1	**40.750**	ug/l	40.75	1.4	4500	45	P	
55	**Mn**	1	**39.900**	ug/l	39.90	2.1	4500	45	P	
57	**Fe**	1	**48890.000**	ug/l	48,890.00	1.5	450000	74	A	
59	**Co**	1	**38.740**	ug/l	38.74	3.6	4500	45	P	
60	**Ni**	1	**40.360**	ug/l	40.36	2.8	4500	45	P	
63	**Cu**	1	**39.530**	ug/l	39.53	2.2	4500	45	P	
66	**Zn**	1	**21.380**	ug/l	21.38	0.9	4500	74	P	
75	**As**	1	**21.000**	ug/l	21.00	3.0	4500	45	P	
78	**Se**	1	**20.390**	ug/l	20.39	1.6	4500	45	P	
88	**Sr**	1	**-0.330**	ug/l	-0.33	23.5	4500	45	P	
95	**Mo**	1	**417.300**	ug/l	417.30	0.5	4500	74	A	
109	**Ag**	1	**9.976**	ug/l	9.98	1.0	4500	103	P	
111	**Cd**	1	**21.060**	ug/l	21.06	0.9	4500	103	P	
118	**Sn**	1	**0.080**	ug/l	0.08	3.1	4500	103	P	
123	**Sb**	1	**0.138**	ug/l	0.14	9.9	4500	103	P	
135	**Ba**	1	**0.161**	ug/l	0.16	12.4	4500	103	P	
200	**Hg**	1	**0.018**	ug/l	0.02	30.4	45	209	P	
205	**Tl**	1	**0.061**	ug/l	0.06	19.0	4500	165	P	
208	**Pb**	1	**0.250**	ug/l	0.25	7.4	4500	209	P	
238	**U**	1	**0.006**	ug/l	0.01	11.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79500	1.23	81580	**97.4**	30	-	125	
45	Sc	1	1606166	2.09	1568000	**102.4**	30	-	125	
74	Ge	1	3925657	0.63	3965000	**99.0**	30	-	125	
103	Rh	1	5111755	0.99	5756000	**88.8**	30	-	125	
165	Ho	1	2640644	1.62	2702000	**97.7**	30	-	125	
175	Lu	1	2291546	1.07	2349000	**97.6**	30	-	125	
209	Bi	1	2606274	4.29	2910000	**89.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\116SMPL.D\116SMPL.D#
Date Acquired: Sep 15 2011 11:36 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.010**	ug/l	51.01	2.5	900	6	P	
23	**Na**	1	**5159.000**	ug/l	5,159.00	2.4	450000	6	A	
24	**Mg**	1	**5214.000**	ug/l	5,214.00	2.0	450000	6	A	
27	**Al**	1	**542.300**	ug/l	542.30	2.1	450000	6	P	
31	**P**	1	**5178.000**	ug/l	5,178.00	0.8	450000	6	P	
39	**K**	1	**4646.000**	ug/l	4,646.00	1.4	450000	45	A	
44	**Ca**	1	**4744.000**	ug/l	4,744.00	1.3	450000	45	P	
47	**Ti**	1	**48.290**	ug/l	48.29	1.8	4500	45	P	
51	**V**	1	**48.440**	ug/l	48.44	1.3	4500	45	P	
52	**Cr**	1	**48.740**	ug/l	48.74	2.3	4500	45	P	
55	**Mn**	1	**48.980**	ug/l	48.98	2.3	4500	45	P	
57	**Fe**	1	**4828.000**	ug/l	4,828.00	2.1	450000	74	A	
59	**Co**	1	**47.760**	ug/l	47.76	2.8	4500	45	P	
60	**Ni**	1	**49.850**	ug/l	49.85	2.1	4500	45	P	
63	**Cu**	1	**50.950**	ug/l	50.95	3.3	4500	45	P	
66	**Zn**	1	**48.060**	ug/l	48.06	1.5	4500	74	P	
75	**As**	1	**51.260**	ug/l	51.26	2.0	4500	45	P	
78	**Se**	1	**50.530**	ug/l	50.53	1.8	4500	45	P	
88	**Sr**	1	**50.950**	ug/l	50.95	1.8	4500	45	P	
95	**Mo**	1	**49.130**	ug/l	49.13	0.8	4500	74	P	
109	**Ag**	1	**46.030**	ug/l	46.03	0.4	4500	103	P	
111	**Cd**	1	**46.910**	ug/l	46.91	1.1	4500	103	P	
118	**Sn**	1	**47.090**	ug/l	47.09	0.9	4500	103	P	
123	**Sb**	1	**47.360**	ug/l	47.36	0.6	4500	103	P	
135	**Ba**	1	**47.370**	ug/l	47.37	1.3	4500	103	P	
200	**Hg**	1	**2.367**	ug/l	2.37	3.2	45	209	P	
205	**Tl**	1	**48.020**	ug/l	48.02	2.3	4500	165	A	
208	**Pb**	1	**46.940**	ug/l	46.94	1.9	4500	209	P	
238	**U**	1	**48.230**	ug/l	48.23	1.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68534	1.14	81580	**84.0**	30	-	125	
45	Sc	1	1535098	2.39	1568000	**97.9**	30	-	125	
74	Ge	1	3950739	0.32	3965000	**99.6**	30	-	125	
103	Rh	1	5653200	0.18	5756000	**98.2**	30	-	125	
165	Ho	1	2741552	1.60	2702000	**101.5**	30	-	125	
175	Lu	1	2382417	1.41	2349000	**101.4**	30	-	125	
209	Bi	1	2891428	1.95	2910000	**99.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\117SMPL.D\117SMPL.D#
Date Acquired: Sep 15 2011 11:40 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.014**	ug/l	0.01	131.5	900	6	P	
23	Na	1	**25.780**	ug/l	25.78	7.7	450000	6	P	
24	Mg	1	**3.317**	ug/l	3.32	4.1	450000	6	P	
27	Al	1	**1.851**	ug/l	1.85	14.5	450000	6	P	
31	P	1	**3.773**	ug/l	3.77	103.7	450000	6	P	
39	K	1	**-10.790**	ug/l	-10.79	27.7	450000	45	P	
44	Ca	1	**5.683**	ug/l	5.68	18.6	450000	45	P	
47	Ti	1	**0.183**	ug/l	0.18	15.1	4500	45	P	
51	V	1	**-0.298**	ug/l	-0.30	4.8	4500	45	P	
52	Cr	1	**0.006**	ug/l	0.01	318.8	4500	45	P	
55	Mn	1	**0.041**	ug/l	0.04	11.7	4500	45	P	
57	Fe	1	**7.540**	ug/l	7.54	12.6	450000	74	P	
59	Co	1	**0.023**	ug/l	0.02	30.7	4500	45	P	
60	Ni	1	**0.019**	ug/l	0.02	64.6	4500	45	P	
63	Cu	1	**-0.052**	ug/l	-0.05	28.1	4500	45	P	
66	Zn	1	**0.047**	ug/l	0.05	35.1	4500	74	P	
75	As	1	**-0.022**	ug/l	-0.02	58.6	4500	45	P	
78	Se	1	**0.136**	ug/l	0.14	37.6	4500	45	P	
88	Sr	1	**0.020**	ug/l	0.02	23.8	4500	45	P	
95	Mo	1	**0.290**	ug/l	0.29	18.2	4500	74	P	
109	Ag	1	**0.019**	ug/l	0.02	29.8	4500	103	P	
111	Cd	1	**0.009**	ug/l	0.01	145.7	4500	103	P	
118	Sn	1	**0.158**	ug/l	0.16	13.0	4500	103	P	
123	Sb	1	**0.069**	ug/l	0.07	9.3	4500	103	P	
135	Ba	1	**0.024**	ug/l	0.02	23.4	4500	103	P	
200	Hg	1	**0.009**	ug/l	0.01	71.6	45	209	P	
205	Tl	1	**0.286**	ug/l	0.29	10.9	4500	165	P	
208	Pb	1	**0.010**	ug/l	0.01	14.1	4500	209	P	
238	U	1	**0.023**	ug/l	0.02	8.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68492	1.65	81580	**84.0**	30	-	125	
45	Sc	1	1503630	3.63	1568000	**95.9**	30	-	125	
74	Ge	1	3923749	1.95	3965000	**99.0**	30	-	125	
103	Rh	1	5625305	1.42	5756000	**97.7**	30	-	125	
165	Ho	1	2737612	0.63	2702000	**101.3**	30	-	125	
175	Lu	1	2385362	1.67	2349000	**101.5**	30	-	125	
209	Bi	1	2973086	1.90	2910000	**102.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\118SMPL.D\118SMPL.D#
Date Acquired: Sep 15 2011 11:44 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-95414/22-A Vial Number: 4301
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.04	108.6	900	6	P	
23	**Na**	1	**214.400**	ug/l	1,072.00	1.7	450000	6	P	
24	**Mg**	1	**11.070**	ug/l	55.35	4.1	450000	6	P	
27	**Al**	1	**5.484**	ug/l	27.42	2.1	450000	6	P	
31	**P**	1	**0.422**	ug/l	2.11	329.9	450000	6	P	
39	**K**	1	**-9.996**	ug/l	-49.98	38.1	450000	45	P	
44	**Ca**	1	**24.330**	ug/l	121.65	5.9	450000	45	P	
47	**Ti**	1	**0.158**	ug/l	0.79	21.3	4500	45	P	
51	**V**	1	**-0.272**	ug/l	-1.36	1.5	4500	45	P	
52	**Cr**	1	**0.010**	ug/l	0.05	62.2	4500	45	P	
55	**Mn**	1	**0.048**	ug/l	0.24	19.7	4500	45	P	
57	**Fe**	1	**2.681**	ug/l	13.41	13.7	450000	74	P	
59	**Co**	1	**0.002**	ug/l	0.01	85.4	4500	45	P	
60	**Ni**	1	**0.051**	ug/l	0.25	49.6	4500	45	P	
63	**Cu**	1	**0.004**	ug/l	0.02	274.8	4500	45	P	
66	**Zn**	1	**0.238**	ug/l	1.19	8.5	4500	74	P	
75	**As**	1	**-0.018**	ug/l	-0.09	45.6	4500	45	P	
78	**Se**	1	**0.066**	ug/l	0.33	30.5	4500	45	P	
88	**Sr**	1	**0.029**	ug/l	0.15	32.3	4500	45	P	
95	**Mo**	1	**0.117**	ug/l	0.59	18.5	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.01	87.1	4500	103	P	
111	**Cd**	1	**-0.001**	ug/l	0.00	1058.6	4500	103	P	
118	**Sn**	1	**0.091**	ug/l	0.46	11.5	4500	103	P	
123	**Sb**	1	**0.026**	ug/l	0.13	55.0	4500	103	P	
135	**Ba**	1	**0.032**	ug/l	0.16	56.7	4500	103	P	
200	**Hg**	1	**0.004**	ug/l	0.02	70.5	45	209	P	
205	**Tl**	1	**0.093**	ug/l	0.47	16.1	4500	165	P	
208	**Pb**	1	**0.014**	ug/l	0.07	9.9	4500	209	P	
238	**U**	1	**0.004**	ug/l	0.02	32.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65862	0.70	81580	**80.7**	30	-	125	
45	Sc	1	1493752	3.05	1568000	**95.3**	30	-	125	
74	Ge	1	3909610	1.57	3965000	**98.6**	30	-	125	
103	Rh	1	5702839	1.54	5756000	**99.1**	30	-	125	
165	Ho	1	2790993	0.54	2702000	**103.3**	30	-	125	
175	Lu	1	2423404	2.91	2349000	**103.2**	30	-	125	
209	Bi	1	2997742	2.32	2910000	**103.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\119SMPL.D\119SMPL.D#
Date Acquired: Sep 15 2011 11:49 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28621-A-1-A Vial Number: 4302
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.177**	ug/l	0.88	21.2	900	6	P	
23	**Na**	1	**1060000.000**	ug/l	5,300,000.00	1.3	450000	6	A	Fail
24	**Mg**	1	**27960.000**	ug/l	139,800.00	0.5	450000	6	A	
27	**Al**	1	**104.400**	ug/l	522.00	1.2	450000	6	P	
31	**P**	1	**1054.000**	ug/l	5,270.00	0.5	450000	6	P	
39	**K**	1	**174800.000**	ug/l	874,000.00	1.2	450000	45	A	
44	**Ca**	1	**5360.000**	ug/l	26,800.00	2.0	450000	45	P	
47	**Ti**	1	**209.700**	ug/l	1,048.50	2.8	4500	45	P	
51	**V**	1	**72.730**	ug/l	363.65	3.3	4500	45	P	
52	**Cr**	1	**133.700**	ug/l	668.50	2.3	4500	45	A	
55	**Mn**	1	**82.930**	ug/l	414.65	3.3	4500	45	P	
57	**Fe**	1	**7912.000**	ug/l	39,560.00	2.0	450000	74	A	
59	**Co**	1	**9.223**	ug/l	46.12	4.1	4500	45	P	
60	**Ni**	1	**128.200**	ug/l	641.00	4.0	4500	45	P	
63	**Cu**	1	**6.466**	ug/l	32.33	4.2	4500	45	P	
66	**Zn**	1	**23.730**	ug/l	118.65	1.0	4500	74	P	
75	**As**	1	**28.920**	ug/l	144.60	4.9	4500	45	P	
78	**Se**	1	**0.679**	ug/l	3.40	6.0	4500	45	P	
88	**Sr**	1	**228.000**	ug/l	1,140.00	4.2	4500	45	A	
95	**Mo**	1	**16.700**	ug/l	83.50	0.6	4500	74	P	
109	**Ag**	1	**0.025**	ug/l	0.12	5.0	4500	103	P	
111	**Cd**	1	**0.482**	ug/l	2.41	20.5	4500	103	P	
118	**Sn**	1	**56.190**	ug/l	280.95	1.8	4500	103	P	
123	**Sb**	1	**3.816**	ug/l	19.08	0.9	4500	103	P	
135	**Ba**	1	**27.880**	ug/l	139.40	2.0	4500	103	P	
200	**Hg**	1	**0.363**	ug/l	1.82	3.2	45	209	P	
205	**Tl**	1	**0.058**	ug/l	0.29	19.4	4500	165	P	
208	**Pb**	1	**4.168**	ug/l	20.84	1.7	4500	209	P	
238	**U**	1	**0.200**	ug/l	1.00	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67731	3.35	81580	**83.0**	30	-	125	
45	Sc	1	1399447	4.10	1568000	**89.3**	30	-	125	
74	Ge	1	3341405	0.62	3965000	**84.3**	30	-	125	
103	Rh	1	4406695	0.54	5756000	**76.6**	30	-	125	
165	Ho	1	2277933	1.26	2702000	**84.3**	30	-	125	
175	Lu	1	1975690	0.40	2349000	**84.1**	30	-	125	
209	Bi	1	2161719	0.44	2910000	**74.3**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\120SMPL.D\120SMPL.D#
Date Acquired: Sep 15 2011 11:53 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-3-A SD Vial Number: 4303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **25.00** Final Dil Factor: **25.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.009**	ug/l	-0.22	25.6	900	6	P	
23	**Na**	1	**498.400**	ug/l	12,460.00	12.1	450000	6	A	
24	**Mg**	1	**11.280**	ug/l	282.00	15.3	450000	6	P	
27	**Al**	1	**23.500**	ug/l	587.50	8.5	450000	6	P	
31	**P**	1	**4.372**	ug/l	109.30	30.7	450000	6	P	
39	**K**	1	**138.400**	ug/l	3,460.00	19.7	450000	45	P	
44	**Ca**	1	**20.500**	ug/l	512.50	7.7	450000	45	P	
47	**Ti**	1	**0.485**	ug/l	12.12	18.2	4500	45	P	
51	**V**	1	**-0.012**	ug/l	-0.31	447.9	4500	45	P	
52	**Cr**	1	**0.105**	ug/l	2.61	48.5	4500	45	P	
55	**Mn**	1	**0.123**	ug/l	3.06	13.9	4500	45	P	
57	**Fe**	1	**7.543**	ug/l	188.58	4.3	450000	74	P	
59	**Co**	1	**0.019**	ug/l	0.46	10.6	4500	45	P	
60	**Ni**	1	**0.094**	ug/l	2.36	34.7	4500	45	P	
63	**Cu**	1	**0.019**	ug/l	0.47	186.0	4500	45	P	
66	**Zn**	1	**1.085**	ug/l	27.13	8.5	4500	74	P	
75	**As**	1	**19.150**	ug/l	478.75	9.2	4500	45	P	
78	**Se**	1	**0.032**	ug/l	0.80	92.5	4500	45	P	
88	**Sr**	1	**0.123**	ug/l	3.06	20.5	4500	45	P	
95	**Mo**	1	**0.075**	ug/l	1.87	7.4	4500	74	P	
109	**Ag**	1	**0.003**	ug/l	0.08	16.5	4500	103	P	
111	**Cd**	1	**-0.005**	ug/l	-0.12	71.6	4500	103	P	
118	**Sn**	1	**0.087**	ug/l	2.18	33.6	4500	103	P	
123	**Sb**	1	**0.024**	ug/l	0.60	30.4	4500	103	P	
135	**Ba**	1	**0.049**	ug/l	1.22	46.2	4500	103	P	
200	**Hg**	1	**0.003**	ug/l	0.07	119.7	45	209	P	
205	**Tl**	1	**0.034**	ug/l	0.85	38.8	4500	165	P	
208	**Pb**	1	**0.022**	ug/l	0.55	37.8	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.03	45.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	79076	4.77	81580	**96.9**	30	-	125	
45	Sc	1	1618372	8.20	1568000	**103.2**	30	-	125	
74	Ge	1	4096729	1.63	3965000	**103.3**	30	-	125	
103	Rh	1	5897657	4.93	5756000	**102.5**	30	-	125	
165	Ho	1	2787664	5.34	2702000	**103.2**	30	-	125	
175	Lu	1	2422851	4.14	2349000	**103.1**	30	-	125	
209	Bi	1	2974827	4.03	2910000	**102.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\121SMPL.D\121SMPL.D#
Date Acquired: Sep 15 2011 11:58 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-3-A Vial Number: 4304
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.000**	ug/l	0.00	6209.9	900	6	P	
23	**Na**	1	**624.600**	ug/l	3,123.00	3.8	450000	6	A	
24	**Mg**	1	**6.316**	ug/l	31.58	7.6	450000	6	P	
27	**Al**	1	**122.800**	ug/l	614.00	0.7	450000	6	P	
31	**P**	1	**30.180**	ug/l	150.90	7.3	450000	6	P	
39	**K**	1	**407.500**	ug/l	2,037.50	4.0	450000	45	P	
44	**Ca**	1	**95.010**	ug/l	475.05	1.8	450000	45	P	
47	**Ti**	1	**1.295**	ug/l	6.48	10.8	4500	45	P	
51	**V**	1	**0.261**	ug/l	1.30	11.4	4500	45	P	
52	**Cr**	1	**0.325**	ug/l	1.62	7.7	4500	45	P	
55	**Mn**	1	**0.351**	ug/l	1.76	8.9	4500	45	P	
57	**Fe**	1	**16.390**	ug/l	81.95	7.1	450000	74	P	
59	**Co**	1	**0.014**	ug/l	0.07	20.5	4500	45	P	
60	**Ni**	1	**0.152**	ug/l	0.76	27.9	4500	45	P	
63	**Cu**	1	**0.413**	ug/l	2.07	7.7	4500	45	P	
66	**Zn**	1	**5.457**	ug/l	27.29	2.1	4500	74	P	
75	**As**	1	**98.910**	ug/l	494.55	2.9	4500	45	P	
78	**Se**	1	**0.036**	ug/l	0.18	79.3	4500	45	P	
88	**Sr**	1	**0.168**	ug/l	0.84	11.9	4500	45	P	
95	**Mo**	1	**0.108**	ug/l	0.54	5.5	4500	74	P	
109	**Ag**	1	**0.008**	ug/l	0.04	24.5	4500	103	P	
111	**Cd**	1	**0.002**	ug/l	0.01	652.5	4500	103	P	
118	**Sn**	1	**0.071**	ug/l	0.36	26.4	4500	103	P	
123	**Sb**	1	**0.044**	ug/l	0.22	6.5	4500	103	P	
135	**Ba**	1	**0.076**	ug/l	0.38	15.8	4500	103	P	
200	**Hg**	1	**0.008**	ug/l	0.04	55.7	45	209	P	
205	**Tl**	1	**0.024**	ug/l	0.12	35.0	4500	165	P	
208	**Pb**	1	**0.104**	ug/l	0.52	11.9	4500	209	P	
238	**U**	1	**0.004**	ug/l	0.02	14.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72689	2.85	81580	**89.1**	30	-	125	
45	Sc	1	1576158	2.58	1568000	**100.5**	30	-	125	
74	Ge	1	4118105	1.94	3965000	**103.9**	30	-	125	
103	Rh	1	6003564	1.54	5756000	**104.3**	30	-	125	
165	Ho	1	2879898	0.66	2702000	**106.6**	30	-	125	
175	Lu	1	2490516	0.68	2349000	**106.0**	30	-	125	
209	Bi	1	3035509	1.02	2910000	**104.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\122SMPL.D\122SMPL.D#
Date Acquired: Sep 16 2011 12:02 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-3-B DU Vial Number: 4305
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.011**	ug/l	-0.06	25.3	900	6	P	
23	**Na**	1	**650.300**	ug/l	3,251.50	3.4	450000	6	A	
24	**Mg**	1	**5.998**	ug/l	29.99	4.2	450000	6	P	
27	**Al**	1	**130.600**	ug/l	653.00	0.4	450000	6	P	
31	**P**	1	**35.250**	ug/l	176.25	1.3	450000	6	P	
39	**K**	1	**427.300**	ug/l	2,136.50	1.1	450000	45	P	
44	**Ca**	1	**98.320**	ug/l	491.60	0.7	450000	45	P	
47	**Ti**	1	**1.367**	ug/l	6.84	6.2	4500	45	P	
51	**V**	1	**0.281**	ug/l	1.41	1.5	4500	45	P	
52	**Cr**	1	**0.335**	ug/l	1.68	3.8	4500	45	P	
55	**Mn**	1	**0.353**	ug/l	1.76	4.2	4500	45	P	
57	**Fe**	1	**15.290**	ug/l	76.45	1.1	450000	74	P	
59	**Co**	1	**0.013**	ug/l	0.06	18.9	4500	45	P	
60	**Ni**	1	**0.179**	ug/l	0.90	14.2	4500	45	P	
63	**Cu**	1	**0.457**	ug/l	2.28	12.7	4500	45	P	
66	**Zn**	1	**5.797**	ug/l	28.99	5.4	4500	74	P	
75	**As**	1	**107.300**	ug/l	536.50	0.9	4500	45	P	
78	**Se**	1	**0.126**	ug/l	0.63	52.0	4500	45	P	
88	**Sr**	1	**0.184**	ug/l	0.92	5.6	4500	45	P	
95	**Mo**	1	**0.104**	ug/l	0.52	16.8	4500	74	P	
109	**Ag**	1	**0.010**	ug/l	0.05	23.4	4500	103	P	
111	**Cd**	1	**0.006**	ug/l	0.03	134.8	4500	103	P	
118	**Sn**	1	**0.059**	ug/l	0.30	26.7	4500	103	P	
123	**Sb**	1	**0.049**	ug/l	0.25	13.6	4500	103	P	
135	**Ba**	1	**0.076**	ug/l	0.38	30.0	4500	103	P	
200	**Hg**	1	**0.003**	ug/l	0.02	156.5	45	209	P	
205	**Tl**	1	**0.017**	ug/l	0.08	53.3	4500	165	P	
208	**Pb**	1	**0.112**	ug/l	0.56	18.3	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.01	21.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65818	0.84	81580	**80.7**	30	-	125	
45	Sc	1	1505184	0.61	1568000	**96.0**	30	-	125	
74	Ge	1	4063791	0.76	3965000	**102.5**	30	-	125	
103	Rh	1	5923441	0.80	5756000	**102.9**	30	-	125	
165	Ho	1	2883003	0.56	2702000	**106.7**	30	-	125	
175	Lu	1	2496952	1.04	2349000	**106.3**	30	-	125	
209	Bi	1	3084343	2.11	2910000	**106.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\123SMPL.D\123SMPL.D#
Date Acquired: Sep 16 2011 12:06 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-3-C MS Vial Number: 4306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.189**	ug/l	109.45	4.6	900	6	P	
23	**Na**	1	**580.800**	ug/l	29,040.00	2.6	450000	6	A	
24	**Mg**	1	**472.300**	ug/l	23,615.00	0.5	450000	6	P	
27	**Al**	1	**108.200**	ug/l	5,410.00	1.8	450000	6	P	
31	**P**	1	**460.100**	ug/l	23,005.00	0.2	450000	6	P	
39	**K**	1	**436.200**	ug/l	21,810.00	2.5	450000	45	P	
44	**Ca**	1	**424.500**	ug/l	21,225.00	1.7	450000	45	P	
47	**Ti**	1	**101.800**	ug/l	5,090.00	3.3	4500	45	P	
51	**V**	1	**21.110**	ug/l	1,055.50	2.7	4500	45	P	
52	**Cr**	1	**8.644**	ug/l	432.20	2.9	4500	45	P	
55	**Mn**	1	**22.020**	ug/l	1,101.00	2.3	4500	45	P	
57	**Fe**	1	**440.000**	ug/l	22,000.00	1.0	450000	74	P	
59	**Co**	1	**21.710**	ug/l	1,085.50	2.5	4500	45	P	
60	**Ni**	1	**22.610**	ug/l	1,130.50	2.9	4500	45	P	
63	**Cu**	1	**11.800**	ug/l	590.00	2.9	4500	45	P	
66	**Zn**	1	**21.340**	ug/l	1,067.00	1.0	4500	74	P	
75	**As**	1	**104.000**	ug/l	5,200.00	2.2	4500	45	P	
78	**Se**	1	**92.260**	ug/l	4,613.00	2.0	4500	45	P	
88	**Sr**	1	**0.002**	ug/l	0.09	518.0	4500	45	P	
95	**Mo**	1	**106.200**	ug/l	5,310.00	1.6	4500	74	P	
109	**Ag**	1	**12.280**	ug/l	614.00	1.1	4500	103	P	
111	**Cd**	1	**2.079**	ug/l	103.95	5.1	4500	103	P	
118	**Sn**	1	**102.000**	ug/l	5,100.00	1.5	4500	103	P	
123	**Sb**	1	**61.770**	ug/l	3,088.50	1.7	4500	103	P	
135	**Ba**	1	**81.580**	ug/l	4,079.00	0.5	4500	103	P	
200	**Hg**	1	**0.992**	ug/l	49.58	1.0	45	209	P	
205	**Tl**	1	**83.310**	ug/l	4,165.50	5.9	4500	165	A	
208	**Pb**	1	**20.590**	ug/l	1,029.50	1.3	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	144.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62757	1.65	81580	**76.9**	30	-	125	
45	Sc	1	1482534	1.54	1568000	**94.5**	30	-	125	
74	Ge	1	3976385	1.74	3965000	**100.3**	30	-	125	
103	Rh	1	5812240	0.49	5756000	**101.0**	30	-	125	
165	Ho	1	2826864	0.63	2702000	**104.6**	30	-	125	
175	Lu	1	2438987	0.54	2349000	**103.8**	30	-	125	
209	Bi	1	3029220	1.12	2910000	**104.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\124SMPL.D\124SMPL.D#
Date Acquired: Sep 16 2011 12:11 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-3-D MSD Vial Number: 4307
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.455**	ug/l	122.75	5.4	900	6	P	
23	**Na**	1	**621.800**	ug/l	31,090.00	0.1	450000	6	A	
24	**Mg**	1	**515.900**	ug/l	25,795.00	0.5	450000	6	P	
27	**Al**	1	**120.200**	ug/l	6,010.00	0.5	450000	6	P	
31	**P**	1	**517.400**	ug/l	25,870.00	2.6	450000	6	P	
39	**K**	1	**485.700**	ug/l	24,285.00	3.5	450000	45	P	
44	**Ca**	1	**475.000**	ug/l	23,750.00	3.0	450000	45	P	
47	**Ti**	1	**113.200**	ug/l	5,660.00	2.7	4500	45	P	
51	**V**	1	**23.560**	ug/l	1,178.00	3.1	4500	45	P	
52	**Cr**	1	**9.676**	ug/l	483.80	4.2	4500	45	P	
55	**Mn**	1	**24.740**	ug/l	1,237.00	2.6	4500	45	P	
57	**Fe**	1	**495.700**	ug/l	24,785.00	1.9	450000	74	P	
59	**Co**	1	**24.290**	ug/l	1,214.50	3.0	4500	45	P	
60	**Ni**	1	**25.580**	ug/l	1,279.00	2.4	4500	45	P	
63	**Cu**	1	**13.250**	ug/l	662.50	3.0	4500	45	P	
66	**Zn**	1	**23.860**	ug/l	1,193.00	0.4	4500	74	P	
75	**As**	1	**115.700**	ug/l	5,785.00	3.5	4500	45	P	
78	**Se**	1	**103.100**	ug/l	5,155.00	2.7	4500	45	P	
88	**Sr**	1	**-0.002**	ug/l	-0.08	160.4	4500	45	P	
95	**Mo**	1	**118.200**	ug/l	5,910.00	0.8	4500	74	P	
109	**Ag**	1	**13.470**	ug/l	673.50	2.1	4500	103	P	
111	**Cd**	1	**2.324**	ug/l	116.20	4.1	4500	103	P	
118	**Sn**	1	**112.900**	ug/l	5,645.00	1.3	4500	103	P	
123	**Sb**	1	**68.000**	ug/l	3,400.00	0.8	4500	103	P	
135	**Ba**	1	**90.040**	ug/l	4,502.00	0.9	4500	103	P	
200	**Hg**	1	**1.099**	ug/l	54.95	2.7	45	209	P	
205	**Tl**	1	**92.590**	ug/l	4,629.50	1.8	4500	165	A	
208	**Pb**	1	**22.670**	ug/l	1,133.50	2.5	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.01	231.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63203	1.12	81580	**77.5**	30	-	125	
45	Sc	1	1484658	2.69	1568000	**94.7**	30	-	125	
74	Ge	1	4018566	0.54	3965000	**101.4**	30	-	125	
103	Rh	1	5903781	0.80	5756000	**102.6**	30	-	125	
165	Ho	1	2854258	1.81	2702000	**105.6**	30	-	125	
175	Lu	1	2471003	0.77	2349000	**105.2**	30	-	125	
209	Bi	1	3090615	2.32	2910000	**106.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\125SMPL.D\125SMPL.D#
Date Acquired: Sep 16 2011 12:15 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-3-A PDS Vial Number: 4308
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.519**	ug/l	125.95	6.1	900	6	P	
23	**Na**	1	**610.500**	ug/l	30,525.00	2.4	450000	6	A	
24	**Mg**	1	**517.600**	ug/l	25,880.00	1.6	450000	6	P	
27	**Al**	1	**119.800**	ug/l	5,990.00	1.3	450000	6	P	
31	**P**	1	**504.000**	ug/l	25,200.00	2.4	450000	6	P	
39	**K**	1	**475.600**	ug/l	23,780.00	3.1	450000	45	P	
44	**Ca**	1	**466.300**	ug/l	23,315.00	2.1	450000	45	P	
47	**Ti**	1	**111.400**	ug/l	5,570.00	1.8	4500	45	P	
51	**V**	1	**23.480**	ug/l	1,174.00	2.9	4500	45	P	
52	**Cr**	1	**9.579**	ug/l	478.95	3.0	4500	45	P	
55	**Mn**	1	**24.350**	ug/l	1,217.50	3.5	4500	45	P	
57	**Fe**	1	**482.800**	ug/l	24,140.00	1.6	450000	74	P	
59	**Co**	1	**23.830**	ug/l	1,191.50	2.3	4500	45	P	
60	**Ni**	1	**25.010**	ug/l	1,250.50	2.7	4500	45	P	
63	**Cu**	1	**13.060**	ug/l	653.00	3.3	4500	45	P	
66	**Zn**	1	**23.290**	ug/l	1,164.50	1.4	4500	74	P	
75	**As**	1	**115.200**	ug/l	5,760.00	2.5	4500	45	P	
78	**Se**	1	**100.700**	ug/l	5,035.00	3.1	4500	45	P	
88	**Sr**	1	**-0.012**	ug/l	-0.61	27.4	4500	45	P	
95	**Mo**	1	**116.800**	ug/l	5,840.00	1.6	4500	74	P	
109	**Ag**	1	**13.340**	ug/l	667.00	1.0	4500	103	P	
111	**Cd**	1	**2.211**	ug/l	110.55	0.9	4500	103	P	
118	**Sn**	1	**112.900**	ug/l	5,645.00	0.6	4500	103	P	
123	**Sb**	1	**67.510**	ug/l	3,375.50	0.8	4500	103	P	
135	**Ba**	1	**89.110**	ug/l	4,455.50	0.9	4500	103	P	
200	**Hg**	1	**1.080**	ug/l	54.00	3.1	45	209	P	
205	**Tl**	1	**90.970**	ug/l	4,548.50	3.2	4500	165	A	
208	**Pb**	1	**22.230**	ug/l	1,111.50	1.4	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	200.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61413	1.68	81580	**75.3**	30	-	125	
45	Sc	1	1468192	2.76	1568000	**93.6**	30	-	125	
74	Ge	1	3998081	1.15	3965000	**100.8**	30	-	125	
103	Rh	1	5852555	0.61	5756000	**101.7**	30	-	125	
165	Ho	1	2877929	2.51	2702000	**106.5**	30	-	125	
175	Lu	1	2473035	2.48	2349000	**105.3**	30	-	125	
209	Bi	1	3101375	0.94	2910000	**106.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\126SMPL.D\126SMPL.D#
Date Acquired: Sep 16 2011 12:20 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95414/23-A Vial Number: 4309
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.118**	ug/l	105.90	4.6	900	6	P	
23	**Na**	1	**486.400**	ug/l	24,320.00	1.1	450000	6	P	
24	**Mg**	1	**450.000**	ug/l	22,500.00	1.3	450000	6	P	
27	**Al**	1	**91.890**	ug/l	4,594.50	2.7	450000	6	P	
31	**P**	1	**430.300**	ug/l	21,515.00	2.2	450000	6	P	
39	**K**	1	**370.600**	ug/l	18,530.00	0.7	450000	45	P	
44	**Ca**	1	**399.400**	ug/l	19,970.00	0.2	450000	45	P	
47	**Ti**	1	**97.040**	ug/l	4,852.00	1.4	4500	45	P	
51	**V**	1	**20.450**	ug/l	1,022.50	1.6	4500	45	P	
52	**Cr**	1	**8.268**	ug/l	413.40	0.9	4500	45	P	
55	**Mn**	1	**21.140**	ug/l	1,057.00	0.1	4500	45	P	
57	**Fe**	1	**414.500**	ug/l	20,725.00	1.5	450000	74	P	
59	**Co**	1	**20.870**	ug/l	1,043.50	1.6	4500	45	P	
60	**Ni**	1	**21.700**	ug/l	1,085.00	2.0	4500	45	P	
63	**Cu**	1	**11.190**	ug/l	559.50	1.6	4500	45	P	
66	**Zn**	1	**20.620**	ug/l	1,031.00	2.9	4500	74	P	
75	**As**	1	**90.500**	ug/l	4,525.00	0.9	4500	45	P	
78	**Se**	1	**88.490**	ug/l	4,424.50	0.6	4500	45	P	
88	**Sr**	1	**0.014**	ug/l	0.71	51.4	4500	45	P	
95	**Mo**	1	**101.100**	ug/l	5,055.00	0.7	4500	74	P	
109	**Ag**	1	**11.800**	ug/l	590.00	0.8	4500	103	P	
111	**Cd**	1	**1.944**	ug/l	97.20	3.0	4500	103	P	
118	**Sn**	1	**98.670**	ug/l	4,933.50	1.6	4500	103	P	
123	**Sb**	1	**57.420**	ug/l	2,871.00	1.1	4500	103	P	
135	**Ba**	1	**78.330**	ug/l	3,916.50	1.0	4500	103	P	
200	**Hg**	1	**0.958**	ug/l	47.90	4.2	45	209	P	
205	**Tl**	1	**80.060**	ug/l	4,003.00	3.7	4500	165	A	
208	**Pb**	1	**19.400**	ug/l	970.00	1.7	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.04	96.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61425	1.31	81580	**75.3**	30	-	125	
45	Sc	1	1457730	1.50	1568000	**93.0**	30	-	125	
74	Ge	1	3983961	1.17	3965000	**100.5**	30	-	125	
103	Rh	1	5821080	1.04	5756000	**101.1**	30	-	125	
165	Ho	1	2856837	2.18	2702000	**105.7**	30	-	125	
175	Lu	1	2479825	1.50	2349000	**105.6**	30	-	125	
209	Bi	1	3114351	1.93	2910000	**107.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\127SMPL.D\127SMPL.D#
Date Acquired: Sep 16 2011 12:24 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95414/24-A Vial Number: 4310
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.255**	ug/l	112.75	3.2	900	6	P	
23	**Na**	1	**495.200**	ug/l	24,760.00	1.1	450000	6	P	
24	**Mg**	1	**456.500**	ug/l	22,825.00	1.6	450000	6	P	
27	**Al**	1	**95.020**	ug/l	4,751.00	0.5	450000	6	P	
31	**P**	1	**442.000**	ug/l	22,100.00	2.5	450000	6	P	
39	**K**	1	**369.400**	ug/l	18,470.00	3.7	450000	45	P	
44	**Ca**	1	**399.500**	ug/l	19,975.00	4.1	450000	45	P	
47	**Ti**	1	**96.570**	ug/l	4,828.50	3.2	4500	45	P	
51	**V**	1	**20.340**	ug/l	1,017.00	2.4	4500	45	P	
52	**Cr**	1	**8.357**	ug/l	417.85	3.3	4500	45	P	
55	**Mn**	1	**21.140**	ug/l	1,057.00	2.8	4500	45	P	
57	**Fe**	1	**425.800**	ug/l	21,290.00	1.4	450000	74	P	
59	**Co**	1	**20.860**	ug/l	1,043.00	3.4	4500	45	P	
60	**Ni**	1	**21.740**	ug/l	1,087.00	1.9	4500	45	P	
63	**Cu**	1	**11.190**	ug/l	559.50	3.3	4500	45	P	
66	**Zn**	1	**20.720**	ug/l	1,036.00	0.9	4500	74	P	
75	**As**	1	**90.330**	ug/l	4,516.50	2.5	4500	45	P	
78	**Se**	1	**88.670**	ug/l	4,433.50	1.2	4500	45	P	
88	**Sr**	1	**0.004**	ug/l	0.22	197.0	4500	45	P	
95	**Mo**	1	**103.000**	ug/l	5,150.00	1.3	4500	74	P	
109	**Ag**	1	**11.710**	ug/l	585.50	0.8	4500	103	P	
111	**Cd**	1	**1.911**	ug/l	95.55	0.3	4500	103	P	
118	**Sn**	1	**97.700**	ug/l	4,885.00	1.0	4500	103	P	
123	**Sb**	1	**56.710**	ug/l	2,835.50	1.2	4500	103	P	
135	**Ba**	1	**76.780**	ug/l	3,839.00	0.6	4500	103	P	
200	**Hg**	1	**0.965**	ug/l	48.25	1.8	45	209	P	
205	**Tl**	1	**79.930**	ug/l	3,996.50	3.5	4500	165	A	
208	**Pb**	1	**19.460**	ug/l	973.00	0.2	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	151.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60948	0.90	81580	**74.7**	30	-	125	
45	Sc	1	1489593	2.57	1568000	**95.0**	30	-	125	
74	Ge	1	4065069	0.87	3965000	**102.5**	30	-	125	
103	Rh	1	6006244	0.41	5756000	**104.3**	30	-	125	
165	Ho	1	2919975	1.19	2702000	**108.1**	30	-	125	
175	Lu	1	2561874	2.23	2349000	**109.1**	30	-	125	
209	Bi	1	3169192	0.56	2910000	**108.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\128SMPL.D\128SMPL.D#
Date Acquired: Sep 16 2011 12:28 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**52.380**	ug/l	52.38	2.1	900	6	P	
23	**Na**	1	**5350.000**	ug/l	5,350.00	1.5	450000	6	A	
24	**Mg**	1	**5350.000**	ug/l	5,350.00	1.6	450000	6	A	
27	**Al**	1	**549.800**	ug/l	549.80	1.9	450000	6	P	
31	**P**	1	**5383.000**	ug/l	5,383.00	1.5	450000	6	P	
39	**K**	1	**4557.000**	ug/l	4,557.00	4.5	450000	45	A	
44	**Ca**	1	**4755.000**	ug/l	4,755.00	4.0	450000	45	P	
47	**Ti**	1	**48.250**	ug/l	48.25	3.3	4500	45	P	
51	**V**	1	**49.570**	ug/l	49.57	5.2	4500	45	P	
52	**Cr**	1	**50.000**	ug/l	50.00	4.9	4500	45	P	
55	**Mn**	1	**50.540**	ug/l	50.54	4.6	4500	45	P	
57	**Fe**	1	**4784.000**	ug/l	4,784.00	0.4	450000	74	A	
59	**Co**	1	**49.660**	ug/l	49.66	4.3	4500	45	P	
60	**Ni**	1	**51.620**	ug/l	51.62	5.0	4500	45	P	
63	**Cu**	1	**52.540**	ug/l	52.54	5.1	4500	45	P	
66	**Zn**	1	**47.190**	ug/l	47.19	2.1	4500	74	P	
75	**As**	1	**52.970**	ug/l	52.97	4.4	4500	45	P	
78	**Se**	1	**52.880**	ug/l	52.88	6.1	4500	45	P	
88	**Sr**	1	**53.270**	ug/l	53.27	3.6	4500	45	P	
95	**Mo**	1	**48.430**	ug/l	48.43	2.0	4500	74	P	
109	**Ag**	1	**46.400**	ug/l	46.40	2.2	4500	103	P	
111	**Cd**	1	**47.730**	ug/l	47.73	2.1	4500	103	P	
118	**Sn**	1	**48.030**	ug/l	48.03	2.1	4500	103	P	
123	**Sb**	1	**48.480**	ug/l	48.48	1.4	4500	103	P	
135	**Ba**	1	**47.750**	ug/l	47.75	2.3	4500	103	P	
200	**Hg**	1	**2.361**	ug/l	2.36	2.5	45	209	P	
205	**Tl**	1	**48.860**	ug/l	48.86	1.6	4500	165	A	
208	**Pb**	1	**46.690**	ug/l	46.69	1.8	4500	209	P	
238	**U**	1	**48.720**	ug/l	48.72	2.2	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62963	2.15	81580	**77.2**	30	-	125	
45	Sc	1	1491774	5.03	1568000	**95.1**	30	-	125	
74	Ge	1	4034090	1.92	3965000	**101.7**	30	-	125	
103	Rh	1	5739790	1.63	5756000	**99.7**	30	-	125	
165	Ho	1	2878333	1.99	2702000	**106.5**	30	-	125	
175	Lu	1	2482374	1.59	2349000	**105.7**	30	-	125	
209	Bi	1	3031646	1.54	2910000	**104.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\129SMPL.D\129SMPL.D#
Date Acquired: Sep 16 2011 12:33 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.00	167.5	900	6	P	
23	**Na**	1	**34.340**	ug/l	34.34	3.3	450000	6	P	
24	**Mg**	1	**1.025**	ug/l	1.03	22.6	450000	6	P	
27	**Al**	1	**1.348**	ug/l	1.35	168.0	450000	6	P	
31	**P**	1	**1.910**	ug/l	1.91	138.6	450000	6	P	
39	**K**	1	**-14.740**	ug/l	-14.74	17.1	450000	45	P	
44	**Ca**	1	**0.733**	ug/l	0.73	39.8	450000	45	P	
47	**Ti**	1	**0.108**	ug/l	0.11	28.5	4500	45	P	
51	**V**	1	**-0.299**	ug/l	-0.30	7.7	4500	45	P	
52	**Cr**	1	**0.007**	ug/l	0.01	99.6	4500	45	P	
55	**Mn**	1	**0.021**	ug/l	0.02	32.7	4500	45	P	
57	**Fe**	1	**1.518**	ug/l	1.52	10.7	450000	74	P	
59	**Co**	1	**0.005**	ug/l	0.01	59.4	4500	45	P	
60	**Ni**	1	**0.008**	ug/l	0.01	35.9	4500	45	P	
63	**Cu**	1	**0.027**	ug/l	0.03	109.0	4500	45	P	
66	**Zn**	1	**-0.001**	ug/l	0.00	3391.4	4500	74	P	
75	**As**	1	**-0.008**	ug/l	-0.01	445.7	4500	45	P	
78	**Se**	1	**0.062**	ug/l	0.06	124.2	4500	45	P	
88	**Sr**	1	**0.016**	ug/l	0.02	49.8	4500	45	P	
95	**Mo**	1	**0.155**	ug/l	0.16	20.2	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.01	22.8	4500	103	P	
111	**Cd**	1	**0.007**	ug/l	0.01	97.2	4500	103	P	
118	**Sn**	1	**0.360**	ug/l	0.36	20.4	4500	103	P	
123	**Sb**	1	**0.085**	ug/l	0.09	26.7	4500	103	P	
135	**Ba**	1	**-0.001**	ug/l	0.00	799.2	4500	103	P	
200	**Hg**	1	**0.008**	ug/l	0.01	80.8	45	209	P	
205	**Tl**	1	**0.523**	ug/l	0.52	12.5	4500	165	P	
208	**Pb**	1	**0.010**	ug/l	0.01	122.7	4500	209	P	
238	**U**	1	**0.016**	ug/l	0.02	6.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63250	0.45	81580	**77.5**	30	-	125	
45	Sc	1	1508272	3.07	1568000	**96.2**	30	-	125	
74	Ge	1	4049989	1.52	3965000	**102.1**	30	-	125	
103	Rh	1	5950242	2.80	5756000	**103.4**	30	-	125	
165	Ho	1	2916599	2.94	2702000	**107.9**	30	-	125	
175	Lu	1	2492059	1.65	2349000	**106.1**	30	-	125	
209	Bi	1	3120084	3.03	2910000	**107.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\130SMPL.D\130SMPL.D#
Date Acquired: Sep 16 2011 12:37 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-1-A Vial Number: 4401
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.007**	ug/l	-0.03	162.3	900	6	P	
23	**Na**	1	**3207.000**	ug/l	16,035.00	1.0	450000	6	A	
24	**Mg**	1	**267.400**	ug/l	1,337.00	0.5	450000	6	P	
27	**Al**	1	**155.300**	ug/l	776.50	0.7	450000	6	P	
31	**P**	1	**219.900**	ug/l	1,099.50	2.4	450000	6	P	
39	**K**	1	**25790.000**	ug/l	128,950.00	2.8	450000	45	A	
44	**Ca**	1	**319.800**	ug/l	1,599.00	2.5	450000	45	P	
47	**Ti**	1	**1.041**	ug/l	5.21	5.0	4500	45	P	
51	**V**	1	**0.179**	ug/l	0.89	11.1	4500	45	P	
52	**Cr**	1	**0.380**	ug/l	1.90	8.3	4500	45	P	
55	**Mn**	1	**7.205**	ug/l	36.03	4.4	4500	45	P	
57	**Fe**	1	**304.100**	ug/l	1,520.50	1.4	450000	74	P	
59	**Co**	1	**0.072**	ug/l	0.36	14.4	4500	45	P	
60	**Ni**	1	**1.815**	ug/l	9.08	5.1	4500	45	P	
63	**Cu**	1	**0.978**	ug/l	4.89	5.2	4500	45	P	
66	**Zn**	1	**38.580**	ug/l	192.90	1.3	4500	74	P	
75	**As**	1	**62.890**	ug/l	314.45	4.1	4500	45	P	
78	**Se**	1	**0.107**	ug/l	0.53	34.4	4500	45	P	
88	**Sr**	1	**1.522**	ug/l	7.61	3.9	4500	45	P	
95	**Mo**	1	**0.403**	ug/l	2.01	3.8	4500	74	P	
109	**Ag**	1	**0.007**	ug/l	0.04	27.0	4500	103	P	
111	**Cd**	1	**0.246**	ug/l	1.23	14.5	4500	103	P	
118	**Sn**	1	**0.313**	ug/l	1.57	19.6	4500	103	P	
123	**Sb**	1	**0.293**	ug/l	1.47	6.8	4500	103	P	
135	**Ba**	1	**0.402**	ug/l	2.01	7.9	4500	103	P	
200	**Hg**	1	**0.022**	ug/l	0.11	23.3	45	209	P	
205	**Tl**	1	**0.216**	ug/l	1.08	15.8	4500	165	P	
208	**Pb**	1	**0.358**	ug/l	1.79	4.8	4500	209	P	
238	**U**	1	**0.007**	ug/l	0.03	17.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61078	0.30	81580	**74.9**	30	-	125	
45	Sc	1	1486566	3.68	1568000	**94.8**	30	-	125	
74	Ge	1	3937603	0.88	3965000	**99.3**	30	-	125	
103	Rh	1	5676801	1.12	5756000	**98.6**	30	-	125	
165	Ho	1	2835120	1.49	2702000	**104.9**	30	-	125	
175	Lu	1	2466716	1.13	2349000	**105.0**	30	-	125	
209	Bi	1	2970076	0.80	2910000	**102.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\131SMPL.D\131SMPL.D#
Date Acquired: Sep 16 2011 12:42 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-2-A Vial Number: 4402
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	-0.01	656.9	900	6	P	
23	**Na**	1	**1133.000**	ug/l	5,665.00	1.0	450000	6	A	
24	**Mg**	1	**23.510**	ug/l	117.55	4.3	450000	6	P	
27	**Al**	1	**72.710**	ug/l	363.55	1.6	450000	6	P	
31	**P**	1	**84.360**	ug/l	421.80	5.6	450000	6	P	
39	**K**	1	**3933.000**	ug/l	19,665.00	3.1	450000	45	A	
44	**Ca**	1	**115.300**	ug/l	576.50	3.4	450000	45	P	
47	**Ti**	1	**1.005**	ug/l	5.03	7.5	4500	45	P	
51	**V**	1	**0.174**	ug/l	0.87	54.8	4500	45	P	
52	**Cr**	1	**0.428**	ug/l	2.14	6.7	4500	45	P	
55	**Mn**	1	**1.274**	ug/l	6.37	4.8	4500	45	P	
57	**Fe**	1	**43.130**	ug/l	215.65	0.8	450000	74	P	
59	**Co**	1	**0.015**	ug/l	0.08	30.0	4500	45	P	
60	**Ni**	1	**0.303**	ug/l	1.52	2.1	4500	45	P	
63	**Cu**	1	**0.194**	ug/l	0.97	8.4	4500	45	P	
66	**Zn**	1	**11.180**	ug/l	55.90	1.7	4500	74	P	
75	**As**	1	**90.690**	ug/l	453.45	4.0	4500	45	P	
78	**Se**	1	**0.154**	ug/l	0.77	30.1	4500	45	P	
88	**Sr**	1	**0.211**	ug/l	1.06	10.6	4500	45	P	
95	**Mo**	1	**0.188**	ug/l	0.94	7.6	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.03	16.6	4500	103	P	
111	**Cd**	1	**0.005**	ug/l	0.03	290.6	4500	103	P	
118	**Sn**	1	**0.223**	ug/l	1.12	18.0	4500	103	P	
123	**Sb**	1	**0.140**	ug/l	0.70	4.9	4500	103	P	
135	**Ba**	1	**0.113**	ug/l	0.56	18.2	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.05	35.7	45	209	P	
205	**Tl**	1	**0.151**	ug/l	0.76	19.8	4500	165	P	
208	**Pb**	1	**0.118**	ug/l	0.59	1.3	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.01	18.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59564	0.80	81580	**73.0**	30	-	125	
45	Sc	1	1426274	3.56	1568000	**91.0**	30	-	125	
74	Ge	1	3932478	1.18	3965000	**99.2**	30	-	125	
103	Rh	1	5766006	1.26	5756000	**100.2**	30	-	125	
165	Ho	1	2874517	0.38	2702000	**106.4**	30	-	125	
175	Lu	1	2513061	2.52	2349000	**107.0**	30	-	125	
209	Bi	1	3102848	0.76	2910000	**106.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\132SMPL.D\132SMPL.D#
Date Acquired: Sep 16 2011 12:46 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-4-A Vial Number: 4403
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.010**	ug/l	-0.05	114.7	900	6	P	
23	**Na**	1	**2487.000**	ug/l	12,435.00	3.4	450000	6	A	
24	**Mg**	1	**228.800**	ug/l	1,144.00	3.6	450000	6	P	
27	**Al**	1	**44.180**	ug/l	220.90	5.6	450000	6	P	
31	**P**	1	**108.000**	ug/l	540.00	4.3	450000	6	P	
39	**K**	1	**979.200**	ug/l	4,896.00	3.1	450000	45	A	
44	**Ca**	1	**617.800**	ug/l	3,089.00	3.2	450000	45	P	
47	**Ti**	1	**0.855**	ug/l	4.27	6.8	4500	45	P	
51	**V**	1	**0.359**	ug/l	1.79	14.1	4500	45	P	
52	**Cr**	1	**0.286**	ug/l	1.43	4.7	4500	45	P	
55	**Mn**	1	**0.555**	ug/l	2.78	5.4	4500	45	P	
57	**Fe**	1	**7.517**	ug/l	37.59	5.7	450000	74	P	
59	**Co**	1	**0.011**	ug/l	0.05	22.4	4500	45	P	
60	**Ni**	1	**0.147**	ug/l	0.74	18.6	4500	45	P	
63	**Cu**	1	**0.648**	ug/l	3.24	2.5	4500	45	P	
66	**Zn**	1	**17.170**	ug/l	85.85	2.4	4500	74	P	
75	**As**	1	**96.520**	ug/l	482.60	3.9	4500	45	P	
78	**Se**	1	**0.118**	ug/l	0.59	37.8	4500	45	P	
88	**Sr**	1	**2.400**	ug/l	12.00	3.0	4500	45	P	
95	**Mo**	1	**0.072**	ug/l	0.36	15.8	4500	74	P	
109	**Ag**	1	**0.010**	ug/l	0.05	2.5	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.00	93.0	4500	103	P	
118	**Sn**	1	**0.199**	ug/l	0.99	6.5	4500	103	P	
123	**Sb**	1	**0.049**	ug/l	0.25	3.6	4500	103	P	
135	**Ba**	1	**0.087**	ug/l	0.43	13.9	4500	103	P	
200	**Hg**	1	**0.000**	ug/l	0.00	1046.9	45	209	P	
205	**Tl**	1	**0.119**	ug/l	0.60	22.5	4500	165	P	
208	**Pb**	1	**0.083**	ug/l	0.41	18.2	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.01	36.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	60047	4.12	81580	**73.6**	30 - 125	
45	Sc	1	1433574	3.00	1568000	**91.4**	30 - 125	
74	Ge	1	4021651	0.87	3965000	**101.4**	30 - 125	
103	Rh	1	5887053	1.00	5756000	**102.3**	30 - 125	
165	Ho	1	2901167	0.65	2702000	**107.4**	30 - 125	
175	Lu	1	2525089	0.58	2349000	**107.5**	30 - 125	
209	Bi	1	3157011	0.67	2910000	**108.5**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\133SMPL.D\133SMPL.D#
Date Acquired: Sep 16 2011 12:50 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-5-A Vial Number: 4404
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.011**	ug/l	-0.06	52.2	900	6	P	
23	**Na**	1	**2547.000**	ug/l	12,735.00	1.2	450000	6	A	
24	**Mg**	1	**108.200**	ug/l	541.00	1.1	450000	6	P	
27	**Al**	1	**25.330**	ug/l	126.65	1.0	450000	6	P	
31	**P**	1	**44.250**	ug/l	221.25	4.0	450000	6	P	
39	**K**	1	**884.500**	ug/l	4,422.50	0.5	450000	45	A	
44	**Ca**	1	**355.900**	ug/l	1,779.50	1.2	450000	45	P	
47	**Ti**	1	**0.680**	ug/l	3.40	2.3	4500	45	P	
51	**V**	1	**0.266**	ug/l	1.33	8.8	4500	45	P	
52	**Cr**	1	**0.312**	ug/l	1.56	2.8	4500	45	P	
55	**Mn**	1	**0.370**	ug/l	1.85	9.2	4500	45	P	
57	**Fe**	1	**7.578**	ug/l	37.89	6.5	450000	74	P	
59	**Co**	1	**0.012**	ug/l	0.06	9.6	4500	45	P	
60	**Ni**	1	**0.327**	ug/l	1.64	7.6	4500	45	P	
63	**Cu**	1	**0.286**	ug/l	1.43	5.7	4500	45	P	
66	**Zn**	1	**13.060**	ug/l	65.30	0.7	4500	74	P	
75	**As**	1	**106.000**	ug/l	530.00	1.7	4500	45	P	
78	**Se**	1	**0.121**	ug/l	0.60	70.1	4500	45	P	
88	**Sr**	1	**1.207**	ug/l	6.04	1.2	4500	45	P	
95	**Mo**	1	**0.056**	ug/l	0.28	20.3	4500	74	P	
109	**Ag**	1	**0.012**	ug/l	0.06	25.0	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.00	1729.4	4500	103	P	
118	**Sn**	1	**0.127**	ug/l	0.64	23.8	4500	103	P	
123	**Sb**	1	**0.037**	ug/l	0.19	21.2	4500	103	P	
135	**Ba**	1	**0.051**	ug/l	0.26	33.5	4500	103	P	
200	**Hg**	1	**-0.002**	ug/l	-0.01	135.2	45	209	P	
205	**Tl**	1	**0.088**	ug/l	0.44	23.7	4500	165	P	
208	**Pb**	1	**0.115**	ug/l	0.58	1.6	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.00	85.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56444	0.38	81580	**69.2**	30	-	125	
45	Sc	1	1391325	1.68	1568000	**88.7**	30	-	125	
74	Ge	1	3867600	0.61	3965000	**97.5**	30	-	125	
103	Rh	1	5693380	0.81	5756000	**98.9**	30	-	125	
165	Ho	1	2868639	0.91	2702000	**106.2**	30	-	125	
175	Lu	1	2496659	0.60	2349000	**106.3**	30	-	125	
209	Bi	1	3073097	0.35	2910000	**105.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\134SMPL.D\134SMPL.D#
Date Acquired: Sep 16 2011 12:55 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-6-A Vial Number: 4405
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	-0.01	355.2	900	6	P	
23	**Na**	1	**2308.000**	ug/l	11,540.00	3.3	450000	6	A	
24	**Mg**	1	**32.100**	ug/l	160.50	1.2	450000	6	P	
27	**Al**	1	**14.000**	ug/l	70.00	1.9	450000	6	P	
31	**P**	1	**27.910**	ug/l	139.55	8.7	450000	6	P	
39	**K**	1	**369.500**	ug/l	1,847.50	2.9	450000	45	P	
44	**Ca**	1	**224.200**	ug/l	1,121.00	2.5	450000	45	P	
47	**Ti**	1	**0.951**	ug/l	4.75	5.4	4500	45	P	
51	**V**	1	**0.168**	ug/l	0.84	5.7	4500	45	P	
52	**Cr**	1	**0.404**	ug/l	2.02	3.1	4500	45	P	
55	**Mn**	1	**0.246**	ug/l	1.23	4.2	4500	45	P	
57	**Fe**	1	**13.830**	ug/l	69.15	4.4	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.04	18.1	4500	45	P	
60	**Ni**	1	**0.111**	ug/l	0.55	18.8	4500	45	P	
63	**Cu**	1	**0.404**	ug/l	2.02	12.2	4500	45	P	
66	**Zn**	1	**5.190**	ug/l	25.95	0.5	4500	74	P	
75	**As**	1	**111.700**	ug/l	558.50	3.2	4500	45	P	
78	**Se**	1	**0.200**	ug/l	1.00	51.6	4500	45	P	
88	**Sr**	1	**0.381**	ug/l	1.91	2.8	4500	45	P	
95	**Mo**	1	**0.047**	ug/l	0.23	11.9	4500	74	P	
109	**Ag**	1	**0.014**	ug/l	0.07	12.0	4500	103	P	
111	**Cd**	1	**0.000**	ug/l	0.00	7496.6	4500	103	P	
118	**Sn**	1	**0.105**	ug/l	0.53	34.4	4500	103	P	
123	**Sb**	1	**0.030**	ug/l	0.15	24.0	4500	103	P	
135	**Ba**	1	**0.062**	ug/l	0.31	17.0	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.02	57.5	45	209	P	
205	**Tl**	1	**0.063**	ug/l	0.32	19.5	4500	165	P	
208	**Pb**	1	**0.117**	ug/l	0.58	12.1	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	116.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	55670	2.71	81580	**68.2**	30	-	125	
45	Sc	1	1381763	2.35	1568000	**88.1**	30	-	125	
74	Ge	1	3877853	0.76	3965000	**97.8**	30	-	125	
103	Rh	1	5750595	1.48	5756000	**99.9**	30	-	125	
165	Ho	1	2836058	0.91	2702000	**105.0**	30	-	125	
175	Lu	1	2481245	0.43	2349000	**105.6**	30	-	125	
209	Bi	1	3092090	0.63	2910000	**106.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\135SMPL.D\135SMPL.D#
Date Acquired: Sep 16 2011 12:59 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-7-A Vial Number: 4406
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.007**	ug/l	-0.03	47.7	900	6	P	
23	**Na**	1	**4078.000**	ug/l	20,390.00	1.9	450000	6	A	
24	**Mg**	1	**208.600**	ug/l	1,043.00	0.6	450000	6	P	
27	**Al**	1	**16.920**	ug/l	84.60	2.4	450000	6	P	
31	**P**	1	**35.600**	ug/l	178.00	8.1	450000	6	P	
39	**K**	1	**431.400**	ug/l	2,157.00	3.4	450000	45	P	
44	**Ca**	1	**663.700**	ug/l	3,318.50	3.3	450000	45	P	
47	**Ti**	1	**0.830**	ug/l	4.15	2.9	4500	45	P	
51	**V**	1	**0.365**	ug/l	1.82	9.1	4500	45	P	
52	**Cr**	1	**0.349**	ug/l	1.75	8.4	4500	45	P	
55	**Mn**	1	**0.492**	ug/l	2.46	1.3	4500	45	P	
57	**Fe**	1	**11.260**	ug/l	56.30	5.7	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.04	22.5	4500	45	P	
60	**Ni**	1	**0.088**	ug/l	0.44	27.0	4500	45	P	
63	**Cu**	1	**0.133**	ug/l	0.66	26.0	4500	45	P	
66	**Zn**	1	**16.180**	ug/l	80.90	1.3	4500	74	P	
75	**As**	1	**102.500**	ug/l	512.50	3.4	4500	45	P	
78	**Se**	1	**0.142**	ug/l	0.71	50.7	4500	45	P	
88	**Sr**	1	**2.430**	ug/l	12.15	2.7	4500	45	P	
95	**Mo**	1	**0.040**	ug/l	0.20	21.8	4500	74	P	
109	**Ag**	1	**0.024**	ug/l	0.12	17.8	4500	103	P	
111	**Cd**	1	**-0.007**	ug/l	-0.03	64.7	4500	103	P	
118	**Sn**	1	**0.086**	ug/l	0.43	27.5	4500	103	P	
123	**Sb**	1	**0.037**	ug/l	0.19	12.9	4500	103	P	
135	**Ba**	1	**0.095**	ug/l	0.48	25.5	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.02	19.0	45	209	P	
205	**Tl**	1	**0.044**	ug/l	0.22	20.2	4500	165	P	
208	**Pb**	1	**0.081**	ug/l	0.40	10.1	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	161.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	55219	1.85	81580	**67.7**	30 - 125	
45	Sc	1	1386678	3.38	1568000	**88.4**	30 - 125	
74	Ge	1	3910353	0.50	3965000	**98.6**	30 - 125	
103	Rh	1	5686995	1.01	5756000	**98.8**	30 - 125	
165	Ho	1	2837245	1.12	2702000	**105.0**	30 - 125	
175	Lu	1	2481090	0.58	2349000	**105.6**	30 - 125	
209	Bi	1	3069906	2.32	2910000	**105.5**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\136SMPL.D\136SMPL.D#
Date Acquired: Sep 16 2011 01:04 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-8-A Vial Number: 4407
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.015**	ug/l	-0.07	59.6	900	6	P	
23	**Na**	1	**3724.000**	ug/l	18,620.00	1.5	450000	6	A	
24	**Mg**	1	**94.280**	ug/l	471.40	0.5	450000	6	P	
27	**Al**	1	**15.830**	ug/l	79.15	5.6	450000	6	P	
31	**P**	1	**28.900**	ug/l	144.50	12.1	450000	6	P	
39	**K**	1	**274.000**	ug/l	1,370.00	0.5	450000	45	P	
44	**Ca**	1	**727.800**	ug/l	3,639.00	0.4	450000	45	P	
47	**Ti**	1	**0.789**	ug/l	3.95	11.4	4500	45	P	
51	**V**	1	**0.311**	ug/l	1.55	8.9	4500	45	P	
52	**Cr**	1	**0.431**	ug/l	2.15	7.3	4500	45	P	
55	**Mn**	1	**0.565**	ug/l	2.83	2.4	4500	45	P	
57	**Fe**	1	**23.210**	ug/l	116.05	2.5	450000	74	P	
59	**Co**	1	**0.009**	ug/l	0.04	18.5	4500	45	P	
60	**Ni**	1	**0.139**	ug/l	0.70	24.5	4500	45	P	
63	**Cu**	1	**0.227**	ug/l	1.14	2.7	4500	45	P	
66	**Zn**	1	**11.320**	ug/l	56.60	3.0	4500	74	P	
75	**As**	1	**95.250**	ug/l	476.25	0.9	4500	45	P	
78	**Se**	1	**0.146**	ug/l	0.73	74.7	4500	45	P	
88	**Sr**	1	**1.320**	ug/l	6.60	0.2	4500	45	P	
95	**Mo**	1	**0.056**	ug/l	0.28	4.3	4500	74	P	
109	**Ag**	1	**0.026**	ug/l	0.13	11.7	4500	103	P	
111	**Cd**	1	**-0.007**	ug/l	-0.03	152.4	4500	103	P	
118	**Sn**	1	**0.101**	ug/l	0.50	15.9	4500	103	P	
123	**Sb**	1	**0.027**	ug/l	0.14	27.3	4500	103	P	
135	**Ba**	1	**0.180**	ug/l	0.90	2.4	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.02	39.9	45	209	P	
205	**Tl**	1	**0.038**	ug/l	0.19	28.7	4500	165	P	
208	**Pb**	1	**0.316**	ug/l	1.58	5.9	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.00	154.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	55826	1.26	81580	**68.4**	30	-	125	
45	Sc	1	1403851	0.54	1568000	**89.5**	30	-	125	
74	Ge	1	3840574	0.12	3965000	**96.9**	30	-	125	
103	Rh	1	5683313	0.65	5756000	**98.7**	30	-	125	
165	Ho	1	2876468	0.97	2702000	**106.5**	30	-	125	
175	Lu	1	2482168	0.71	2349000	**105.7**	30	-	125	
209	Bi	1	3093791	1.64	2910000	**106.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\137SMPL.D\137SMPL.D#
Date Acquired: Sep 16 2011 01:08 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-9-A Vial Number: 4408
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.019**	ug/l	-0.09	34.7	900	6	P	
23	**Na**	1	**4126.000**	ug/l	20,630.00	0.8	450000	6	A	
24	**Mg**	1	**66.820**	ug/l	334.10	2.1	450000	6	P	
27	**Al**	1	**18.100**	ug/l	90.50	1.3	450000	6	P	
31	**P**	1	**27.620**	ug/l	138.10	15.4	450000	6	P	
39	**K**	1	**275.700**	ug/l	1,378.50	3.4	450000	45	P	
44	**Ca**	1	**312.000**	ug/l	1,560.00	3.1	450000	45	P	
47	**Ti**	1	**0.165**	ug/l	0.83	4.4	4500	45	P	
51	**V**	1	**0.273**	ug/l	1.36	12.2	4500	45	P	
52	**Cr**	1	**0.183**	ug/l	0.91	11.0	4500	45	P	
55	**Mn**	1	**0.325**	ug/l	1.62	3.5	4500	45	P	
57	**Fe**	1	**9.443**	ug/l	47.22	3.8	450000	74	P	
59	**Co**	1	**0.012**	ug/l	0.06	38.9	4500	45	P	
60	**Ni**	1	**0.091**	ug/l	0.45	24.9	4500	45	P	
63	**Cu**	1	**0.110**	ug/l	0.55	23.5	4500	45	P	
66	**Zn**	1	**5.990**	ug/l	29.95	3.1	4500	74	P	
75	**As**	1	**109.700**	ug/l	548.50	2.1	4500	45	P	
78	**Se**	1	**0.055**	ug/l	0.27	149.5	4500	45	P	
88	**Sr**	1	**0.931**	ug/l	4.66	0.7	4500	45	P	
95	**Mo**	1	**0.047**	ug/l	0.23	8.5	4500	74	P	
109	**Ag**	1	**0.026**	ug/l	0.13	15.0	4500	103	P	
111	**Cd**	1	**0.000**	ug/l	0.00	6295.2	4500	103	P	
118	**Sn**	1	**0.387**	ug/l	1.93	2.7	4500	103	P	
123	**Sb**	1	**0.031**	ug/l	0.16	23.4	4500	103	P	
135	**Ba**	1	**0.069**	ug/l	0.34	35.3	4500	103	P	
200	**Hg**	1	**-0.007**	ug/l	-0.04	46.9	45	209	P	
205	**Tl**	1	**0.038**	ug/l	0.19	32.0	4500	165	P	
208	**Pb**	1	**0.073**	ug/l	0.36	5.9	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	173.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56816	1.59	81580	**69.6**	30	-	125	
45	Sc	1	1400195	1.76	1568000	**89.3**	30	-	125	
74	Ge	1	3910956	0.58	3965000	**98.6**	30	-	125	
103	Rh	1	5704452	0.68	5756000	**99.1**	30	-	125	
165	Ho	1	2868362	0.65	2702000	**106.2**	30	-	125	
175	Lu	1	2516337	0.53	2349000	**107.1**	30	-	125	
209	Bi	1	3118425	1.02	2910000	**107.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\138SMPL.D\138SMPL.D#
Date Acquired: Sep 16 2011 01:13 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-10-A Vial Number: 4409
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.006**	ug/l	-0.03	104.0	900	6	P	
23	**Na**	1	**997.400**	ug/l	4,987.00	1.8	450000	6	A	
24	**Mg**	1	**151.000**	ug/l	755.00	2.2	450000	6	P	
27	**Al**	1	**7.636**	ug/l	38.18	3.3	450000	6	P	
31	**P**	1	**26.590**	ug/l	132.95	9.9	450000	6	P	
39	**K**	1	**159.500**	ug/l	797.50	6.6	450000	45	P	
44	**Ca**	1	**487.200**	ug/l	2,436.00	5.1	450000	45	P	
47	**Ti**	1	**0.084**	ug/l	0.42	34.8	4500	45	P	
51	**V**	1	**0.380**	ug/l	1.90	17.3	4500	45	P	
52	**Cr**	1	**0.100**	ug/l	0.50	21.1	4500	45	P	
55	**Mn**	1	**0.281**	ug/l	1.41	8.8	4500	45	P	
57	**Fe**	1	**9.161**	ug/l	45.81	4.4	450000	74	P	
59	**Co**	1	**0.006**	ug/l	0.03	37.0	4500	45	P	
60	**Ni**	1	**0.074**	ug/l	0.37	16.6	4500	45	P	
63	**Cu**	1	**0.078**	ug/l	0.39	27.8	4500	45	P	
66	**Zn**	1	**6.244**	ug/l	31.22	3.3	4500	74	P	
75	**As**	1	**26.070**	ug/l	130.35	4.4	4500	45	P	
78	**Se**	1	**0.080**	ug/l	0.40	178.1	4500	45	P	
88	**Sr**	1	**1.702**	ug/l	8.51	2.9	4500	45	P	
95	**Mo**	1	**0.035**	ug/l	0.18	25.8	4500	74	P	
109	**Ag**	1	**0.007**	ug/l	0.03	32.7	4500	103	P	
111	**Cd**	1	**-0.006**	ug/l	-0.03	82.2	4500	103	P	
118	**Sn**	1	**0.078**	ug/l	0.39	23.1	4500	103	P	
123	**Sb**	1	**0.015**	ug/l	0.08	8.5	4500	103	P	
135	**Ba**	1	**0.115**	ug/l	0.58	11.0	4500	103	P	
200	**Hg**	1	**-0.003**	ug/l	-0.02	48.8	45	209	P	
205	**Tl**	1	**0.029**	ug/l	0.14	34.1	4500	165	P	
208	**Pb**	1	**0.024**	ug/l	0.12	68.8	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.00	110.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57105	1.57	81580	**70.0**	30	-	125	
45	Sc	1	1422255	4.26	1568000	**90.7**	30	-	125	
74	Ge	1	3920576	1.13	3965000	**98.9**	30	-	125	
103	Rh	1	5804029	1.00	5756000	**100.8**	30	-	125	
165	Ho	1	2881186	3.12	2702000	**106.6**	30	-	125	
175	Lu	1	2525689	2.66	2349000	**107.5**	30	-	125	
209	Bi	1	3171833	1.75	2910000	**109.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\139SMPL.D\139SMPL.D#
Date Acquired: Sep 16 2011 01:17 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-11-A Vial Number: 4410
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.017**	ug/l	-0.08	0.6	900	6	P	
23	**Na**	1	**960.000**	ug/l	4,800.00	3.3	450000	6	A	
24	**Mg**	1	**41.830**	ug/l	209.15	1.4	450000	6	P	
27	**Al**	1	**7.212**	ug/l	36.06	7.3	450000	6	P	
31	**P**	1	**21.270**	ug/l	106.35	18.9	450000	6	P	
39	**K**	1	**106.300**	ug/l	531.50	3.2	450000	45	P	
44	**Ca**	1	**233.400**	ug/l	1,167.00	1.3	450000	45	P	
47	**Ti**	1	**0.646**	ug/l	3.23	5.2	4500	45	P	
51	**V**	1	**0.204**	ug/l	1.02	15.9	4500	45	P	
52	**Cr**	1	**0.259**	ug/l	1.29	7.7	4500	45	P	
55	**Mn**	1	**0.148**	ug/l	0.74	12.6	4500	45	P	
57	**Fe**	1	**4.970**	ug/l	24.85	6.2	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.04	8.0	4500	45	P	
60	**Ni**	1	**0.043**	ug/l	0.21	36.8	4500	45	P	
63	**Cu**	1	**-0.025**	ug/l	-0.13	26.0	4500	45	P	
66	**Zn**	1	**3.956**	ug/l	19.78	3.0	4500	74	P	
75	**As**	1	**28.070**	ug/l	140.35	0.6	4500	45	P	
78	**Se**	1	**0.124**	ug/l	0.62	26.9	4500	45	P	
88	**Sr**	1	**0.521**	ug/l	2.61	0.4	4500	45	P	
95	**Mo**	1	**0.040**	ug/l	0.20	4.1	4500	74	P	
109	**Ag**	1	**0.005**	ug/l	0.02	12.0	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.01	507.1	4500	103	P	
118	**Sn**	1	**0.065**	ug/l	0.33	24.5	4500	103	P	
123	**Sb**	1	**0.012**	ug/l	0.06	32.4	4500	103	P	
135	**Ba**	1	**0.047**	ug/l	0.24	47.5	4500	103	P	
200	**Hg**	1	**-0.005**	ug/l	-0.02	33.1	45	209	P	
205	**Tl**	1	**0.027**	ug/l	0.13	30.1	4500	165	P	
208	**Pb**	1	**0.025**	ug/l	0.13	30.9	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	241.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56506	1.85	81580	**69.3**	30	-	125	
45	Sc	1	1391762	1.42	1568000	**88.8**	30	-	125	
74	Ge	1	3870748	0.86	3965000	**97.6**	30	-	125	
103	Rh	1	5765413	1.26	5756000	**100.2**	30	-	125	
165	Ho	1	2893795	0.89	2702000	**107.1**	30	-	125	
175	Lu	1	2495194	1.71	2349000	**106.2**	30	-	125	
209	Bi	1	3115969	1.14	2910000	**107.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\140SMPL.D\140SMPL.D#
Date Acquired: Sep 16 2011 01:21 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.490**	ug/l	51.49	2.6	900	6	P	
23	**Na**	1	**5253.000**	ug/l	5,253.00	2.9	450000	6	A	
24	**Mg**	1	**5302.000**	ug/l	5,302.00	3.7	450000	6	A	
27	**Al**	1	**548.700**	ug/l	548.70	1.7	450000	6	P	
31	**P**	1	**5342.000**	ug/l	5,342.00	3.3	450000	6	P	
39	**K**	1	**4645.000**	ug/l	4,645.00	3.1	450000	45	A	
44	**Ca**	1	**4763.000**	ug/l	4,763.00	1.0	450000	45	P	
47	**Ti**	1	**47.930**	ug/l	47.93	1.9	4500	45	P	
51	**V**	1	**48.990**	ug/l	48.99	1.9	4500	45	P	
52	**Cr**	1	**49.650**	ug/l	49.65	1.3	4500	45	P	
55	**Mn**	1	**50.420**	ug/l	50.42	1.3	4500	45	P	
57	**Fe**	1	**4651.000**	ug/l	4,651.00	2.2	450000	74	A	
59	**Co**	1	**49.330**	ug/l	49.33	1.8	4500	45	P	
60	**Ni**	1	**51.370**	ug/l	51.37	1.6	4500	45	P	
63	**Cu**	1	**51.910**	ug/l	51.91	1.5	4500	45	P	
66	**Zn**	1	**47.900**	ug/l	47.90	0.9	4500	74	P	
75	**As**	1	**52.820**	ug/l	52.82	2.1	4500	45	P	
78	**Se**	1	**52.680**	ug/l	52.68	1.8	4500	45	P	
88	**Sr**	1	**53.430**	ug/l	53.43	1.2	4500	45	P	
95	**Mo**	1	**48.340**	ug/l	48.34	1.4	4500	74	P	
109	**Ag**	1	**45.930**	ug/l	45.93	1.4	4500	103	P	
111	**Cd**	1	**47.680**	ug/l	47.68	0.9	4500	103	P	
118	**Sn**	1	**47.170**	ug/l	47.17	1.4	4500	103	P	
123	**Sb**	1	**47.920**	ug/l	47.92	1.2	4500	103	P	
135	**Ba**	1	**46.940**	ug/l	46.94	0.7	4500	103	P	
200	**Hg**	1	**2.352**	ug/l	2.35	3.6	45	209	P	
205	**Tl**	1	**47.040**	ug/l	47.04	3.0	4500	165	A	
208	**Pb**	1	**46.800**	ug/l	46.80	2.6	4500	209	P	
238	**U**	1	**48.710**	ug/l	48.71	2.4	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62589	1.76	81580	**76.7**	30	-	125	
45	Sc	1	1482186	1.92	1568000	**94.5**	30	-	125	
74	Ge	1	4011482	1.85	3965000	**101.2**	30	-	125	
103	Rh	1	5780190	1.18	5756000	**100.4**	30	-	125	
165	Ho	1	2916930	1.21	2702000	**108.0**	30	-	125	
175	Lu	1	2535884	1.32	2349000	**108.0**	30	-	125	
209	Bi	1	3055403	2.39	2910000	**105.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\141SMPL.D\141SMPL.D#
Date Acquired: Sep 16 2011 01:26 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.00	133.1	900	6	P	
23	**Na**	1	**37.720**	ug/l	37.72	6.7	450000	6	P	
24	**Mg**	1	**1.823**	ug/l	1.82	66.5	450000	6	P	
27	**Al**	1	**0.435**	ug/l	0.43	91.2	450000	6	P	
31	**P**	1	**1.543**	ug/l	1.54	115.9	450000	6	P	
39	**K**	1	**-15.170**	ug/l	-15.17	16.1	450000	45	P	
44	**Ca**	1	**1.590**	ug/l	1.59	72.2	450000	45	P	
47	**Ti**	1	**0.051**	ug/l	0.05	20.5	4500	45	P	
51	**V**	1	**-0.281**	ug/l	-0.28	4.7	4500	45	P	
52	**Cr**	1	**0.013**	ug/l	0.01	72.7	4500	45	P	
55	**Mn**	1	**0.034**	ug/l	0.03	24.1	4500	45	P	
57	**Fe**	1	**2.383**	ug/l	2.38	20.8	450000	74	P	
59	**Co**	1	**0.016**	ug/l	0.02	79.0	4500	45	P	
60	**Ni**	1	**0.020**	ug/l	0.02	110.6	4500	45	P	
63	**Cu**	1	**0.085**	ug/l	0.09	23.8	4500	45	P	
66	**Zn**	1	**0.007**	ug/l	0.01	14.3	4500	74	P	
75	**As**	1	**-0.003**	ug/l	0.00	447.3	4500	45	P	
78	**Se**	1	**0.116**	ug/l	0.12	37.5	4500	45	P	
88	**Sr**	1	**0.022**	ug/l	0.02	42.8	4500	45	P	
95	**Mo**	1	**0.112**	ug/l	0.11	12.5	4500	74	P	
109	**Ag**	1	**0.013**	ug/l	0.01	86.8	4500	103	P	
111	**Cd**	1	**0.002**	ug/l	0.00	156.2	4500	103	P	
118	**Sn**	1	**0.186**	ug/l	0.19	21.0	4500	103	P	
123	**Sb**	1	**0.052**	ug/l	0.05	15.7	4500	103	P	
135	**Ba**	1	**0.021**	ug/l	0.02	111.1	4500	103	P	
200	**Hg**	1	**0.005**	ug/l	0.01	53.0	45	209	P	
205	**Tl**	1	**0.294**	ug/l	0.29	7.4	4500	165	P	
208	**Pb**	1	**0.018**	ug/l	0.02	117.2	4500	209	P	
238	**U**	1	**0.026**	ug/l	0.03	36.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62185	2.24	81580	**76.2**	30	-	125	
45	Sc	1	1471089	1.84	1568000	**93.8**	30	-	125	
74	Ge	1	4008431	1.27	3965000	**101.1**	30	-	125	
103	Rh	1	5925140	0.56	5756000	**102.9**	30	-	125	
165	Ho	1	2876912	1.45	2702000	**106.5**	30	-	125	
175	Lu	1	2526478	1.57	2349000	**107.6**	30	-	125	
209	Bi	1	3168313	2.10	2910000	**108.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\142SMPL.D\142SMPL.D#
Date Acquired: Sep 16 2011 01:30 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-12-A Vial Number: 4501
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.015**	ug/l	-0.08	57.6	900	6	P	
23	**Na**	1	**970.100**	ug/l	4,850.50	2.1	450000	6	A	
24	**Mg**	1	**40.370**	ug/l	201.85	0.3	450000	6	P	
27	**Al**	1	**6.912**	ug/l	34.56	4.4	450000	6	P	
31	**P**	1	**23.070**	ug/l	115.35	9.4	450000	6	P	
39	**K**	1	**107.700**	ug/l	538.50	2.4	450000	45	P	
44	**Ca**	1	**233.500**	ug/l	1,167.50	0.6	450000	45	P	
47	**Ti**	1	**0.115**	ug/l	0.57	18.4	4500	45	P	
51	**V**	1	**0.168**	ug/l	0.84	23.5	4500	45	P	
52	**Cr**	1	**0.191**	ug/l	0.96	13.2	4500	45	P	
55	**Mn**	1	**0.433**	ug/l	2.17	2.7	4500	45	P	
57	**Fe**	1	**41.540**	ug/l	207.70	1.6	450000	74	P	
59	**Co**	1	**0.011**	ug/l	0.05	6.7	4500	45	P	
60	**Ni**	1	**0.102**	ug/l	0.51	40.1	4500	45	P	
63	**Cu**	1	**0.429**	ug/l	2.15	9.8	4500	45	P	
66	**Zn**	1	**3.142**	ug/l	15.71	7.2	4500	74	P	
75	**As**	1	**27.380**	ug/l	136.90	1.2	4500	45	P	
78	**Se**	1	**0.099**	ug/l	0.49	59.5	4500	45	P	
88	**Sr**	1	**0.597**	ug/l	2.99	5.8	4500	45	P	
95	**Mo**	1	**0.058**	ug/l	0.29	6.9	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.03	26.5	4500	103	P	
111	**Cd**	1	**0.002**	ug/l	0.01	514.3	4500	103	P	
118	**Sn**	1	**0.177**	ug/l	0.88	18.1	4500	103	P	
123	**Sb**	1	**0.026**	ug/l	0.13	22.8	4500	103	P	
135	**Ba**	1	**0.043**	ug/l	0.21	21.7	4500	103	P	
200	**Hg**	1	**-0.001**	ug/l	-0.01	202.4	45	209	P	
205	**Tl**	1	**0.095**	ug/l	0.47	15.3	4500	165	P	
208	**Pb**	1	**0.038**	ug/l	0.19	13.3	4500	209	P	
238	**U**	1	**0.006**	ug/l	0.03	40.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57327	0.13	81580	**70.3**	30	-	125	
45	Sc	1	1426032	0.93	1568000	**90.9**	30	-	125	
74	Ge	1	4009153	0.61	3965000	**101.1**	30	-	125	
103	Rh	1	5833581	1.51	5756000	**101.3**	30	-	125	
165	Ho	1	2915532	0.53	2702000	**107.9**	30	-	125	
175	Lu	1	2553489	0.81	2349000	**108.7**	30	-	125	
209	Bi	1	3176229	1.21	2910000	**109.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\143SMPL.D\143SMPL.D#
Date Acquired: Sep 16 2011 01:35 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-13-A Vial Number: 4502
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.015**	ug/l	-0.07	60.8	900	6	P	
23	Na	1	**901.800**	ug/l	4,509.00	2.0	450000	6	A	
24	Mg	1	**305.800**	ug/l	1,529.00	1.5	450000	6	P	
27	Al	1	**9.916**	ug/l	49.58	3.7	450000	6	P	
31	P	1	**25.680**	ug/l	128.40	12.1	450000	6	P	
39	K	1	**40.870**	ug/l	204.35	8.0	450000	45	P	
44	Ca	1	**954.600**	ug/l	4,773.00	1.5	450000	45	P	
47	Ti	1	**0.676**	ug/l	3.38	11.0	4500	45	P	
51	V	1	**0.578**	ug/l	2.89	8.3	4500	45	P	
52	Cr	1	**0.247**	ug/l	1.23	3.4	4500	45	P	
55	Mn	1	**0.325**	ug/l	1.62	1.2	4500	45	P	
57	Fe	1	**6.201**	ug/l	31.01	1.9	450000	74	P	
59	Co	1	**0.008**	ug/l	0.04	22.5	4500	45	P	
60	Ni	1	**0.069**	ug/l	0.34	7.6	4500	45	P	
63	Cu	1	**0.056**	ug/l	0.28	42.9	4500	45	P	
66	Zn	1	**13.630**	ug/l	68.15	2.9	4500	74	P	
75	As	1	**20.020**	ug/l	100.10	0.9	4500	45	P	
78	Se	1	**0.133**	ug/l	0.66	106.3	4500	45	P	
88	Sr	1	**3.659**	ug/l	18.30	2.8	4500	45	P	
95	Mo	1	**0.048**	ug/l	0.24	24.9	4500	74	P	
109	Ag	1	**0.007**	ug/l	0.03	6.2	4500	103	P	
111	Cd	1	**-0.001**	ug/l	-0.01	602.0	4500	103	P	
118	Sn	1	**0.064**	ug/l	0.32	20.2	4500	103	P	
123	Sb	1	**0.018**	ug/l	0.09	41.2	4500	103	P	
135	Ba	1	**0.075**	ug/l	0.37	23.1	4500	103	P	
200	Hg	1	**-0.005**	ug/l	-0.02	47.5	45	209	P	
205	Tl	1	**0.046**	ug/l	0.23	26.3	4500	165	P	
208	Pb	1	**0.127**	ug/l	0.64	0.7	4500	209	P	
238	U	1	**0.001**	ug/l	0.01	70.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56183	2.06	81580	**68.9**	30	-	125	
45	Sc	1	1402150	2.06	1568000	**89.4**	30	-	125	
74	Ge	1	3903523	2.25	3965000	**98.4**	30	-	125	
103	Rh	1	5784196	0.47	5756000	**100.5**	30	-	125	
165	Ho	1	2875481	1.32	2702000	**106.4**	30	-	125	
175	Lu	1	2520230	1.43	2349000	**107.3**	30	-	125	
209	Bi	1	3159938	0.57	2910000	**108.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\144SMPL.D\144SMPL.D#
Date Acquired: Sep 16 2011 01:39 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-14-A Vial Number: 4503
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.006**	ug/l	-0.03	6.1	900	6	P	
23	**Na**	1	**1149.000**	ug/l	5,745.00	4.4	450000	6	A	
24	**Mg**	1	**184.500**	ug/l	922.50	0.9	450000	6	P	
27	**Al**	1	**9.839**	ug/l	49.20	1.5	450000	6	P	
31	**P**	1	**23.490**	ug/l	117.45	11.3	450000	6	P	
39	**K**	1	**234.700**	ug/l	1,173.50	0.4	450000	45	P	
44	**Ca**	1	**636.300**	ug/l	3,181.50	0.3	450000	45	P	
47	**Ti**	1	**0.654**	ug/l	3.27	15.1	4500	45	P	
51	**V**	1	**0.374**	ug/l	1.87	1.4	4500	45	P	
52	**Cr**	1	**0.256**	ug/l	1.28	2.7	4500	45	P	
55	**Mn**	1	**0.325**	ug/l	1.62	8.9	4500	45	P	
57	**Fe**	1	**6.031**	ug/l	30.16	4.3	450000	74	P	
59	**Co**	1	**0.011**	ug/l	0.06	8.9	4500	45	P	
60	**Ni**	1	**0.084**	ug/l	0.42	16.6	4500	45	P	
63	**Cu**	1	**0.045**	ug/l	0.23	3.0	4500	45	P	
66	**Zn**	1	**12.250**	ug/l	61.25	3.4	4500	74	P	
75	**As**	1	**25.410**	ug/l	127.05	1.6	4500	45	P	
78	**Se**	1	**0.075**	ug/l	0.37	16.2	4500	45	P	
88	**Sr**	1	**2.220**	ug/l	11.10	3.6	4500	45	P	
95	**Mo**	1	**0.060**	ug/l	0.30	12.6	4500	74	P	
109	**Ag**	1	**0.016**	ug/l	0.08	7.4	4500	103	P	
111	**Cd**	1	**-0.003**	ug/l	-0.01	433.6	4500	103	P	
118	**Sn**	1	**0.056**	ug/l	0.28	34.2	4500	103	P	
123	**Sb**	1	**0.026**	ug/l	0.13	25.1	4500	103	P	
135	**Ba**	1	**0.112**	ug/l	0.56	21.8	4500	103	P	
200	**Hg**	1	**-0.008**	ug/l	-0.04	19.0	45	209	P	
205	**Tl**	1	**0.038**	ug/l	0.19	31.8	4500	165	P	
208	**Pb**	1	**0.104**	ug/l	0.52	14.3	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.01	25.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57987	2.12	81580	**71.1**	30	-	125	
45	Sc	1	1435323	1.27	1568000	**91.5**	30	-	125	
74	Ge	1	3945226	0.78	3965000	**99.5**	30	-	125	
103	Rh	1	5827574	1.09	5756000	**101.2**	30	-	125	
165	Ho	1	2936468	2.37	2702000	**108.7**	30	-	125	
175	Lu	1	2542052	2.11	2349000	**108.2**	30	-	125	
209	Bi	1	3187534	0.55	2910000	**109.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\145SMPL.D\145SMPL.D#
Date Acquired: Sep 16 2011 01:43 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-15-A Vial Number: 4504
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.015**	ug/l	-0.08	43.4	900	6	P	
23	**Na**	1	**947.500**	ug/l	4,737.50	1.8	450000	6	A	
24	**Mg**	1	**60.380**	ug/l	301.90	0.8	450000	6	P	
27	**Al**	1	**7.140**	ug/l	35.70	5.8	450000	6	P	
31	**P**	1	**26.770**	ug/l	133.85	9.2	450000	6	P	
39	**K**	1	**134.100**	ug/l	670.50	6.0	450000	45	P	
44	**Ca**	1	**252.000**	ug/l	1,260.00	3.0	450000	45	P	
47	**Ti**	1	**0.487**	ug/l	2.44	9.0	4500	45	P	
51	**V**	1	**0.258**	ug/l	1.29	3.5	4500	45	P	
52	**Cr**	1	**0.203**	ug/l	1.02	13.0	4500	45	P	
55	**Mn**	1	**0.186**	ug/l	0.93	7.2	4500	45	P	
57	**Fe**	1	**2.958**	ug/l	14.79	9.8	450000	74	P	
59	**Co**	1	**0.007**	ug/l	0.03	13.2	4500	45	P	
60	**Ni**	1	**0.044**	ug/l	0.22	13.9	4500	45	P	
63	**Cu**	1	**0.001**	ug/l	0.01	1080.6	4500	45	P	
66	**Zn**	1	**4.544**	ug/l	22.72	6.7	4500	74	P	
75	**As**	1	**26.720**	ug/l	133.60	3.2	4500	45	P	
78	**Se**	1	**0.078**	ug/l	0.39	30.8	4500	45	P	
88	**Sr**	1	**0.755**	ug/l	3.77	4.7	4500	45	P	
95	**Mo**	1	**0.033**	ug/l	0.16	51.1	4500	74	P	
109	**Ag**	1	**0.011**	ug/l	0.06	6.1	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.01	334.9	4500	103	P	
118	**Sn**	1	**0.050**	ug/l	0.25	22.0	4500	103	P	
123	**Sb**	1	**0.014**	ug/l	0.07	56.9	4500	103	P	
135	**Ba**	1	**0.033**	ug/l	0.16	6.7	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.03	53.0	45	209	P	
205	**Tl**	1	**0.026**	ug/l	0.13	53.4	4500	165	P	
208	**Pb**	1	**0.031**	ug/l	0.16	64.6	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	228.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57508	1.60	81580	**70.5**	30	-	125	
45	Sc	1	1436072	2.56	1568000	**91.6**	30	-	125	
74	Ge	1	3976612	0.94	3965000	**100.3**	30	-	125	
103	Rh	1	5891836	0.65	5756000	**102.4**	30	-	125	
165	Ho	1	2930970	1.12	2702000	**108.5**	30	-	125	
175	Lu	1	2544323	1.19	2349000	**108.3**	30	-	125	
209	Bi	1	3206101	1.99	2910000	**110.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\146SMPL.D\146SMPL.D#
Date Acquired: Sep 16 2011 01:48 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-16-A Vial Number: 4505
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.007**	ug/l	-0.04	127.4	900	6	P	
23	**Na**	1	**1350.000**	ug/l	6,750.00	2.6	450000	6	A	
24	**Mg**	1	**409.100**	ug/l	2,045.50	1.4	450000	6	P	
27	**Al**	1	**11.910**	ug/l	59.55	4.9	450000	6	P	
31	**P**	1	**24.700**	ug/l	123.50	7.7	450000	6	P	
39	**K**	1	**68.640**	ug/l	343.20	9.3	450000	45	P	
44	**Ca**	1	**1170.000**	ug/l	5,850.00	2.2	450000	45	P	
47	**Ti**	1	**0.733**	ug/l	3.66	8.0	4500	45	P	
51	**V**	1	**0.824**	ug/l	4.12	8.7	4500	45	P	
52	**Cr**	1	**0.282**	ug/l	1.41	10.1	4500	45	P	
55	**Mn**	1	**0.459**	ug/l	2.30	2.5	4500	45	P	
57	**Fe**	1	**12.300**	ug/l	61.50	7.6	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.04	26.4	4500	45	P	
60	**Ni**	1	**0.079**	ug/l	0.40	2.9	4500	45	P	
63	**Cu**	1	**0.118**	ug/l	0.59	29.1	4500	45	P	
66	**Zn**	1	**17.810**	ug/l	89.05	2.6	4500	74	P	
75	**As**	1	**18.070**	ug/l	90.35	3.0	4500	45	P	
78	**Se**	1	**0.075**	ug/l	0.37	70.7	4500	45	P	
88	**Sr**	1	**4.843**	ug/l	24.22	2.7	4500	45	P	
95	**Mo**	1	**0.035**	ug/l	0.18	22.2	4500	74	P	
109	**Ag**	1	**0.012**	ug/l	0.06	21.1	4500	103	P	
111	**Cd**	1	**0.003**	ug/l	0.02	160.0	4500	103	P	
118	**Sn**	1	**0.063**	ug/l	0.32	20.8	4500	103	P	
123	**Sb**	1	**0.017**	ug/l	0.09	24.6	4500	103	P	
135	**Ba**	1	**0.157**	ug/l	0.78	28.6	4500	103	P	
200	**Hg**	1	**-0.005**	ug/l	-0.03	23.0	45	209	P	
205	**Tl**	1	**0.020**	ug/l	0.10	51.7	4500	165	P	
208	**Pb**	1	**0.165**	ug/l	0.82	4.4	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.00	112.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	55549	1.25	81580	**68.1**	30 - 125	
45	Sc	1	1391911	3.21	1568000	**88.8**	30 - 125	
74	Ge	1	3872894	1.15	3965000	**97.7**	30 - 125	
103	Rh	1	5729766	1.48	5756000	**99.5**	30 - 125	
165	Ho	1	2867068	1.16	2702000	**106.1**	30 - 125	
175	Lu	1	2550817	2.57	2349000	**108.6**	30 - 125	
209	Bi	1	3125213	1.19	2910000	**107.4**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\147SMPL.D\147SMPL.D#
Date Acquired: Sep 16 2011 01:52 am Acq. Method: 00He_ALL.M
Sample Name: 580-28467-A-1-A Vial Number: 4506
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.009**	ug/l	-0.05	36.4	900	6	P	
23	**Na**	1	**4380.000**	ug/l	21,900.00	2.6	450000	6	A	
24	**Mg**	1	**211.800**	ug/l	1,059.00	1.0	450000	6	P	
27	**Al**	1	**2090.000**	ug/l	10,450.00	1.7	450000	6	M	
31	**P**	1	**380.300**	ug/l	1,901.50	3.0	450000	6	P	
39	**K**	1	**102.200**	ug/l	511.00	5.5	450000	45	P	
44	**Ca**	1	**2041.000**	ug/l	10,205.00	2.0	450000	45	P	
47	**Ti**	1	**1.679**	ug/l	8.40	1.5	4500	45	P	
51	**V**	1	**3.682**	ug/l	18.41	2.5	4500	45	P	
52	**Cr**	1	**13.970**	ug/l	69.85	3.9	4500	45	P	
55	**Mn**	1	**4.841**	ug/l	24.21	0.9	4500	45	P	
57	**Fe**	1	**1890.000**	ug/l	9,450.00	0.6	450000	74	P	
59	**Co**	1	**0.243**	ug/l	1.21	1.1	4500	45	P	
60	**Ni**	1	**1.490**	ug/l	7.45	5.6	4500	45	P	
63	**Cu**	1	**12.580**	ug/l	62.90	2.6	4500	45	P	
66	**Zn**	1	**2.280**	ug/l	11.40	4.8	4500	74	P	
75	**As**	1	**0.171**	ug/l	0.85	12.3	4500	45	P	
78	**Se**	1	**0.066**	ug/l	0.33	94.7	4500	45	P	
88	**Sr**	1	**6.201**	ug/l	31.01	2.1	4500	45	P	
95	**Mo**	1	**0.322**	ug/l	1.61	1.6	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	75.2	4500	103	P	
111	**Cd**	1	**0.009**	ug/l	0.04	74.2	4500	103	P	
118	**Sn**	1	**0.091**	ug/l	0.46	17.2	4500	103	P	
123	**Sb**	1	**0.033**	ug/l	0.16	11.9	4500	103	P	
135	**Ba**	1	**0.733**	ug/l	3.66	5.7	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.02	51.0	45	209	P	
205	**Tl**	1	**0.016**	ug/l	0.08	45.9	4500	165	P	
208	**Pb**	1	**0.116**	ug/l	0.58	18.6	4500	209	P	
238	**U**	1	**0.011**	ug/l	0.06	17.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	55835	1.82	81580	**68.4**	30	-	125	
45	Sc	1	1416561	2.54	1568000	**90.3**	30	-	125	
74	Ge	1	3906009	0.59	3965000	**98.5**	30	-	125	
103	Rh	1	5757702	0.81	5756000	**100.0**	30	-	125	
165	Ho	1	2929773	1.69	2702000	**108.4**	30	-	125	
175	Lu	1	2544939	2.08	2349000	**108.3**	30	-	125	
209	Bi	1	3128577	1.63	2910000	**107.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\148SMPL.D\148SMPL.D#
Date Acquired: Sep 16 2011 01:57 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.430**	ug/l	51.43	1.0	900	6	P	
23	**Na**	1	**5197.000**	ug/l	5,197.00	1.0	450000	6	A	
24	**Mg**	1	**5204.000**	ug/l	5,204.00	2.7	450000	6	A	
27	**Al**	1	**542.600**	ug/l	542.60	0.9	450000	6	P	
31	**P**	1	**5271.000**	ug/l	5,271.00	0.4	450000	6	P	
39	**K**	1	**4508.000**	ug/l	4,508.00	0.7	450000	45	A	
44	**Ca**	1	**4686.000**	ug/l	4,686.00	1.2	450000	45	P	
47	**Ti**	1	**47.490**	ug/l	47.49	0.9	4500	45	P	
51	**V**	1	**48.510**	ug/l	48.51	1.7	4500	45	P	
52	**Cr**	1	**49.150**	ug/l	49.15	1.1	4500	45	P	
55	**Mn**	1	**49.920**	ug/l	49.92	1.5	4500	45	P	
57	**Fe**	1	**4742.000**	ug/l	4,742.00	0.3	450000	74	A	
59	**Co**	1	**48.460**	ug/l	48.46	2.6	4500	45	P	
60	**Ni**	1	**50.280**	ug/l	50.28	2.0	4500	45	P	
63	**Cu**	1	**51.760**	ug/l	51.76	1.9	4500	45	P	
66	**Zn**	1	**46.910**	ug/l	46.91	2.0	4500	74	P	
75	**As**	1	**52.090**	ug/l	52.09	2.4	4500	45	P	
78	**Se**	1	**52.840**	ug/l	52.84	2.1	4500	45	P	
88	**Sr**	1	**52.650**	ug/l	52.65	1.6	4500	45	P	
95	**Mo**	1	**48.390**	ug/l	48.39	0.8	4500	74	P	
109	**Ag**	1	**46.860**	ug/l	46.86	1.5	4500	103	P	
111	**Cd**	1	**48.310**	ug/l	48.31	1.3	4500	103	P	
118	**Sn**	1	**47.400**	ug/l	47.40	1.9	4500	103	P	
123	**Sb**	1	**48.360**	ug/l	48.36	1.8	4500	103	P	
135	**Ba**	1	**47.800**	ug/l	47.80	2.7	4500	103	P	
200	**Hg**	1	**2.382**	ug/l	2.38	0.5	45	209	P	
205	**Tl**	1	**47.260**	ug/l	47.26	2.1	4500	165	A	
208	**Pb**	1	**47.150**	ug/l	47.15	2.1	4500	209	P	
238	**U**	1	**49.030**	ug/l	49.03	1.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63310	0.87	81580	**77.6**	30	-	125	
45	Sc	1	1503765	2.39	1568000	**95.9**	30	-	125	
74	Ge	1	4037971	1.18	3965000	**101.8**	30	-	125	
103	Rh	1	5742700	1.72	5756000	**99.8**	30	-	125	
165	Ho	1	2918614	2.08	2702000	**108.0**	30	-	125	
175	Lu	1	2568755	1.49	2349000	**109.4**	30	-	125	
209	Bi	1	3071836	1.28	2910000	**105.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\149SMPL.D\149SMPL.D#
Date Acquired: Sep 16 2011 02:01 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.000**	ug/l	0.00	4044.3	900	6	P	
23	**Na**	1	**36.660**	ug/l	36.66	4.7	450000	6	P	
24	**Mg**	1	**2.140**	ug/l	2.14	10.0	450000	6	P	
27	**Al**	1	**2.650**	ug/l	2.65	134.3	450000	6	P	
31	**P**	1	**3.190**	ug/l	3.19	100.4	450000	6	P	
39	**K**	1	**-17.360**	ug/l	-17.36	11.6	450000	45	P	
44	**Ca**	1	**1.743**	ug/l	1.74	23.6	450000	45	P	
47	**Ti**	1	**0.037**	ug/l	0.04	66.2	4500	45	P	
51	**V**	1	**-0.275**	ug/l	-0.28	8.9	4500	45	P	
52	**Cr**	1	**0.023**	ug/l	0.02	16.1	4500	45	P	
55	**Mn**	1	**0.046**	ug/l	0.05	14.8	4500	45	P	
57	**Fe**	1	**2.737**	ug/l	2.74	13.6	450000	74	P	
59	**Co**	1	**0.022**	ug/l	0.02	17.9	4500	45	P	
60	**Ni**	1	**0.016**	ug/l	0.02	80.4	4500	45	P	
63	**Cu**	1	**0.110**	ug/l	0.11	16.2	4500	45	P	
66	**Zn**	1	**0.007**	ug/l	0.01	67.2	4500	74	P	
75	**As**	1	**-0.013**	ug/l	-0.01	62.2	4500	45	P	
78	**Se**	1	**0.077**	ug/l	0.08	118.2	4500	45	P	
88	**Sr**	1	**0.029**	ug/l	0.03	19.8	4500	45	P	
95	**Mo**	1	**0.096**	ug/l	0.10	16.5	4500	74	P	
109	**Ag**	1	**0.018**	ug/l	0.02	10.2	4500	103	P	
111	**Cd**	1	**0.020**	ug/l	0.02	52.6	4500	103	P	
118	**Sn**	1	**0.159**	ug/l	0.16	20.1	4500	103	P	
123	**Sb**	1	**0.056**	ug/l	0.06	22.2	4500	103	P	
135	**Ba**	1	**0.012**	ug/l	0.01	17.5	4500	103	P	
200	**Hg**	1	**0.007**	ug/l	0.01	60.8	45	209	P	
205	**Tl**	1	**0.293**	ug/l	0.29	7.9	4500	165	P	
208	**Pb**	1	**0.015**	ug/l	0.01	56.9	4500	209	P	
238	**U**	1	**0.029**	ug/l	0.03	13.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63023	0.85	81580	**77.3**	30	-	125	
45	Sc	1	1478181	2.12	1568000	**94.3**	30	-	125	
74	Ge	1	4033524	0.19	3965000	**101.7**	30	-	125	
103	Rh	1	5890401	0.83	5756000	**102.3**	30	-	125	
165	Ho	1	2955115	2.31	2702000	**109.4**	30	-	125	
175	Lu	1	2557516	0.92	2349000	**108.9**	30	-	125	
209	Bi	1	3209160	1.25	2910000	**110.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\150SMPL.D\150SMPL.D#
Date Acquired: Sep 16 2011 02:05 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95423/16-A Vial Number: 2401
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.017**	ug/l	-0.09	30.3	900	6	P	
23	**Na**	1	**35.490**	ug/l	177.45	1.9	450000	6	P	
24	**Mg**	1	**0.865**	ug/l	4.33	12.5	450000	6	P	
27	**Al**	1	**1.401**	ug/l	7.01	10.2	450000	6	P	
31	**P**	1	**-1.220**	ug/l	-6.10	135.2	450000	6	P	
39	**K**	1	**-19.180**	ug/l	-95.90	13.3	450000	45	P	
44	**Ca**	1	**3.277**	ug/l	16.39	5.0	450000	45	P	
47	**Ti**	1	**0.033**	ug/l	0.16	10.1	4500	45	P	
51	**V**	1	**-0.234**	ug/l	-1.17	9.1	4500	45	P	
52	**Cr**	1	**0.015**	ug/l	0.08	70.8	4500	45	P	
55	**Mn**	1	**0.080**	ug/l	0.40	7.3	4500	45	P	
57	**Fe**	1	**1.719**	ug/l	8.60	24.4	450000	74	P	
59	**Co**	1	**0.006**	ug/l	0.03	20.4	4500	45	P	
60	**Ni**	1	**0.548**	ug/l	2.74	1.8	4500	45	P	
63	**Cu**	1	**0.122**	ug/l	0.61	13.9	4500	45	P	
66	**Zn**	1	**0.222**	ug/l	1.11	10.0	4500	74	P	
75	**As**	1	**0.002**	ug/l	0.01	829.8	4500	45	P	
78	**Se**	1	**0.107**	ug/l	0.53	96.6	4500	45	P	
88	**Sr**	1	**0.038**	ug/l	0.19	10.8	4500	45	P	
95	**Mo**	1	**0.034**	ug/l	0.17	59.6	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.01	45.8	4500	103	P	
111	**Cd**	1	**0.006**	ug/l	0.03	83.2	4500	103	P	
118	**Sn**	1	**0.064**	ug/l	0.32	15.8	4500	103	P	
123	**Sb**	1	**0.022**	ug/l	0.11	45.4	4500	103	P	
135	**Ba**	1	**0.049**	ug/l	0.25	21.2	4500	103	P	
200	**Hg**	1	**0.003**	ug/l	0.02	112.0	45	209	P	
205	**Tl**	1	**0.091**	ug/l	0.45	14.1	4500	165	P	
208	**Pb**	1	**0.003**	ug/l	0.02	260.9	4500	209	P	
238	**U**	1	**0.006**	ug/l	0.03	26.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62737	1.22	81580	**76.9**	30	-	125	
45	Sc	1	1475617	2.44	1568000	**94.1**	30	-	125	
74	Ge	1	4041961	1.26	3965000	**101.9**	30	-	125	
103	Rh	1	5861356	1.25	5756000	**101.8**	30	-	125	
165	Ho	1	2904096	1.21	2702000	**107.5**	30	-	125	
175	Lu	1	2555046	0.20	2349000	**108.8**	30	-	125	
209	Bi	1	3204584	1.45	2910000	**110.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\151SMPL.D\151SMPL.D#
Date Acquired: Sep 16 2011 02:10 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-27-A Vial Number: 2402
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.009**	ug/l	0.05	90.7	900	6	P	
23	**Na**	1	**1303.000**	ug/l	6,515.00	2.3	450000	6	A	
24	**Mg**	1	**57.790**	ug/l	288.95	1.0	450000	6	P	
27	**Al**	1	**37.350**	ug/l	186.75	3.0	450000	6	P	
31	**P**	1	**27.850**	ug/l	139.25	4.6	450000	6	P	
39	**K**	1	**76.650**	ug/l	383.25	5.9	450000	45	P	
44	**Ca**	1	**436.200**	ug/l	2,181.00	1.5	450000	45	P	
47	**Ti**	1	**0.981**	ug/l	4.91	4.8	4500	45	P	
51	**V**	1	**0.448**	ug/l	2.24	8.3	4500	45	P	
52	**Cr**	1	**0.475**	ug/l	2.38	5.6	4500	45	P	
55	**Mn**	1	**1.833**	ug/l	9.17	3.3	4500	45	P	
57	**Fe**	1	**28.820**	ug/l	144.10	3.4	450000	74	P	
59	**Co**	1	**0.219**	ug/l	1.09	0.7	4500	45	P	
60	**Ni**	1	**0.388**	ug/l	1.94	5.8	4500	45	P	
63	**Cu**	1	**0.421**	ug/l	2.10	6.9	4500	45	P	
66	**Zn**	1	**10.790**	ug/l	53.95	0.9	4500	74	P	
75	**As**	1	**50.070**	ug/l	250.35	2.4	4500	45	P	
78	**Se**	1	**0.966**	ug/l	4.83	8.9	4500	45	P	
88	**Sr**	1	**0.839**	ug/l	4.20	1.3	4500	45	P	
95	**Mo**	1	**0.047**	ug/l	0.24	15.1	4500	74	P	
109	**Ag**	1	**0.023**	ug/l	0.12	10.1	4500	103	P	
111	**Cd**	1	**0.014**	ug/l	0.07	70.3	4500	103	P	
118	**Sn**	1	**0.112**	ug/l	0.56	22.5	4500	103	P	
123	**Sb**	1	**0.212**	ug/l	1.06	1.3	4500	103	P	
135	**Ba**	1	**0.846**	ug/l	4.23	3.5	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.02	14.5	45	209	P	
205	**Tl**	1	**0.671**	ug/l	3.35	9.1	4500	165	P	
208	**Pb**	1	**0.735**	ug/l	3.67	2.0	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.01	11.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57734	0.73	81580	**70.8**	30	-	125	
45	Sc	1	1424084	2.13	1568000	**90.8**	30	-	125	
74	Ge	1	3941574	1.70	3965000	**99.4**	30	-	125	
103	Rh	1	5828531	1.39	5756000	**101.3**	30	-	125	
165	Ho	1	2926170	1.03	2702000	**108.3**	30	-	125	
175	Lu	1	2578879	1.42	2349000	**109.8**	30	-	125	
209	Bi	1	3203398	1.80	2910000	**110.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\152SMPL.D\152SMPL.D#
Date Acquired: Sep 16 2011 02:14 am Acq. Method: 00He_ALL.M
Sample Name: 580-28496-B-10-B SD Vial Number: 2403
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **25.00** Final Dil Factor: **25.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.016**	ug/l	-0.39	19.2	900	6	P	
23	**Na**	1	**41.090**	ug/l	1,027.25	3.0	450000	6	P	
24	**Mg**	1	**0.681**	ug/l	17.03	13.9	450000	6	P	
27	**Al**	1	**0.270**	ug/l	6.75	38.3	450000	6	P	
31	**P**	1	**2.530**	ug/l	63.25	80.1	450000	6	P	
39	**K**	1	**-22.490**	ug/l	-562.25	5.1	450000	45	P	
44	**Ca**	1	**1.385**	ug/l	34.63	13.6	450000	45	P	
47	**Ti**	1	**0.025**	ug/l	0.63	23.1	4500	45	P	
51	**V**	1	**-0.175**	ug/l	-4.36	16.4	4500	45	P	
52	**Cr**	1	**0.013**	ug/l	0.33	103.3	4500	45	P	
55	**Mn**	1	**0.050**	ug/l	1.25	15.1	4500	45	P	
57	**Fe**	1	**0.492**	ug/l	12.30	28.9	450000	74	P	
59	**Co**	1	**0.001**	ug/l	0.02	82.1	4500	45	P	
60	**Ni**	1	**0.013**	ug/l	0.32	38.4	4500	45	P	
63	**Cu**	1	**-0.009**	ug/l	-0.22	156.5	4500	45	P	
66	**Zn**	1	**0.182**	ug/l	4.55	15.2	4500	74	P	
75	**As**	1	**0.001**	ug/l	0.03	1416.5	4500	45	P	
78	**Se**	1	**0.126**	ug/l	3.15	62.1	4500	45	P	
88	**Sr**	1	**0.006**	ug/l	0.16	27.9	4500	45	P	
95	**Mo**	1	**0.011**	ug/l	0.28	76.1	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	-0.02	74.4	4500	103	P	
111	**Cd**	1	**-0.009**	ug/l	-0.23	55.9	4500	103	P	
118	**Sn**	1	**0.014**	ug/l	0.35	48.4	4500	103	P	
123	**Sb**	1	**0.008**	ug/l	0.20	29.3	4500	103	P	
135	**Ba**	1	**0.003**	ug/l	0.07	250.8	4500	103	P	
200	**Hg**	1	**-0.008**	ug/l	-0.20	8.8	45	209	P	
205	**Tl**	1	**0.032**	ug/l	0.80	15.8	4500	165	P	
208	**Pb**	1	**0.003**	ug/l	0.08	281.4	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.03	75.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61400	1.01	81580	**75.3**	30	-	125	
45	Sc	1	1476582	0.52	1568000	**94.2**	30	-	125	
74	Ge	1	4007939	1.69	3965000	**101.1**	30	-	125	
103	Rh	1	5977129	0.78	5756000	**103.8**	30	-	125	
165	Ho	1	2951309	1.39	2702000	**109.2**	30	-	125	
175	Lu	1	2587379	1.25	2349000	**110.1**	30	-	125	
209	Bi	1	3228524	0.33	2910000	**110.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\153SMPL.D\153SMPL.D#
Date Acquired: Sep 16 2011 02:19 am Acq. Method: 00He_ALL.M
Sample Name: 580-28496-B-10-B Vial Number: 2404
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.04	39.0	900	6	P	
23	**Na**	1	**56.850**	ug/l	284.25	7.6	450000	6	P	
24	**Mg**	1	**2.678**	ug/l	13.39	10.3	450000	6	P	
27	**Al**	1	**2.439**	ug/l	12.20	5.5	450000	6	P	
31	**P**	1	**22.210**	ug/l	111.05	20.8	450000	6	P	
39	**K**	1	**-18.170**	ug/l	-90.85	12.0	450000	45	P	
44	**Ca**	1	**7.651**	ug/l	38.26	9.2	450000	45	P	
47	**Ti**	1	**0.046**	ug/l	0.23	46.6	4500	45	P	
51	**V**	1	**0.076**	ug/l	0.38	37.1	4500	45	P	
52	**Cr**	1	**0.073**	ug/l	0.36	22.5	4500	45	P	
55	**Mn**	1	**0.201**	ug/l	1.01	0.7	4500	45	P	
57	**Fe**	1	**1.947**	ug/l	9.74	11.0	450000	74	P	
59	**Co**	1	**0.003**	ug/l	0.02	71.1	4500	45	P	
60	**Ni**	1	**0.069**	ug/l	0.34	23.4	4500	45	P	
63	**Cu**	1	**-0.032**	ug/l	-0.16	63.6	4500	45	P	
66	**Zn**	1	**0.658**	ug/l	3.29	9.2	4500	74	P	
75	**As**	1	**0.032**	ug/l	0.16	26.5	4500	45	P	
78	**Se**	1	**0.025**	ug/l	0.13	394.6	4500	45	P	
88	**Sr**	1	**0.028**	ug/l	0.14	16.5	4500	45	P	
95	**Mo**	1	**0.019**	ug/l	0.10	24.4	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	276.0	4500	103	P	
111	**Cd**	1	**-0.003**	ug/l	-0.01	165.1	4500	103	P	
118	**Sn**	1	**0.047**	ug/l	0.24	20.7	4500	103	P	
123	**Sb**	1	**0.027**	ug/l	0.13	17.8	4500	103	P	
135	**Ba**	1	**0.048**	ug/l	0.24	24.7	4500	103	P	
200	**Hg**	1	**-0.009**	ug/l	-0.04	31.6	45	209	P	
205	**Tl**	1	**0.022**	ug/l	0.11	59.3	4500	165	P	
208	**Pb**	1	**0.017**	ug/l	0.09	75.7	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	67.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57779	2.53	81580	**70.8**	30	-	125	
45	Sc	1	1415185	0.90	1568000	**90.3**	30	-	125	
74	Ge	1	3930350	0.52	3965000	**99.1**	30	-	125	
103	Rh	1	5832414	0.88	5756000	**101.3**	30	-	125	
165	Ho	1	2945145	1.03	2702000	**109.0**	30	-	125	
175	Lu	1	2579301	1.16	2349000	**109.8**	30	-	125	
209	Bi	1	3237803	0.63	2910000	**111.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\154SMPL.D\154SMPL.D#
Date Acquired: Sep 16 2011 02:23 am Acq. Method: 00He_ALL.M
Sample Name: 580-28496-B-10-C DU Vial Number: 2405
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.010**	ug/l	-0.05	87.4	900	6	P	
23	**Na**	1	**59.440**	ug/l	297.20	6.5	450000	6	P	
24	**Mg**	1	**2.637**	ug/l	13.19	6.7	450000	6	P	
27	**Al**	1	**2.330**	ug/l	11.65	8.5	450000	6	P	
31	**P**	1	**23.190**	ug/l	115.95	9.7	450000	6	P	
39	**K**	1	**-17.670**	ug/l	-88.35	8.1	450000	45	P	
44	**Ca**	1	**7.715**	ug/l	38.58	2.5	450000	45	P	
47	**Ti**	1	**0.035**	ug/l	0.18	56.8	4500	45	P	
51	**V**	1	**0.098**	ug/l	0.49	19.3	4500	45	P	
52	**Cr**	1	**0.074**	ug/l	0.37	25.6	4500	45	P	
55	**Mn**	1	**0.226**	ug/l	1.13	2.6	4500	45	P	
57	**Fe**	1	**1.704**	ug/l	8.52	23.8	450000	74	P	
59	**Co**	1	**0.001**	ug/l	0.01	69.7	4500	45	P	
60	**Ni**	1	**0.072**	ug/l	0.36	18.4	4500	45	P	
63	**Cu**	1	**-0.033**	ug/l	-0.16	17.3	4500	45	P	
66	**Zn**	1	**0.657**	ug/l	3.28	3.7	4500	74	P	
75	**As**	1	**0.036**	ug/l	0.18	36.9	4500	45	P	
78	**Se**	1	**0.003**	ug/l	0.02	2338.6	4500	45	P	
88	**Sr**	1	**0.026**	ug/l	0.13	46.1	4500	45	P	
95	**Mo**	1	**0.018**	ug/l	0.09	13.1	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	245.3	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.01	468.1	4500	103	P	
118	**Sn**	1	**0.047**	ug/l	0.24	11.5	4500	103	P	
123	**Sb**	1	**0.022**	ug/l	0.11	38.2	4500	103	P	
135	**Ba**	1	**0.051**	ug/l	0.25	22.4	4500	103	P	
200	**Hg**	1	**-0.009**	ug/l	-0.05	9.9	45	209	P	
205	**Tl**	1	**0.014**	ug/l	0.07	20.3	4500	165	P	
208	**Pb**	1	**0.019**	ug/l	0.09	31.1	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	375.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57509	2.08	81580	**70.5**	30	-	125	
45	Sc	1	1402607	1.62	1568000	**89.5**	30	-	125	
74	Ge	1	3909319	1.75	3965000	**98.6**	30	-	125	
103	Rh	1	5748885	0.67	5756000	**99.9**	30	-	125	
165	Ho	1	2929873	0.67	2702000	**108.4**	30	-	125	
175	Lu	1	2555828	1.81	2349000	**108.8**	30	-	125	
209	Bi	1	3214503	0.80	2910000	**110.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\155SMPL.D\155SMPL.D#
Date Acquired: Sep 16 2011 02:27 am Acq. Method: 00He_ALL.M
Sample Name: 580-28496-B-10-D MS Vial Number: 2406
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.232**	ug/l	111.60	5.3	900	6	P	
23	**Na**	1	**524.900**	ug/l	26,245.00	3.9	450000	6	P	
24	**Mg**	1	**488.400**	ug/l	24,420.00	3.8	450000	6	P	
27	**Al**	1	**114.000**	ug/l	5,700.00	2.4	450000	6	P	
31	**P**	1	**461.300**	ug/l	23,065.00	3.2	450000	6	P	
39	**K**	1	**391.000**	ug/l	19,550.00	5.2	450000	45	P	
44	**Ca**	1	**423.400**	ug/l	21,170.00	4.9	450000	45	P	
47	**Ti**	1	**102.700**	ug/l	5,135.00	4.5	4500	45	P	
51	**V**	1	**21.790**	ug/l	1,089.50	4.2	4500	45	P	
52	**Cr**	1	**8.941**	ug/l	447.05	4.2	4500	45	P	
55	**Mn**	1	**22.790**	ug/l	1,139.50	5.7	4500	45	P	
57	**Fe**	1	**451.400**	ug/l	22,570.00	4.3	450000	74	P	
59	**Co**	1	**22.210**	ug/l	1,110.50	4.1	4500	45	P	
60	**Ni**	1	**23.120**	ug/l	1,156.00	4.4	4500	45	P	
63	**Cu**	1	**11.980**	ug/l	599.00	4.4	4500	45	P	
66	**Zn**	1	**21.400**	ug/l	1,070.00	2.9	4500	74	P	
75	**As**	1	**96.310**	ug/l	4,815.50	4.3	4500	45	P	
78	**Se**	1	**95.140**	ug/l	4,757.00	3.8	4500	45	P	
88	**Sr**	1	**-0.008**	ug/l	-0.42	121.4	4500	45	P	
95	**Mo**	1	**109.700**	ug/l	5,485.00	3.4	4500	74	P	
109	**Ag**	1	**12.780**	ug/l	639.00	5.8	4500	103	P	
111	**Cd**	1	**2.188**	ug/l	109.40	8.3	4500	103	P	
118	**Sn**	1	**106.300**	ug/l	5,315.00	6.4	4500	103	P	
123	**Sb**	1	**64.920**	ug/l	3,246.00	5.6	4500	103	P	
135	**Ba**	1	**85.390**	ug/l	4,269.50	5.8	4500	103	P	
200	**Hg**	1	**1.031**	ug/l	51.55	3.4	45	209	P	
205	**Tl**	1	**87.850**	ug/l	4,392.50	7.3	4500	165	A	
208	**Pb**	1	**20.970**	ug/l	1,048.50	3.4	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	1613.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59446	4.26	81580	**72.9**	30	-	125	
45	Sc	1	1438049	4.73	1568000	**91.7**	30	-	125	
74	Ge	1	3917008	4.00	3965000	**98.8**	30	-	125	
103	Rh	1	5685451	6.29	5756000	**98.8**	30	-	125	
165	Ho	1	2869927	6.19	2702000	**106.2**	30	-	125	
175	Lu	1	2501967	5.02	2349000	**106.5**	30	-	125	
209	Bi	1	3182122	3.73	2910000	**109.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\156SMPL.D\156SMPL.D#
Date Acquired: Sep 16 2011 02:32 am Acq. Method: 00He_ALL.M
Sample Name: 580-28496-B-10-E MSD Vial Number: 2407
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.362**	ug/l	118.10	2.4	900	6	P	
23	**Na**	1	**518.300**	ug/l	25,915.00	2.1	450000	6	P	
24	**Mg**	1	**482.200**	ug/l	24,110.00	1.7	450000	6	P	
27	**Al**	1	**97.380**	ug/l	4,869.00	2.3	450000	6	P	
31	**P**	1	**462.600**	ug/l	23,130.00	0.6	450000	6	P	
39	**K**	1	**398.700**	ug/l	19,935.00	0.8	450000	45	P	
44	**Ca**	1	**437.000**	ug/l	21,850.00	0.1	450000	45	P	
47	**Ti**	1	**106.400**	ug/l	5,320.00	0.6	4500	45	P	
51	**V**	1	**22.190**	ug/l	1,109.50	1.1	4500	45	P	
52	**Cr**	1	**9.078**	ug/l	453.90	0.2	4500	45	P	
55	**Mn**	1	**23.380**	ug/l	1,169.00	1.0	4500	45	P	
57	**Fe**	1	**467.900**	ug/l	23,395.00	1.7	450000	74	P	
59	**Co**	1	**22.740**	ug/l	1,137.00	1.3	4500	45	P	
60	**Ni**	1	**23.850**	ug/l	1,192.50	1.4	4500	45	P	
63	**Cu**	1	**12.480**	ug/l	624.00	2.3	4500	45	P	
66	**Zn**	1	**22.530**	ug/l	1,126.50	1.4	4500	74	P	
75	**As**	1	**99.290**	ug/l	4,964.50	1.0	4500	45	P	
78	**Se**	1	**96.810**	ug/l	4,840.50	1.1	4500	45	P	
88	**Sr**	1	**-0.017**	ug/l	-0.83	18.5	4500	45	P	
95	**Mo**	1	**113.500**	ug/l	5,675.00	1.2	4500	74	P	
109	**Ag**	1	**12.980**	ug/l	649.00	1.1	4500	103	P	
111	**Cd**	1	**2.216**	ug/l	110.80	5.3	4500	103	P	
118	**Sn**	1	**108.400**	ug/l	5,420.00	1.9	4500	103	P	
123	**Sb**	1	**65.600**	ug/l	3,280.00	1.8	4500	103	P	
135	**Ba**	1	**85.850**	ug/l	4,292.50	0.9	4500	103	P	
200	**Hg**	1	**1.039**	ug/l	51.95	1.1	45	209	P	
205	**Tl**	1	**89.720**	ug/l	4,486.00	3.5	4500	165	A	
208	**Pb**	1	**21.580**	ug/l	1,079.00	1.9	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	160.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61634	0.65	81580	**75.6**	30	-	125	
45	Sc	1	1436489	1.30	1568000	**91.6**	30	-	125	
74	Ge	1	3872469	1.86	3965000	**97.7**	30	-	125	
103	Rh	1	5791543	0.51	5756000	**100.6**	30	-	125	
165	Ho	1	2912055	1.39	2702000	**107.8**	30	-	125	
175	Lu	1	2563883	1.52	2349000	**109.1**	30	-	125	
209	Bi	1	3227821	1.49	2910000	**110.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\157SMPL.D\157SMPL.D#
Date Acquired: Sep 16 2011 02:36 am Acq. Method: 00He_ALL.M
Sample Name: 580-28496-B-10-B PDS Vial Number: 2408
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.302**	ug/l	115.10	4.0	900	6	P	
23	Na	1	**514.000**	ug/l	25,700.00	0.4	450000	6	P	
24	Mg	1	**481.600**	ug/l	24,080.00	1.2	450000	6	P	
27	Al	1	**97.990**	ug/l	4,899.50	0.9	450000	6	P	
31	P	1	**449.800**	ug/l	22,490.00	0.1	450000	6	P	
39	K	1	**397.400**	ug/l	19,870.00	2.3	450000	45	P	
44	Ca	1	**435.500**	ug/l	21,775.00	3.0	450000	45	P	
47	Ti	1	**105.400**	ug/l	5,270.00	1.9	4500	45	P	
51	V	1	**21.890**	ug/l	1,094.50	2.1	4500	45	P	
52	Cr	1	**9.061**	ug/l	453.05	3.4	4500	45	P	
55	Mn	1	**23.300**	ug/l	1,165.00	2.4	4500	45	P	
57	Fe	1	**461.900**	ug/l	23,095.00	1.0	450000	74	P	
59	Co	1	**22.580**	ug/l	1,129.00	2.4	4500	45	P	
60	Ni	1	**23.540**	ug/l	1,177.00	2.9	4500	45	P	
63	Cu	1	**12.310**	ug/l	615.50	3.2	4500	45	P	
66	Zn	1	**21.780**	ug/l	1,089.00	1.6	4500	74	P	
75	As	1	**97.670**	ug/l	4,883.50	2.9	4500	45	P	
78	Se	1	**95.910**	ug/l	4,795.50	2.9	4500	45	P	
88	Sr	1	**-0.010**	ug/l	-0.49	42.5	4500	45	P	
95	Mo	1	**111.500**	ug/l	5,575.00	1.4	4500	74	P	
109	Ag	1	**12.860**	ug/l	643.00	1.5	4500	103	P	
111	Cd	1	**2.198**	ug/l	109.90	2.0	4500	103	P	
118	Sn	1	**108.600**	ug/l	5,430.00	1.3	4500	103	P	
123	Sb	1	**65.540**	ug/l	3,277.00	0.8	4500	103	P	
135	Ba	1	**85.040**	ug/l	4,252.00	0.4	4500	103	P	
200	Hg	1	**1.024**	ug/l	51.20	2.4	45	209	P	
205	Tl	1	**89.440**	ug/l	4,472.00	3.6	4500	165	A	
208	Pb	1	**21.510**	ug/l	1,075.50	0.9	4500	209	P	
238	U	1	**0.000**	ug/l	-0.01	149.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61431	0.30	81580	**75.3**	30	-	125	
45	Sc	1	1439348	2.42	1568000	**91.8**	30	-	125	
74	Ge	1	3903010	1.01	3965000	**98.4**	30	-	125	
103	Rh	1	5738916	0.12	5756000	**99.7**	30	-	125	
165	Ho	1	2908523	1.33	2702000	**107.6**	30	-	125	
175	Lu	1	2565096	0.55	2349000	**109.2**	30	-	125	
209	Bi	1	3213761	0.46	2910000	**110.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\158SMPL.D\158SMPL.D#
Date Acquired: Sep 16 2011 02:40 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95423/17-A Vial Number: 2409
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.085**	ug/l	104.25	6.0	900	6	P	
23	**Na**	1	**476.500**	ug/l	23,825.00	1.1	450000	6	P	
24	**Mg**	1	**443.900**	ug/l	22,195.00	0.9	450000	6	P	
27	**Al**	1	**92.000**	ug/l	4,600.00	1.1	450000	6	P	
31	**P**	1	**419.200**	ug/l	20,960.00	3.0	450000	6	P	
39	**K**	1	**354.800**	ug/l	17,740.00	2.0	450000	45	P	
44	**Ca**	1	**397.200**	ug/l	19,860.00	2.1	450000	45	P	
47	**Ti**	1	**95.420**	ug/l	4,771.00	2.5	4500	45	P	
51	**V**	1	**19.950**	ug/l	997.50	2.3	4500	45	P	
52	**Cr**	1	**8.209**	ug/l	410.45	3.0	4500	45	P	
55	**Mn**	1	**20.970**	ug/l	1,048.50	2.5	4500	45	P	
57	**Fe**	1	**415.700**	ug/l	20,785.00	0.6	450000	74	P	
59	**Co**	1	**20.560**	ug/l	1,028.00	2.1	4500	45	P	
60	**Ni**	1	**21.140**	ug/l	1,057.00	1.6	4500	45	P	
63	**Cu**	1	**11.130**	ug/l	556.50	1.8	4500	45	P	
66	**Zn**	1	**20.550**	ug/l	1,027.50	1.4	4500	74	P	
75	**As**	1	**88.570**	ug/l	4,428.50	2.2	4500	45	P	
78	**Se**	1	**87.490**	ug/l	4,374.50	2.1	4500	45	P	
88	**Sr**	1	**0.016**	ug/l	0.78	61.7	4500	45	P	
95	**Mo**	1	**101.000**	ug/l	5,050.00	0.7	4500	74	P	
109	**Ag**	1	**11.730**	ug/l	586.50	1.8	4500	103	P	
111	**Cd**	1	**1.989**	ug/l	99.45	3.0	4500	103	P	
118	**Sn**	1	**98.940**	ug/l	4,947.00	0.7	4500	103	P	
123	**Sb**	1	**57.930**	ug/l	2,896.50	0.5	4500	103	P	
135	**Ba**	1	**77.730**	ug/l	3,886.50	1.0	4500	103	P	
200	**Hg**	1	**0.946**	ug/l	47.30	1.2	45	209	P	
205	**Tl**	1	**80.620**	ug/l	4,031.00	4.6	4500	165	A	
208	**Pb**	1	**19.380**	ug/l	969.00	1.6	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.02	74.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61148	0.99	81580	**75.0**	30	-	125	
45	Sc	1	1440664	2.40	1568000	**91.9**	30	-	125	
74	Ge	1	3921241	0.54	3965000	**98.9**	30	-	125	
103	Rh	1	5726096	0.24	5756000	**99.5**	30	-	125	
165	Ho	1	2890419	0.68	2702000	**107.0**	30	-	125	
175	Lu	1	2551070	2.62	2349000	**108.6**	30	-	125	
209	Bi	1	3226951	1.93	2910000	**110.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\159SMPL.D\159SMPL.D#
Date Acquired: Sep 16 2011 02:45 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95423/18-A Vial Number: 2410
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.080**	ug/l	104.00	6.2	900	6	P	
23	**Na**	1	**466.800**	ug/l	23,340.00	1.7	450000	6	P	
24	**Mg**	1	**438.300**	ug/l	21,915.00	0.3	450000	6	P	
27	**Al**	1	**89.760**	ug/l	4,488.00	0.4	450000	6	P	
31	**P**	1	**402.800**	ug/l	20,140.00	4.2	450000	6	P	
39	**K**	1	**359.800**	ug/l	17,990.00	1.8	450000	45	P	
44	**Ca**	1	**400.400**	ug/l	20,020.00	2.6	450000	45	P	
47	**Ti**	1	**96.500**	ug/l	4,825.00	3.4	4500	45	P	
51	**V**	1	**20.250**	ug/l	1,012.50	2.8	4500	45	P	
52	**Cr**	1	**8.395**	ug/l	419.75	1.6	4500	45	P	
55	**Mn**	1	**21.200**	ug/l	1,060.00	1.6	4500	45	P	
57	**Fe**	1	**418.400**	ug/l	20,920.00	2.1	450000	74	P	
59	**Co**	1	**20.790**	ug/l	1,039.50	2.2	4500	45	P	
60	**Ni**	1	**21.380**	ug/l	1,069.00	3.2	4500	45	P	
63	**Cu**	1	**11.460**	ug/l	573.00	3.3	4500	45	P	
66	**Zn**	1	**21.120**	ug/l	1,056.00	0.9	4500	74	P	
75	**As**	1	**89.220**	ug/l	4,461.00	2.4	4500	45	P	
78	**Se**	1	**88.870**	ug/l	4,443.50	1.4	4500	45	P	
88	**Sr**	1	**0.006**	ug/l	0.29	142.0	4500	45	P	
95	**Mo**	1	**101.900**	ug/l	5,095.00	1.4	4500	74	P	
109	**Ag**	1	**11.770**	ug/l	588.50	0.8	4500	103	P	
111	**Cd**	1	**1.914**	ug/l	95.70	2.5	4500	103	P	
118	**Sn**	1	**98.320**	ug/l	4,916.00	1.6	4500	103	P	
123	**Sb**	1	**57.410**	ug/l	2,870.50	0.9	4500	103	P	
135	**Ba**	1	**77.440**	ug/l	3,872.00	2.0	4500	103	P	
200	**Hg**	1	**0.963**	ug/l	48.16	4.6	45	209	P	
205	**Tl**	1	**81.030**	ug/l	4,051.50	3.5	4500	165	A	
208	**Pb**	1	**19.390**	ug/l	969.50	1.9	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.01	312.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62399	3.28	81580	**76.5**	30	-	125	
45	Sc	1	1444294	2.09	1568000	**92.1**	30	-	125	
74	Ge	1	3948387	0.47	3965000	**99.6**	30	-	125	
103	Rh	1	5790351	0.92	5756000	**100.6**	30	-	125	
165	Ho	1	2930367	0.44	2702000	**108.5**	30	-	125	
175	Lu	1	2593839	1.74	2349000	**110.4**	30	-	125	
209	Bi	1	3253609	0.93	2910000	**111.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\160SMPL.D\160SMPL.D#
Date Acquired: Sep 16 2011 02:49 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.070**	ug/l	51.07	1.8	900	6	P	
23	**Na**	1	**5099.000**	ug/l	5,099.00	1.2	450000	6	A	
24	**Mg**	1	**5162.000**	ug/l	5,162.00	1.9	450000	6	A	
27	**Al**	1	**535.300**	ug/l	535.30	1.2	450000	6	P	
31	**P**	1	**5109.000**	ug/l	5,109.00	1.5	450000	6	P	
39	**K**	1	**4461.000**	ug/l	4,461.00	3.7	450000	45	A	
44	**Ca**	1	**4645.000**	ug/l	4,645.00	2.6	450000	45	P	
47	**Ti**	1	**46.800**	ug/l	46.80	2.5	4500	45	P	
51	**V**	1	**47.900**	ug/l	47.90	2.0	4500	45	P	
52	**Cr**	1	**48.680**	ug/l	48.68	2.7	4500	45	P	
55	**Mn**	1	**49.340**	ug/l	49.34	2.1	4500	45	P	
57	**Fe**	1	**4704.000**	ug/l	4,704.00	2.3	450000	74	A	
59	**Co**	1	**47.820**	ug/l	47.82	3.1	4500	45	P	
60	**Ni**	1	**49.810**	ug/l	49.81	4.0	4500	45	P	
63	**Cu**	1	**50.900**	ug/l	50.90	2.6	4500	45	P	
66	**Zn**	1	**47.350**	ug/l	47.35	0.9	4500	74	P	
75	**As**	1	**51.260**	ug/l	51.26	2.9	4500	45	P	
78	**Se**	1	**51.510**	ug/l	51.51	2.4	4500	45	P	
88	**Sr**	1	**52.350**	ug/l	52.35	2.0	4500	45	P	
95	**Mo**	1	**48.420**	ug/l	48.42	1.0	4500	74	P	
109	**Ag**	1	**46.750**	ug/l	46.75	1.6	4500	103	P	
111	**Cd**	1	**48.120**	ug/l	48.12	1.5	4500	103	P	
118	**Sn**	1	**48.390**	ug/l	48.39	1.0	4500	103	P	
123	**Sb**	1	**48.520**	ug/l	48.52	0.1	4500	103	P	
135	**Ba**	1	**47.930**	ug/l	47.93	0.7	4500	103	P	
200	**Hg**	1	**2.381**	ug/l	2.38	2.8	45	209	P	
205	**Tl**	1	**48.390**	ug/l	48.39	4.3	4500	165	A	
208	**Pb**	1	**46.550**	ug/l	46.55	2.3	4500	209	P	
238	**U**	1	**49.540**	ug/l	49.54	0.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63586	2.09	81580	**77.9**	30	-	125	
45	Sc	1	1490148	2.62	1568000	**95.0**	30	-	125	
74	Ge	1	3978549	0.37	3965000	**100.3**	30	-	125	
103	Rh	1	5650378	0.49	5756000	**98.2**	30	-	125	
165	Ho	1	2930016	0.77	2702000	**108.4**	30	-	125	
175	Lu	1	2588939	0.19	2349000	**110.2**	30	-	125	
209	Bi	1	3151530	2.35	2910000	**108.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\161SMPL.D\161SMPL.D#
Date Acquired: Sep 16 2011 02:54 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.015**	ug/l	0.01	173.1	900	6	P	
23	Na	1	**33.020**	ug/l	33.02	4.9	450000	6	P	
24	Mg	1	**1.652**	ug/l	1.65	39.1	450000	6	P	
27	Al	1	**0.317**	ug/l	0.32	74.4	450000	6	P	
31	P	1	**0.265**	ug/l	0.27	602.1	450000	6	P	
39	K	1	**-22.800**	ug/l	-22.80	16.9	450000	45	P	
44	Ca	1	**0.939**	ug/l	0.94	141.4	450000	45	P	
47	Ti	1	**0.058**	ug/l	0.06	40.8	4500	45	P	
51	V	1	**-0.296**	ug/l	-0.30	7.6	4500	45	P	
52	Cr	1	**0.003**	ug/l	0.00	307.5	4500	45	P	
55	Mn	1	**0.041**	ug/l	0.04	25.5	4500	45	P	
57	Fe	1	**2.316**	ug/l	2.32	30.0	450000	74	P	
59	Co	1	**0.019**	ug/l	0.02	36.2	4500	45	P	
60	Ni	1	**0.023**	ug/l	0.02	49.3	4500	45	P	
63	Cu	1	**0.076**	ug/l	0.08	19.1	4500	45	P	
66	Zn	1	**0.034**	ug/l	0.03	62.1	4500	74	P	
75	As	1	**-0.016**	ug/l	-0.02	108.6	4500	45	P	
78	Se	1	**0.091**	ug/l	0.09	132.3	4500	45	P	
88	Sr	1	**0.019**	ug/l	0.02	59.0	4500	45	P	
95	Mo	1	**0.187**	ug/l	0.19	10.5	4500	74	P	
109	Ag	1	**0.017**	ug/l	0.02	45.7	4500	103	P	
111	Cd	1	**0.005**	ug/l	0.01	210.9	4500	103	P	
118	Sn	1	**0.384**	ug/l	0.38	12.8	4500	103	P	
123	Sb	1	**0.081**	ug/l	0.08	27.3	4500	103	P	
135	Ba	1	**0.024**	ug/l	0.02	126.3	4500	103	P	
200	Hg	1	**0.008**	ug/l	0.01	25.8	45	209	P	
205	Tl	1	**0.551**	ug/l	0.55	11.7	4500	165	P	
208	Pb	1	**0.016**	ug/l	0.02	66.7	4500	209	P	
238	U	1	**0.024**	ug/l	0.02	12.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64202	1.00	81580	**78.7**	30	-	125	
45	Sc	1	1482957	3.76	1568000	**94.6**	30	-	125	
74	Ge	1	3946777	2.46	3965000	**99.5**	30	-	125	
103	Rh	1	5839719	0.52	5756000	**101.5**	30	-	125	
165	Ho	1	2892828	0.95	2702000	**107.1**	30	-	125	
175	Lu	1	2554470	1.63	2349000	**108.7**	30	-	125	
209	Bi	1	3238679	1.39	2910000	**111.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\162SMPL.D\162SMPL.D#
Date Acquired: Sep 16 2011 02:58 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-17-A Vial Number: 2501
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.006**	ug/l	-0.03	171.4	900	6	P	
23	**Na**	1	**1246.000**	ug/l	6,230.00	1.4	450000	6	A	
24	**Mg**	1	**144.100**	ug/l	720.50	0.6	450000	6	P	
27	**Al**	1	**12.990**	ug/l	64.95	3.0	450000	6	P	
31	**P**	1	**26.760**	ug/l	133.80	18.5	450000	6	P	
39	**K**	1	**76.600**	ug/l	383.00	3.9	450000	45	P	
44	**Ca**	1	**524.800**	ug/l	2,624.00	1.2	450000	45	P	
47	**Ti**	1	**0.125**	ug/l	0.63	7.7	4500	45	P	
51	**V**	1	**0.349**	ug/l	1.75	9.9	4500	45	P	
52	**Cr**	1	**0.102**	ug/l	0.51	28.8	4500	45	P	
55	**Mn**	1	**0.809**	ug/l	4.05	1.7	4500	45	P	
57	**Fe**	1	**12.910**	ug/l	64.55	1.7	450000	74	P	
59	**Co**	1	**0.010**	ug/l	0.05	22.9	4500	45	P	
60	**Ni**	1	**0.074**	ug/l	0.37	20.0	4500	45	P	
63	**Cu**	1	**0.074**	ug/l	0.37	26.8	4500	45	P	
66	**Zn**	1	**8.118**	ug/l	40.59	3.2	4500	74	P	
75	**As**	1	**23.190**	ug/l	115.95	1.0	4500	45	P	
78	**Se**	1	**0.089**	ug/l	0.45	116.8	4500	45	P	
88	**Sr**	1	**1.886**	ug/l	9.43	1.4	4500	45	P	
95	**Mo**	1	**0.098**	ug/l	0.49	17.2	4500	74	P	
109	**Ag**	1	**0.025**	ug/l	0.12	23.1	4500	103	P	
111	**Cd**	1	**-0.005**	ug/l	-0.02	63.3	4500	103	P	
118	**Sn**	1	**0.305**	ug/l	1.52	26.5	4500	103	P	
123	**Sb**	1	**0.047**	ug/l	0.23	24.1	4500	103	P	
135	**Ba**	1	**0.077**	ug/l	0.38	5.4	4500	103	P	
200	**Hg**	1	**-0.002**	ug/l	-0.01	82.8	45	209	P	
205	**Tl**	1	**0.241**	ug/l	1.21	16.1	4500	165	P	
208	**Pb**	1	**0.120**	ug/l	0.60	3.3	4500	209	P	
238	**U**	1	**0.006**	ug/l	0.03	28.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59262	2.38	81580	**72.6**	30	-	125	
45	Sc	1	1392120	1.64	1568000	**88.8**	30	-	125	
74	Ge	1	3863301	1.43	3965000	**97.4**	30	-	125	
103	Rh	1	5668472	1.85	5756000	**98.5**	30	-	125	
165	Ho	1	2920305	1.85	2702000	**108.1**	30	-	125	
175	Lu	1	2558430	1.47	2349000	**108.9**	30	-	125	
209	Bi	1	3231795	0.58	2910000	**111.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\163SMPL.D\163SMPL.D#
Date Acquired: Sep 16 2011 03:02 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-18-A Vial Number: 2502
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.010**	ug/l	-0.05	82.6	900	6	P	
23	**Na**	1	**1524.000**	ug/l	7,620.00	3.5	450000	6	A	
24	**Mg**	1	**74.160**	ug/l	370.80	2.7	450000	6	P	
27	**Al**	1	**62.580**	ug/l	312.90	1.8	450000	6	P	
31	**P**	1	**24.820**	ug/l	124.10	5.1	450000	6	P	
39	**K**	1	**90.890**	ug/l	454.45	2.6	450000	45	P	
44	**Ca**	1	**352.200**	ug/l	1,761.00	0.3	450000	45	P	
47	**Ti**	1	**0.853**	ug/l	4.26	3.2	4500	45	P	
51	**V**	1	**0.252**	ug/l	1.26	12.1	4500	45	P	
52	**Cr**	1	**0.331**	ug/l	1.66	5.9	4500	45	P	
55	**Mn**	1	**1.417**	ug/l	7.09	4.2	4500	45	P	
57	**Fe**	1	**33.640**	ug/l	168.20	4.3	450000	74	P	
59	**Co**	1	**0.007**	ug/l	0.04	17.0	4500	45	P	
60	**Ni**	1	**0.094**	ug/l	0.47	24.0	4500	45	P	
63	**Cu**	1	**0.141**	ug/l	0.71	12.2	4500	45	P	
66	**Zn**	1	**9.182**	ug/l	45.91	2.3	4500	74	P	
75	**As**	1	**24.900**	ug/l	124.50	2.1	4500	45	P	
78	**Se**	1	**0.032**	ug/l	0.16	216.9	4500	45	P	
88	**Sr**	1	**1.032**	ug/l	5.16	3.9	4500	45	P	
95	**Mo**	1	**0.068**	ug/l	0.34	35.3	4500	74	P	
109	**Ag**	1	**0.023**	ug/l	0.11	10.5	4500	103	P	
111	**Cd**	1	**-0.002**	ug/l	-0.01	479.4	4500	103	P	
118	**Sn**	1	**0.200**	ug/l	1.00	19.7	4500	103	P	
123	**Sb**	1	**0.030**	ug/l	0.15	12.1	4500	103	P	
135	**Ba**	1	**0.104**	ug/l	0.52	3.4	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.02	33.3	45	209	P	
205	**Tl**	1	**0.155**	ug/l	0.78	19.3	4500	165	P	
208	**Pb**	1	**0.176**	ug/l	0.88	4.1	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.01	41.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	58855	3.33	81580	**72.1**	30	-	125	
45	Sc	1	1378363	1.17	1568000	**87.9**	30	-	125	
74	Ge	1	3809901	1.53	3965000	**96.1**	30	-	125	
103	Rh	1	5623130	1.40	5756000	**97.7**	30	-	125	
165	Ho	1	2895317	0.89	2702000	**107.2**	30	-	125	
175	Lu	1	2533440	1.42	2349000	**107.9**	30	-	125	
209	Bi	1	3232474	0.56	2910000	**111.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\164SMPL.D\164SMPL.D#
Date Acquired: Sep 16 2011 03:07 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-19-A Vial Number: 2503
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.006**	ug/l	-0.03	321.4	900	6	P	
23	**Na**	1	**818.100**	ug/l	4,090.50	0.4	450000	6	A	
24	**Mg**	1	**371.900**	ug/l	1,859.50	1.2	450000	6	P	
27	**Al**	1	**11.590**	ug/l	57.95	8.4	450000	6	P	
31	**P**	1	**21.740**	ug/l	108.70	6.3	450000	6	P	
39	**K**	1	**44.300**	ug/l	221.50	2.6	450000	45	P	
44	**Ca**	1	**1196.000**	ug/l	5,980.00	1.1	450000	45	P	
47	**Ti**	1	**0.754**	ug/l	3.77	13.2	4500	45	P	
51	**V**	1	**0.730**	ug/l	3.65	1.4	4500	45	P	
52	**Cr**	1	**0.275**	ug/l	1.38	9.1	4500	45	P	
55	**Mn**	1	**2.507**	ug/l	12.54	0.8	4500	45	P	
57	**Fe**	1	**36.930**	ug/l	184.65	3.2	450000	74	P	
59	**Co**	1	**0.020**	ug/l	0.10	6.8	4500	45	P	
60	**Ni**	1	**0.108**	ug/l	0.54	12.1	4500	45	P	
63	**Cu**	1	**0.102**	ug/l	0.51	11.2	4500	45	P	
66	**Zn**	1	**20.790**	ug/l	103.95	1.0	4500	74	P	
75	**As**	1	**32.610**	ug/l	163.05	0.9	4500	45	P	
78	**Se**	1	**0.034**	ug/l	0.17	244.1	4500	45	P	
88	**Sr**	1	**4.618**	ug/l	23.09	1.2	4500	45	P	
95	**Mo**	1	**0.047**	ug/l	0.24	27.5	4500	74	P	
109	**Ag**	1	**0.005**	ug/l	0.03	39.1	4500	103	P	
111	**Cd**	1	**-0.006**	ug/l	-0.03	106.8	4500	103	P	
118	**Sn**	1	**0.183**	ug/l	0.92	8.4	4500	103	P	
123	**Sb**	1	**0.040**	ug/l	0.20	15.3	4500	103	P	
135	**Ba**	1	**0.141**	ug/l	0.71	24.3	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.02	11.3	45	209	P	
205	**Tl**	1	**0.130**	ug/l	0.65	15.5	4500	165	P	
208	**Pb**	1	**0.106**	ug/l	0.53	6.0	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.01	7.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	58656	0.50	81580	**71.9**	30	-	125	
45	Sc	1	1361260	0.54	1568000	**86.8**	30	-	125	
74	Ge	1	3782252	0.38	3965000	**95.4**	30	-	125	
103	Rh	1	5585435	0.97	5756000	**97.0**	30	-	125	
165	Ho	1	2910321	1.24	2702000	**107.7**	30	-	125	
175	Lu	1	2542196	1.78	2349000	**108.2**	30	-	125	
209	Bi	1	3233243	1.06	2910000	**111.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\165SMPL.D\165SMPL.D#
Date Acquired: Sep 16 2011 03:11 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-20-A Vial Number: 2504
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.04	104.2	900	6	P	
23	**Na**	1	**691.200**	ug/l	3,456.00	1.5	450000	6	A	
24	**Mg**	1	**173.300**	ug/l	866.50	0.8	450000	6	P	
27	**Al**	1	**9.760**	ug/l	48.80	7.1	450000	6	P	
31	**P**	1	**21.180**	ug/l	105.90	8.5	450000	6	P	
39	**K**	1	**34.470**	ug/l	172.35	15.0	450000	45	P	
44	**Ca**	1	**682.400**	ug/l	3,412.00	2.0	450000	45	P	
47	**Ti**	1	**1.089**	ug/l	5.45	8.3	4500	45	P	
51	**V**	1	**0.458**	ug/l	2.29	6.3	4500	45	P	
52	**Cr**	1	**0.382**	ug/l	1.91	7.1	4500	45	P	
55	**Mn**	1	**7.351**	ug/l	36.76	1.0	4500	45	P	
57	**Fe**	1	**30.750**	ug/l	153.75	6.7	450000	74	P	
59	**Co**	1	**0.014**	ug/l	0.07	32.6	4500	45	P	
60	**Ni**	1	**0.053**	ug/l	0.26	39.4	4500	45	P	
63	**Cu**	1	**0.024**	ug/l	0.12	90.8	4500	45	P	
66	**Zn**	1	**11.810**	ug/l	59.05	2.7	4500	74	P	
75	**As**	1	**42.910**	ug/l	214.55	2.0	4500	45	P	
78	**Se**	1	**0.013**	ug/l	0.06	827.4	4500	45	P	
88	**Sr**	1	**2.238**	ug/l	11.19	3.0	4500	45	P	
95	**Mo**	1	**0.044**	ug/l	0.22	7.0	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.03	33.3	4500	103	P	
111	**Cd**	1	**-0.006**	ug/l	-0.03	128.9	4500	103	P	
118	**Sn**	1	**0.152**	ug/l	0.76	14.6	4500	103	P	
123	**Sb**	1	**0.025**	ug/l	0.13	30.0	4500	103	P	
135	**Ba**	1	**0.624**	ug/l	3.12	4.9	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.03	41.2	45	209	P	
205	**Tl**	1	**0.090**	ug/l	0.45	18.5	4500	165	P	
208	**Pb**	1	**0.071**	ug/l	0.36	13.9	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	293.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60305	1.72	81580	**73.9**	30	-	125	
45	Sc	1	1384231	2.14	1568000	**88.3**	30	-	125	
74	Ge	1	3885739	0.76	3965000	**98.0**	30	-	125	
103	Rh	1	5668841	0.65	5756000	**98.5**	30	-	125	
165	Ho	1	2920916	1.93	2702000	**108.1**	30	-	125	
175	Lu	1	2563320	1.96	2349000	**109.1**	30	-	125	
209	Bi	1	3226363	2.37	2910000	**110.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\166SMPL.D\166SMPL.D#
Date Acquired: Sep 16 2011 03:16 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-21-A Vial Number: 2505
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.04	97.9	900	6	P	
23	**Na**	1	**669.700**	ug/l	3,348.50	3.4	450000	6	A	
24	**Mg**	1	**89.700**	ug/l	448.50	0.5	450000	6	P	
27	**Al**	1	**40.980**	ug/l	204.90	1.7	450000	6	P	
31	**P**	1	**29.510**	ug/l	147.55	6.6	450000	6	P	
39	**K**	1	**35.080**	ug/l	175.40	11.4	450000	45	P	
44	**Ca**	1	**377.700**	ug/l	1,888.50	1.5	450000	45	P	
47	**Ti**	1	**0.585**	ug/l	2.93	8.2	4500	45	P	
51	**V**	1	**0.298**	ug/l	1.49	2.6	4500	45	P	
52	**Cr**	1	**0.263**	ug/l	1.32	5.2	4500	45	P	
55	**Mn**	1	**1.161**	ug/l	5.81	3.1	4500	45	P	
57	**Fe**	1	**21.090**	ug/l	105.45	5.1	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.04	15.0	4500	45	P	
60	**Ni**	1	**0.111**	ug/l	0.55	15.4	4500	45	P	
63	**Cu**	1	**0.255**	ug/l	1.28	5.8	4500	45	P	
66	**Zn**	1	**8.423**	ug/l	42.12	4.5	4500	74	P	
75	**As**	1	**47.770**	ug/l	238.85	1.7	4500	45	P	
78	**Se**	1	**-0.011**	ug/l	-0.05	71.2	4500	45	P	
88	**Sr**	1	**1.186**	ug/l	5.93	2.6	4500	45	P	
95	**Mo**	1	**0.060**	ug/l	0.30	12.2	4500	74	P	
109	**Ag**	1	**0.003**	ug/l	0.02	11.2	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.00	225.1	4500	103	P	
118	**Sn**	1	**0.116**	ug/l	0.58	33.7	4500	103	P	
123	**Sb**	1	**0.020**	ug/l	0.10	12.3	4500	103	P	
135	**Ba**	1	**0.054**	ug/l	0.27	16.9	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.03	33.2	45	209	P	
205	**Tl**	1	**0.068**	ug/l	0.34	17.4	4500	165	P	
208	**Pb**	1	**0.038**	ug/l	0.19	15.7	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.00	78.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60480	1.78	81580	**74.1**	30	-	125	
45	Sc	1	1424011	1.93	1568000	**90.8**	30	-	125	
74	Ge	1	3872719	1.45	3965000	**97.7**	30	-	125	
103	Rh	1	5765885	1.30	5756000	**100.2**	30	-	125	
165	Ho	1	2977636	0.46	2702000	**110.2**	30	-	125	
175	Lu	1	2611943	0.14	2349000	**111.2**	30	-	125	
209	Bi	1	3319073	0.56	2910000	**114.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\167SMPL.D\167SMPL.D#
Date Acquired: Sep 16 2011 03:20 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-22-A Vial Number: 2506
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.009**	ug/l	-0.05	90.8	900	6	P	
23	**Na**	1	**947.000**	ug/l	4,735.00	3.5	450000	6	A	
24	**Mg**	1	**674.100**	ug/l	3,370.50	1.9	450000	6	P	
27	**Al**	1	**13.190**	ug/l	65.95	1.6	450000	6	P	
31	**P**	1	**29.490**	ug/l	147.45	17.0	450000	6	P	
39	**K**	1	**40.790**	ug/l	203.95	10.0	450000	45	P	
44	**Ca**	1	**2032.000**	ug/l	10,160.00	2.0	450000	45	P	
47	**Ti**	1	**0.923**	ug/l	4.61	4.7	4500	45	P	
51	**V**	1	**0.949**	ug/l	4.75	7.7	4500	45	P	
52	**Cr**	1	**0.533**	ug/l	2.67	5.0	4500	45	P	
55	**Mn**	1	**2.693**	ug/l	13.47	3.1	4500	45	P	
57	**Fe**	1	**12.800**	ug/l	64.00	6.7	450000	74	P	
59	**Co**	1	**0.011**	ug/l	0.06	22.8	4500	45	P	
60	**Ni**	1	**0.511**	ug/l	2.56	4.0	4500	45	P	
63	**Cu**	1	**0.068**	ug/l	0.34	23.3	4500	45	P	
66	**Zn**	1	**31.180**	ug/l	155.90	2.2	4500	74	P	
75	**As**	1	**19.120**	ug/l	95.60	3.0	4500	45	P	
78	**Se**	1	**-0.027**	ug/l	-0.13	257.1	4500	45	P	
88	**Sr**	1	**8.314**	ug/l	41.57	3.7	4500	45	P	
95	**Mo**	1	**0.037**	ug/l	0.19	32.7	4500	74	P	
109	**Ag**	1	**0.005**	ug/l	0.02	43.8	4500	103	P	
111	**Cd**	1	**-0.004**	ug/l	-0.02	132.7	4500	103	P	
118	**Sn**	1	**0.105**	ug/l	0.52	20.3	4500	103	P	
123	**Sb**	1	**0.017**	ug/l	0.09	62.1	4500	103	P	
135	**Ba**	1	**0.133**	ug/l	0.67	30.5	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.02	47.3	45	209	P	
205	**Tl**	1	**0.053**	ug/l	0.27	32.0	4500	165	P	
208	**Pb**	1	**0.149**	ug/l	0.75	7.7	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.01	79.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57849	0.79	81580	**70.9**	30	-	125	
45	Sc	1	1349773	1.72	1568000	**86.1**	30	-	125	
74	Ge	1	3746773	0.54	3965000	**94.5**	30	-	125	
103	Rh	1	5556314	1.43	5756000	**96.5**	30	-	125	
165	Ho	1	2914211	1.74	2702000	**107.9**	30	-	125	
175	Lu	1	2540390	1.29	2349000	**108.1**	30	-	125	
209	Bi	1	3214464	0.86	2910000	**110.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\168SMPL.D\168SMPL.D#
Date Acquired: Sep 16 2011 03:24 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-23-A Vial Number: 2507
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.011**	ug/l	-0.06	130.8	900	6	P	
23	**Na**	1	**753.100**	ug/l	3,765.50	2.1	450000	6	A	
24	**Mg**	1	**197.600**	ug/l	988.00	0.7	450000	6	P	
27	**Al**	1	**8.840**	ug/l	44.20	5.0	450000	6	P	
31	**P**	1	**21.400**	ug/l	107.00	9.7	450000	6	P	
39	**K**	1	**38.170**	ug/l	190.85	14.4	450000	45	P	
44	**Ca**	1	**661.500**	ug/l	3,307.50	2.4	450000	45	P	
47	**Ti**	1	**0.692**	ug/l	3.46	1.6	4500	45	P	
51	**V**	1	**0.574**	ug/l	2.87	11.6	4500	45	P	
52	**Cr**	1	**0.461**	ug/l	2.30	8.2	4500	45	P	
55	**Mn**	1	**10.070**	ug/l	50.35	4.1	4500	45	P	
57	**Fe**	1	**9.699**	ug/l	48.50	2.7	450000	74	P	
59	**Co**	1	**0.012**	ug/l	0.06	18.4	4500	45	P	
60	**Ni**	1	**0.272**	ug/l	1.36	18.5	4500	45	P	
63	**Cu**	1	**0.178**	ug/l	0.89	13.1	4500	45	P	
66	**Zn**	1	**12.530**	ug/l	62.65	2.8	4500	74	P	
75	**As**	1	**43.540**	ug/l	217.70	3.6	4500	45	P	
78	**Se**	1	**0.003**	ug/l	0.02	1738.7	4500	45	P	
88	**Sr**	1	**2.593**	ug/l	12.97	3.8	4500	45	P	
95	**Mo**	1	**0.036**	ug/l	0.18	27.0	4500	74	P	
109	**Ag**	1	**0.004**	ug/l	0.02	51.5	4500	103	P	
111	**Cd**	1	**-0.006**	ug/l	-0.03	32.1	4500	103	P	
118	**Sn**	1	**0.089**	ug/l	0.45	19.0	4500	103	P	
123	**Sb**	1	**0.019**	ug/l	0.10	25.2	4500	103	P	
135	**Ba**	1	**0.079**	ug/l	0.40	18.5	4500	103	P	
200	**Hg**	1	**-0.005**	ug/l	-0.02	10.0	45	209	P	
205	**Tl**	1	**0.047**	ug/l	0.23	20.1	4500	165	P	
208	**Pb**	1	**0.076**	ug/l	0.38	8.0	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	2159.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	56966	1.76	81580	**69.8**	30	-	125	
45	Sc	1	1348512	3.27	1568000	**86.0**	30	-	125	
74	Ge	1	3762399	0.80	3965000	**94.9**	30	-	125	
103	Rh	1	5581298	1.00	5756000	**97.0**	30	-	125	
165	Ho	1	2885789	0.55	2702000	**106.8**	30	-	125	
175	Lu	1	2537178	1.81	2349000	**108.0**	30	-	125	
209	Bi	1	3206434	1.07	2910000	**110.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\169SMPL.D\169SMPL.D#
Date Acquired: Sep 16 2011 03:29 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-24-A Vial Number: 2508
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.007**	ug/l	-0.04	90.1	900	6	P	
23	**Na**	1	**796.700**	ug/l	3,983.50	2.8	450000	6	A	
24	**Mg**	1	**55.160**	ug/l	275.80	1.4	450000	6	P	
27	**Al**	1	**9.333**	ug/l	46.67	2.0	450000	6	P	
31	**P**	1	**16.630**	ug/l	83.15	15.7	450000	6	P	
39	**K**	1	**53.150**	ug/l	265.75	8.7	450000	45	P	
44	**Ca**	1	**285.600**	ug/l	1,428.00	4.4	450000	45	P	
47	**Ti**	1	**0.637**	ug/l	3.19	3.5	4500	45	P	
51	**V**	1	**0.241**	ug/l	1.20	7.6	4500	45	P	
52	**Cr**	1	**0.268**	ug/l	1.34	6.0	4500	45	P	
55	**Mn**	1	**22.920**	ug/l	114.60	3.3	4500	45	P	
57	**Fe**	1	**4.997**	ug/l	24.99	4.7	450000	74	P	
59	**Co**	1	**0.010**	ug/l	0.05	25.2	4500	45	P	
60	**Ni**	1	**0.127**	ug/l	0.63	7.9	4500	45	P	
63	**Cu**	1	**0.054**	ug/l	0.27	43.0	4500	45	P	
66	**Zn**	1	**5.773**	ug/l	28.87	1.5	4500	74	P	
75	**As**	1	**52.160**	ug/l	260.80	4.0	4500	45	P	
78	**Se**	1	**-0.063**	ug/l	-0.32	104.4	4500	45	P	
88	**Sr**	1	**0.775**	ug/l	3.88	5.5	4500	45	P	
95	**Mo**	1	**0.027**	ug/l	0.13	19.8	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.03	15.4	4500	103	P	
111	**Cd**	1	**-0.001**	ug/l	-0.01	591.2	4500	103	P	
118	**Sn**	1	**0.079**	ug/l	0.39	27.9	4500	103	P	
123	**Sb**	1	**0.015**	ug/l	0.08	43.7	4500	103	P	
135	**Ba**	1	**0.123**	ug/l	0.62	37.4	4500	103	P	
200	**Hg**	1	**-0.008**	ug/l	-0.04	21.4	45	209	P	
205	**Tl**	1	**0.035**	ug/l	0.18	26.6	4500	165	P	
208	**Pb**	1	**0.076**	ug/l	0.38	22.9	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	106.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57342	1.23	81580	**70.3**	30	-	125	
45	Sc	1	1358475	3.98	1568000	**86.6**	30	-	125	
74	Ge	1	3752790	1.03	3965000	**94.6**	30	-	125	
103	Rh	1	5632160	1.30	5756000	**97.8**	30	-	125	
165	Ho	1	2905888	2.12	2702000	**107.5**	30	-	125	
175	Lu	1	2537421	0.95	2349000	**108.0**	30	-	125	
209	Bi	1	3245404	1.39	2910000	**111.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\170SMPL.D\170SMPL.D#
Date Acquired: Sep 16 2011 03:33 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-25-A Vial Number: 2509
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.023**	ug/l	-0.11	0.0	900	6	P	
23	**Na**	1	**1248.000**	ug/l	6,240.00	1.1	450000	6	A	
24	**Mg**	1	**238.500**	ug/l	1,192.50	0.8	450000	6	P	
27	**Al**	1	**27.330**	ug/l	136.65	5.2	450000	6	P	
31	**P**	1	**24.200**	ug/l	121.00	15.7	450000	6	P	
39	**K**	1	**19.170**	ug/l	95.85	28.6	450000	45	P	
44	**Ca**	1	**763.100**	ug/l	3,815.50	4.1	450000	45	P	
47	**Ti**	1	**0.512**	ug/l	2.56	7.4	4500	45	P	
51	**V**	1	**0.637**	ug/l	3.19	4.9	4500	45	P	
52	**Cr**	1	**0.240**	ug/l	1.20	11.5	4500	45	P	
55	**Mn**	1	**0.668**	ug/l	3.34	2.7	4500	45	P	
57	**Fe**	1	**4.850**	ug/l	24.25	9.2	450000	74	P	
59	**Co**	1	**0.004**	ug/l	0.02	21.2	4500	45	P	
60	**Ni**	1	**0.150**	ug/l	0.75	10.4	4500	45	P	
63	**Cu**	1	**0.079**	ug/l	0.40	24.3	4500	45	P	
66	**Zn**	1	**10.680**	ug/l	53.40	3.4	4500	74	P	
75	**As**	1	**40.340**	ug/l	201.70	4.8	4500	45	P	
78	**Se**	1	**0.001**	ug/l	0.01	6897.7	4500	45	P	
88	**Sr**	1	**2.999**	ug/l	15.00	2.8	4500	45	P	
95	**Mo**	1	**0.024**	ug/l	0.12	49.5	4500	74	P	
109	**Ag**	1	**0.004**	ug/l	0.02	49.4	4500	103	P	
111	**Cd**	1	**-0.002**	ug/l	-0.01	303.8	4500	103	P	
118	**Sn**	1	**0.072**	ug/l	0.36	4.2	4500	103	P	
123	**Sb**	1	**0.013**	ug/l	0.07	66.3	4500	103	P	
135	**Ba**	1	**0.070**	ug/l	0.35	51.1	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.03	44.0	45	209	P	
205	**Tl**	1	**0.032**	ug/l	0.16	21.6	4500	165	P	
208	**Pb**	1	**0.069**	ug/l	0.34	7.1	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	1126.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	58732	1.07	81580	**72.0**	30	-	125	
45	Sc	1	1362153	3.91	1568000	**86.9**	30	-	125	
74	Ge	1	3768382	0.83	3965000	**95.0**	30	-	125	
103	Rh	1	5614161	0.53	5756000	**97.5**	30	-	125	
165	Ho	1	2856246	1.87	2702000	**105.7**	30	-	125	
175	Lu	1	2536561	1.72	2349000	**108.0**	30	-	125	
209	Bi	1	3259655	1.57	2910000	**112.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\171SMPL.D\171SMPL.D#
Date Acquired: Sep 16 2011 03:38 am Acq. Method: 00He_ALL.M
Sample Name: 580-28495-A-26-A Vial Number: 2510
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.009**	ug/l	-0.05	68.2	900	6	P	
23	**Na**	1	**1155.000**	ug/l	5,775.00	1.2	450000	6	A	
24	**Mg**	1	**93.090**	ug/l	465.45	1.2	450000	6	P	
27	**Al**	1	**30.860**	ug/l	154.30	2.3	450000	6	P	
31	**P**	1	**24.750**	ug/l	123.75	9.3	450000	6	P	
39	**K**	1	**21.780**	ug/l	108.90	21.9	450000	45	P	
44	**Ca**	1	**418.300**	ug/l	2,091.50	1.5	450000	45	P	
47	**Ti**	1	**0.823**	ug/l	4.11	5.9	4500	45	P	
51	**V**	1	**0.545**	ug/l	2.73	7.9	4500	45	P	
52	**Cr**	1	**0.293**	ug/l	1.46	16.8	4500	45	P	
55	**Mn**	1	**0.853**	ug/l	4.26	5.3	4500	45	P	
57	**Fe**	1	**14.270**	ug/l	71.35	3.1	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.04	24.4	4500	45	P	
60	**Ni**	1	**0.113**	ug/l	0.57	14.7	4500	45	P	
63	**Cu**	1	**0.132**	ug/l	0.66	21.4	4500	45	P	
66	**Zn**	1	**8.210**	ug/l	41.05	0.6	4500	74	P	
75	**As**	1	**49.460**	ug/l	247.30	2.1	4500	45	P	
78	**Se**	1	**-0.014**	ug/l	-0.07	696.2	4500	45	P	
88	**Sr**	1	**1.295**	ug/l	6.48	3.4	4500	45	P	
95	**Mo**	1	**0.029**	ug/l	0.14	32.9	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.03	34.8	4500	103	P	
111	**Cd**	1	**-0.004**	ug/l	-0.02	156.2	4500	103	P	
118	**Sn**	1	**0.067**	ug/l	0.34	26.0	4500	103	P	
123	**Sb**	1	**0.015**	ug/l	0.07	23.2	4500	103	P	
135	**Ba**	1	**0.046**	ug/l	0.23	36.1	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.03	34.6	45	209	P	
205	**Tl**	1	**0.031**	ug/l	0.15	22.1	4500	165	P	
208	**Pb**	1	**0.182**	ug/l	0.91	2.5	4500	209	P	
238	**U**	1	**0.001**	ug/l	0.01	39.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57810	0.61	81580	**70.9**	30	-	125	
45	Sc	1	1331777	2.35	1568000	**84.9**	30	-	125	
74	Ge	1	3725522	0.46	3965000	**94.0**	30	-	125	
103	Rh	1	5547779	1.25	5756000	**96.4**	30	-	125	
165	Ho	1	2867729	0.59	2702000	**106.1**	30	-	125	
175	Lu	1	2520385	1.25	2349000	**107.3**	30	-	125	
209	Bi	1	3227679	1.26	2910000	**110.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\172SMPL.D\172SMPL.D#
Date Acquired: Sep 16 2011 03:42 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.580**	ug/l	49.58	1.3	900	6	P	
23	**Na**	1	**4957.000**	ug/l	4,957.00	1.4	450000	6	A	
24	**Mg**	1	**5045.000**	ug/l	5,045.00	1.9	450000	6	A	
27	**Al**	1	**511.800**	ug/l	511.80	1.1	450000	6	P	
31	**P**	1	**4835.000**	ug/l	4,835.00	1.1	450000	6	P	
39	**K**	1	**4397.000**	ug/l	4,397.00	0.9	450000	45	A	
44	**Ca**	1	**4650.000**	ug/l	4,650.00	1.9	450000	45	P	
47	**Ti**	1	**46.760**	ug/l	46.76	2.2	4500	45	P	
51	**V**	1	**47.960**	ug/l	47.96	2.0	4500	45	P	
52	**Cr**	1	**48.720**	ug/l	48.72	1.9	4500	45	P	
55	**Mn**	1	**49.370**	ug/l	49.37	1.6	4500	45	P	
57	**Fe**	1	**4508.000**	ug/l	4,508.00	0.5	450000	74	P	
59	**Co**	1	**47.820**	ug/l	47.82	2.2	4500	45	P	
60	**Ni**	1	**49.700**	ug/l	49.70	2.3	4500	45	P	
63	**Cu**	1	**50.810**	ug/l	50.81	2.6	4500	45	P	
66	**Zn**	1	**47.650**	ug/l	47.65	0.4	4500	74	P	
75	**As**	1	**51.100**	ug/l	51.10	2.3	4500	45	P	
78	**Se**	1	**51.560**	ug/l	51.56	2.1	4500	45	P	
88	**Sr**	1	**51.820**	ug/l	51.82	2.2	4500	45	P	
95	**Mo**	1	**47.230**	ug/l	47.23	0.9	4500	74	P	
109	**Ag**	1	**46.060**	ug/l	46.06	1.3	4500	103	P	
111	**Cd**	1	**48.230**	ug/l	48.23	0.8	4500	103	P	
118	**Sn**	1	**47.350**	ug/l	47.35	1.0	4500	103	P	
123	**Sb**	1	**48.210**	ug/l	48.21	1.1	4500	103	P	
135	**Ba**	1	**46.360**	ug/l	46.36	0.8	4500	103	P	
200	**Hg**	1	**2.340**	ug/l	2.34	0.1	45	209	P	
205	**Tl**	1	**48.430**	ug/l	48.43	3.7	4500	165	A	
208	**Pb**	1	**46.210**	ug/l	46.21	1.6	4500	209	P	
238	**U**	1	**49.810**	ug/l	49.81	0.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63901	1.68	81580	**78.3**	30	-	125	
45	Sc	1	1425083	1.86	1568000	**90.9**	30	-	125	
74	Ge	1	3830175	0.27	3965000	**96.6**	30	-	125	
103	Rh	1	5497531	0.71	5756000	**95.5**	30	-	125	
165	Ho	1	2867985	0.59	2702000	**106.1**	30	-	125	
175	Lu	1	2507808	0.95	2349000	**106.8**	30	-	125	
209	Bi	1	3141829	0.20	2910000	**108.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\173SMPL.D\173SMPL.D#
Date Acquired: Sep 16 2011 03:46 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.019**	ug/l	0.02	42.9	900	6	P	
23	Na	1	**38.380**	ug/l	38.38	10.6	450000	6	P	
24	Mg	1	**1.696**	ug/l	1.70	13.3	450000	6	P	
27	Al	1	**0.347**	ug/l	0.35	68.4	450000	6	P	
31	P	1	**0.970**	ug/l	0.97	256.4	450000	6	P	
39	K	1	**-23.670**	ug/l	-23.67	7.0	450000	45	P	
44	Ca	1	**1.125**	ug/l	1.13	51.1	450000	45	P	
47	Ti	1	**0.034**	ug/l	0.03	51.7	4500	45	P	
51	V	1	**-0.272**	ug/l	-0.27	9.1	4500	45	P	
52	Cr	1	**0.017**	ug/l	0.02	42.2	4500	45	P	
55	Mn	1	**0.044**	ug/l	0.04	17.3	4500	45	P	
57	Fe	1	**2.459**	ug/l	2.46	31.7	450000	74	P	
59	Co	1	**0.021**	ug/l	0.02	39.5	4500	45	P	
60	Ni	1	**0.017**	ug/l	0.02	34.4	4500	45	P	
63	Cu	1	**0.090**	ug/l	0.09	15.7	4500	45	P	
66	Zn	1	**0.013**	ug/l	0.01	254.7	4500	74	P	
75	As	1	**-0.010**	ug/l	-0.01	31.6	4500	45	P	
78	Se	1	**0.032**	ug/l	0.03	222.5	4500	45	P	
88	Sr	1	**0.016**	ug/l	0.02	27.9	4500	45	P	
95	Mo	1	**0.095**	ug/l	0.09	12.4	4500	74	P	
109	Ag	1	**0.011**	ug/l	0.01	9.3	4500	103	P	
111	Cd	1	**0.008**	ug/l	0.01	112.1	4500	103	P	
118	Sn	1	**0.172**	ug/l	0.17	19.0	4500	103	P	
123	Sb	1	**0.051**	ug/l	0.05	42.0	4500	103	P	
135	Ba	1	**0.014**	ug/l	0.01	148.6	4500	103	P	
200	Hg	1	**-0.002**	ug/l	0.00	243.0	45	209	P	
205	Tl	1	**0.318**	ug/l	0.32	8.6	4500	165	P	
208	Pb	1	**0.021**	ug/l	0.02	27.7	4500	209	P	
238	U	1	**0.031**	ug/l	0.03	22.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62625	2.55	81580	**76.8**	30	-	125	
45	Sc	1	1415743	2.56	1568000	**90.3**	30	-	125	
74	Ge	1	3845865	1.13	3965000	**97.0**	30	-	125	
103	Rh	1	5684401	0.40	5756000	**98.8**	30	-	125	
165	Ho	1	2907282	2.66	2702000	**107.6**	30	-	125	
175	Lu	1	2560799	1.24	2349000	**109.0**	30	-	125	
209	Bi	1	3229526	1.84	2910000	**111.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\174SMPL.D\174SMPL.D#
Date Acquired: Sep 16 2011 03:51 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95447/18-A Vial Number: 2101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **100.00** Final Dil Factor: **100.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.007**	ug/l	-0.69	3.1	900	6	P	
23	**Na**	1	**39.390**	ug/l	3,939.00	2.6	450000	6	P	
24	**Mg**	1	**0.470**	ug/l	46.96	28.8	450000	6	P	
27	**Al**	1	**1.418**	ug/l	141.80	10.8	450000	6	P	
31	**P**	1	**0.287**	ug/l	28.70	539.4	450000	6	P	
39	**K**	1	**-22.550**	ug/l	-2,255.00	8.0	450000	45	P	
44	**Ca**	1	**0.158**	ug/l	15.84	224.4	450000	45	P	
47	**Ti**	1	**0.009**	ug/l	0.92	60.6	4500	45	P	
51	**V**	1	**-0.241**	ug/l	-24.05	3.7	4500	45	P	
52	**Cr**	1	**0.004**	ug/l	0.38	152.4	4500	45	P	
55	**Mn**	1	**0.036**	ug/l	3.57	29.2	4500	45	P	
57	**Fe**	1	**0.717**	ug/l	71.65	5.9	450000	74	P	
59	**Co**	1	**0.005**	ug/l	0.53	72.1	4500	45	P	
60	**Ni**	1	**0.066**	ug/l	6.63	15.5	4500	45	P	
63	**Cu**	1	**0.095**	ug/l	9.47	41.4	4500	45	P	
66	**Zn**	1	**0.178**	ug/l	17.84	15.0	4500	74	P	
75	**As**	1	**-0.014**	ug/l	-1.41	96.2	4500	45	P	
78	**Se**	1	**0.109**	ug/l	10.89	144.2	4500	45	P	
88	**Sr**	1	**0.007**	ug/l	0.72	24.3	4500	45	P	
95	**Mo**	1	**0.040**	ug/l	4.03	63.1	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.24	80.8	4500	103	P	
111	**Cd**	1	**-0.004**	ug/l	-0.37	184.3	4500	103	P	
118	**Sn**	1	**0.073**	ug/l	7.33	28.4	4500	103	P	
123	**Sb**	1	**0.021**	ug/l	2.07	61.0	4500	103	P	
135	**Ba**	1	**0.037**	ug/l	3.69	25.9	4500	103	P	
200	**Hg**	1	**-0.001**	ug/l	-0.13	284.0	45	209	P	
205	**Tl**	1	**0.103**	ug/l	10.28	16.8	4500	165	P	
208	**Pb**	1	**0.088**	ug/l	8.84	14.5	4500	209	P	
238	**U**	1	**0.006**	ug/l	0.62	30.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62256	1.36	81580	**76.3**	30	-	125	
45	Sc	1	1382456	2.07	1568000	**88.2**	30	-	125	
74	Ge	1	3793304	0.49	3965000	**95.7**	30	-	125	
103	Rh	1	5572742	1.44	5756000	**96.8**	30	-	125	
165	Ho	1	2874244	1.72	2702000	**106.4**	30	-	125	
175	Lu	1	2539224	1.06	2349000	**108.1**	30	-	125	
209	Bi	1	3255649	1.24	2910000	**111.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\175SMPL.D\175SMPL.D#
Date Acquired: Sep 16 2011 03:55 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-12-G SD Vial Number: 2102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **500.00** Final Dil Factor: **500.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.014**	ug/l	-7.04	20.1	900	6	P	
23	**Na**	1	**60.330**	ug/l	30,165.00	5.7	450000	6	P	
24	**Mg**	1	**471.900**	ug/l	235,950.00	2.8	450000	6	P	
27	**Al**	1	**687.200**	ug/l	343,600.00	3.4	450000	6	P	
31	**P**	1	**69.970**	ug/l	34,985.00	5.4	450000	6	P	
39	**K**	1	**474.000**	ug/l	237,000.00	3.8	450000	45	P	
44	**Ca**	1	**80.000**	ug/l	40,000.00	3.1	450000	45	P	
47	**Ti**	1	**164.600**	ug/l	82,300.00	2.6	4500	45	P	
51	**V**	1	**5.688**	ug/l	2,844.00	1.9	4500	45	P	
52	**Cr**	1	**0.321**	ug/l	160.35	2.5	4500	45	P	
55	**Mn**	1	**23.400**	ug/l	11,700.00	2.9	4500	45	P	
57	**Fe**	1	**12690.000**	ug/l	6,345,000.00	3.3	450000	74	A	
59	**Co**	1	**0.909**	ug/l	454.30	3.4	4500	45	P	
60	**Ni**	1	**0.323**	ug/l	161.70	11.2	4500	45	P	
63	**Cu**	1	**83.800**	ug/l	41,900.00	3.7	4500	45	P	
66	**Zn**	1	**6.975**	ug/l	3,487.50	3.2	4500	74	P	
75	**As**	1	**1010.000**	ug/l	505,000.00	3.1	4500	45	A	
78	**Se**	1	**0.299**	ug/l	149.35	28.4	4500	45	P	
88	**Sr**	1	**0.662**	ug/l	331.10	2.7	4500	45	P	
95	**Mo**	1	**0.251**	ug/l	125.25	15.9	4500	74	P	
109	**Ag**	1	**5.698**	ug/l	2,849.00	0.3	4500	103	P	
111	**Cd**	1	**0.010**	ug/l	4.80	173.8	4500	103	P	
118	**Sn**	1	**0.610**	ug/l	304.95	1.3	4500	103	P	
123	**Sb**	1	**0.716**	ug/l	357.80	4.9	4500	103	P	
135	**Ba**	1	**18.520**	ug/l	9,260.00	1.7	4500	103	P	
200	**Hg**	1	**0.113**	ug/l	56.45	0.3	45	209	P	
205	**Tl**	1	**0.089**	ug/l	44.53	7.7	4500	165	P	
208	**Pb**	1	**87.830**	ug/l	43,915.00	1.4	4500	209	A	
238	**U**	1	**0.052**	ug/l	26.09	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63283	2.13	81580	**77.6**	30	-	125	
45	Sc	1	1428884	3.06	1568000	**91.1**	30	-	125	
74	Ge	1	3836463	2.07	3965000	**96.8**	30	-	125	
103	Rh	1	5604022	0.61	5756000	**97.4**	30	-	125	
165	Ho	1	2930920	1.76	2702000	**108.5**	30	-	125	
175	Lu	1	2565001	0.49	2349000	**109.2**	30	-	125	
209	Bi	1	3325329	0.74	2910000	**114.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\176SMPL.D\176SMPL.D#
Date Acquired: Sep 16 2011 04:00 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-12-G Vial Number: 2103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **100.00** Final Dil Factor: **100.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.014**	ug/l	1.36	77.5	900	6	P	
23	**Na**	1	**175.100**	ug/l	17,510.00	3.2	450000	6	P	
24	**Mg**	1	**2313.000**	ug/l	231,300.00	3.6	450000	6	A	
27	**Al**	1	**3336.000**	ug/l	333,600.00	4.5	450000	6	A	
31	**P**	1	**347.800**	ug/l	34,780.00	0.4	450000	6	P	
39	**K**	1	**2393.000**	ug/l	239,300.00	1.6	450000	45	A	
44	**Ca**	1	**404.300**	ug/l	40,430.00	1.5	450000	45	P	
47	**Ti**	1	**813.200**	ug/l	81,320.00	1.1	4500	45	P	
51	**V**	1	**29.120**	ug/l	2,912.00	1.6	4500	45	P	
52	**Cr**	1	**1.646**	ug/l	164.60	1.2	4500	45	P	
55	**Mn**	1	**114.400**	ug/l	11,440.00	0.9	4500	45	P	
57	**Fe**	1	**60590.000**	ug/l	6,059,000.00	1.7	450000	74	A	
59	**Co**	1	**4.367**	ug/l	436.70	1.4	4500	45	P	
60	**Ni**	1	**1.720**	ug/l	172.00	8.8	4500	45	P	
63	**Cu**	1	**410.200**	ug/l	41,020.00	1.1	4500	45	A	
66	**Zn**	1	**34.390**	ug/l	3,439.00	1.6	4500	74	P	
75	**As**	1	**4879.000**	ug/l	487,900.00	0.6	4500	45	A	Fail
78	**Se**	1	**1.841**	ug/l	184.10	9.8	4500	45	P	
88	**Sr**	1	**3.131**	ug/l	313.10	4.3	4500	45	P	
95	**Mo**	1	**1.237**	ug/l	123.70	3.0	4500	74	P	
109	**Ag**	1	**28.370**	ug/l	2,837.00	1.3	4500	103	P	
111	**Cd**	1	**0.065**	ug/l	6.52	14.8	4500	103	P	
118	**Sn**	1	**2.856**	ug/l	285.60	3.1	4500	103	P	
123	**Sb**	1	**3.623**	ug/l	362.30	4.0	4500	103	P	
135	**Ba**	1	**94.000**	ug/l	9,400.00	1.4	4500	103	P	
200	**Hg**	1	**0.522**	ug/l	52.20	4.8	45	209	P	
205	**Tl**	1	**0.194**	ug/l	19.38	4.9	4500	165	P	
208	**Pb**	1	**381.100**	ug/l	38,110.00	0.4	4500	209	A	
238	**U**	1	**0.242**	ug/l	24.15	4.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59751	2.24	81580	**73.2**	30	-	125	
45	Sc	1	1346841	1.91	1568000	**85.9**	30	-	125	
74	Ge	1	3625854	0.55	3965000	**91.4**	30	-	125	
103	Rh	1	5220716	1.26	5756000	**90.7**	30	-	125	
165	Ho	1	2796364	1.67	2702000	**103.5**	30	-	125	
175	Lu	1	2468256	1.66	2349000	**105.1**	30	-	125	
209	Bi	1	3574233	1.29	2910000	**122.8**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\177SMPL.D\177SMPL.D#
Date Acquired: Sep 16 2011 04:04 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-12-H MS Vial Number: 2104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **100.00** Final Dil Factor: **100.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.001**	ug/l	100.10	2.6	900	6	P	
23	**Na**	1	**421.500**	ug/l	42,150.00	2.6	450000	6	P	
24	**Mg**	1	**2663.000**	ug/l	266,300.00	2.7	450000	6	A	
27	**Al**	1	**3851.000**	ug/l	385,100.00	1.9	450000	6	A	
31	**P**	1	**548.400**	ug/l	54,840.00	4.2	450000	6	P	
39	**K**	1	**2695.000**	ug/l	269,500.00	2.1	450000	45	A	
44	**Ca**	1	**673.700**	ug/l	67,370.00	3.4	450000	45	P	
47	**Ti**	1	**911.200**	ug/l	91,120.00	3.6	4500	45	P	
51	**V**	1	**40.740**	ug/l	4,074.00	3.7	4500	45	P	
52	**Cr**	1	**5.799**	ug/l	579.90	4.5	4500	45	P	
55	**Mn**	1	**132.700**	ug/l	13,270.00	3.4	4500	45	P	
57	**Fe**	1	**64340.000**	ug/l	6,434,000.00	1.0	450000	74	A	
59	**Co**	1	**13.920**	ug/l	1,392.00	3.7	4500	45	P	
60	**Ni**	1	**12.090**	ug/l	1,209.00	2.6	4500	45	P	
63	**Cu**	1	**419.000**	ug/l	41,900.00	3.9	4500	45	A	
66	**Zn**	1	**116.600**	ug/l	11,660.00	1.6	4500	74	P	
75	**As**	1	**4799.000**	ug/l	479,900.00	3.5	4500	45	A	Fail
78	**Se**	1	**35.020**	ug/l	3,502.00	1.8	4500	45	P	
88	**Sr**	1	**3.829**	ug/l	382.90	4.1	4500	45	P	
95	**Mo**	1	**48.480**	ug/l	4,848.00	0.9	4500	74	P	
109	**Ag**	1	**36.070**	ug/l	3,607.00	1.9	4500	103	P	
111	**Cd**	1	**1.533**	ug/l	153.30	2.2	4500	103	P	
118	**Sn**	1	**50.480**	ug/l	5,048.00	1.7	4500	103	P	
123	**Sb**	1	**13.740**	ug/l	1,374.00	2.1	4500	103	P	
135	**Ba**	1	**136.600**	ug/l	13,660.00	2.3	4500	103	P	
200	**Hg**	1	**0.909**	ug/l	90.85	2.7	45	209	P	
205	**Tl**	1	**39.000**	ug/l	3,900.00	2.8	4500	165	P	
208	**Pb**	1	**436.200**	ug/l	43,620.00	0.7	4500	209	A	
238	**U**	1	**0.250**	ug/l	24.97	3.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	57690	2.19	81580	**70.7**	30 - 125	
45	Sc	1	1313287	3.43	1568000	**83.8**	30 - 125	
74	Ge	1	3589162	0.58	3965000	**90.5**	30 - 125	
103	Rh	1	5192990	1.34	5756000	**90.2**	30 - 125	
165	Ho	1	2800894	1.12	2702000	**103.7**	30 - 125	
175	Lu	1	2452130	0.23	2349000	**104.4**	30 - 125	
209	Bi	1	3648469	1.12	2910000	**125.4**	30 - 125	**IS Fail**

Analytes: **Fail** **ISTD:** **Fail**

1 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\178SMPL.D\178SMPL.D#
Date Acquired: Sep 16 2011 04:08 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-12-I MSD Vial Number: 2105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **100.00** Final Dil Factor: **100.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.059**	ug/l	105.90	12.6	900	6	P	
23	**Na**	1	**440.300**	ug/l	44,030.00	1.1	450000	6	P	
24	**Mg**	1	**2795.000**	ug/l	279,500.00	0.8	450000	6	A	
27	**Al**	1	**3998.000**	ug/l	399,800.00	1.6	450000	6	A	
31	**P**	1	**577.200**	ug/l	57,720.00	0.9	450000	6	P	
39	**K**	1	**2923.000**	ug/l	292,300.00	0.7	450000	45	A	
44	**Ca**	1	**679.400**	ug/l	67,940.00	2.2	450000	45	P	
47	**Ti**	1	**957.200**	ug/l	95,720.00	1.2	4500	45	P	
51	**V**	1	**41.760**	ug/l	4,176.00	1.7	4500	45	P	
52	**Cr**	1	**5.829**	ug/l	582.90	2.7	4500	45	P	
55	**Mn**	1	**124.900**	ug/l	12,490.00	2.4	4500	45	P	
57	**Fe**	1	**66380.000**	ug/l	6,638,000.00	1.7	450000	74	A	
59	**Co**	1	**15.350**	ug/l	1,535.00	1.4	4500	45	P	
60	**Ni**	1	**12.270**	ug/l	1,227.00	3.4	4500	45	P	
63	**Cu**	1	**424.000**	ug/l	42,400.00	1.2	4500	45	A	
66	**Zn**	1	**47.300**	ug/l	4,730.00	0.4	4500	74	P	
75	**As**	1	**5490.000**	ug/l	549,000.00	2.2	4500	45	A	Fail
78	**Se**	1	**37.300**	ug/l	3,730.00	1.9	4500	45	P	
88	**Sr**	1	**4.090**	ug/l	409.00	2.7	4500	45	P	
95	**Mo**	1	**50.270**	ug/l	5,027.00	1.0	4500	74	P	
109	**Ag**	1	**38.940**	ug/l	3,894.00	1.1	4500	103	P	
111	**Cd**	1	**1.115**	ug/l	111.50	9.7	4500	103	P	
118	**Sn**	1	**51.950**	ug/l	5,195.00	0.9	4500	103	P	
123	**Sb**	1	**15.000**	ug/l	1,500.00	0.7	4500	103	P	
135	**Ba**	1	**143.200**	ug/l	14,320.00	0.2	4500	103	P	
200	**Hg**	1	**0.965**	ug/l	96.47	3.3	45	209	P	
205	**Tl**	1	**40.200**	ug/l	4,020.00	5.2	4500	165	M	
208	**Pb**	1	**460.500**	ug/l	46,050.00	1.4	4500	209	A	
238	**U**	1	**0.263**	ug/l	26.31	4.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57637	1.02	81580	**70.7**	30	-	125	
45	Sc	1	1320343	1.54	1568000	**84.2**	30	-	125	
74	Ge	1	3573787	0.82	3965000	**90.1**	30	-	125	
103	Rh	1	5218791	0.60	5756000	**90.7**	30	-	125	
165	Ho	1	2796097	0.66	2702000	**103.5**	30	-	125	
175	Lu	1	2446364	0.79	2349000	**104.1**	30	-	125	
209	Bi	1	3661123	1.49	2910000	**125.8**	30	-	125	**IS Fail**

Analytes: **Fail** **ISTD:** **Fail**

1 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\179SMPL.D\179SMPL.D#
Date Acquired: Sep 16 2011 04:12 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-12-G PDS Vial Number: 2106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **100.00** Final Dil Factor: **100.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.075**	ug/l	107.50	4.2	900	6	P	
23	**Na**	1	**444.400**	ug/l	44,440.00	2.0	450000	6	P	
24	**Mg**	1	**2788.000**	ug/l	278,800.00	0.7	450000	6	A	
27	**Al**	1	**4043.000**	ug/l	404,300.00	2.6	450000	6	A	
31	**P**	1	**605.500**	ug/l	60,550.00	4.4	450000	6	P	
39	**K**	1	**2797.000**	ug/l	279,700.00	1.2	450000	45	A	
44	**Ca**	1	**699.400**	ug/l	69,940.00	1.5	450000	45	P	
47	**Ti**	1	**944.400**	ug/l	94,440.00	0.9	4500	45	P	
51	**V**	1	**42.640**	ug/l	4,264.00	0.7	4500	45	P	
52	**Cr**	1	**6.164**	ug/l	616.40	1.8	4500	45	P	
55	**Mn**	1	**138.600**	ug/l	13,860.00	0.4	4500	45	P	
57	**Fe**	1	**67580.000**	ug/l	6,758,000.00	1.1	450000	74	A	
59	**Co**	1	**14.620**	ug/l	1,462.00	1.0	4500	45	P	
60	**Ni**	1	**12.870**	ug/l	1,287.00	1.7	4500	45	P	
63	**Cu**	1	**430.800**	ug/l	43,080.00	0.7	4500	45	A	
66	**Zn**	1	**122.600**	ug/l	12,260.00	0.9	4500	74	P	
75	**As**	1	**4962.000**	ug/l	496,200.00	0.3	4500	45	A	Fail
78	**Se**	1	**36.960**	ug/l	3,696.00	0.3	4500	45	P	
88	**Sr**	1	**3.984**	ug/l	398.40	0.8	4500	45	P	
95	**Mo**	1	**51.800**	ug/l	5,180.00	1.0	4500	74	P	
109	**Ag**	1	**37.300**	ug/l	3,730.00	1.1	4500	103	P	
111	**Cd**	1	**1.650**	ug/l	165.00	3.5	4500	103	P	
118	**Sn**	1	**53.100**	ug/l	5,310.00	1.2	4500	103	P	
123	**Sb**	1	**14.340**	ug/l	1,434.00	1.2	4500	103	P	
135	**Ba**	1	**140.300**	ug/l	14,030.00	0.8	4500	103	P	
200	**Hg**	1	**0.952**	ug/l	95.21	3.1	45	209	P	
205	**Tl**	1	**42.730**	ug/l	4,273.00	4.9	4500	165	M	
208	**Pb**	1	**448.900**	ug/l	44,890.00	1.5	4500	209	A	
238	**U**	1	**0.259**	ug/l	25.93	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57133	1.59	81580	**70.0**	30	-	125	
45	Sc	1	1296331	0.38	1568000	**82.7**	30	-	125	
74	Ge	1	3521988	0.20	3965000	**88.8**	30	-	125	
103	Rh	1	5178538	1.00	5756000	**90.0**	30	-	125	
165	Ho	1	2800918	1.80	2702000	**103.7**	30	-	125	
175	Lu	1	2443169	0.69	2349000	**104.0**	30	-	125	
209	Bi	1	3677034	1.97	2910000	**126.4**	30	-	125	**IS Fail**

Analytes: **Fail** **ISTD:** **Fail**

1 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\180SMPL.D\180SMPL.D#
Date Acquired: Sep 16 2011 04:17 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95447/19-A Vial Number: 2107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.052**	ug/l	102.60	4.4	900	6	P	
23	**Na**	1	**455.200**	ug/l	22,760.00	2.0	450000	6	P	
24	**Mg**	1	**424.500**	ug/l	21,225.00	2.1	450000	6	P	
27	**Al**	1	**85.740**	ug/l	4,287.00	3.2	450000	6	P	
31	**P**	1	**369.400**	ug/l	18,470.00	2.7	450000	6	P	
39	**K**	1	**343.300**	ug/l	17,165.00	2.0	450000	45	P	
44	**Ca**	1	**398.400**	ug/l	19,920.00	3.0	450000	45	P	
47	**Ti**	1	**94.420**	ug/l	4,721.00	1.3	4500	45	P	
51	**V**	1	**19.660**	ug/l	983.00	1.7	4500	45	P	
52	**Cr**	1	**8.125**	ug/l	406.25	1.6	4500	45	P	
55	**Mn**	1	**21.150**	ug/l	1,057.50	1.2	4500	45	P	
57	**Fe**	1	**445.900**	ug/l	22,295.00	2.5	450000	74	P	
59	**Co**	1	**20.540**	ug/l	1,027.00	1.2	4500	45	P	
60	**Ni**	1	**21.050**	ug/l	1,052.50	2.6	4500	45	P	
63	**Cu**	1	**11.090**	ug/l	554.50	1.5	4500	45	P	
66	**Zn**	1	**21.050**	ug/l	1,052.50	2.5	4500	74	P	
75	**As**	1	**89.620**	ug/l	4,481.00	2.1	4500	45	P	
78	**Se**	1	**88.210**	ug/l	4,410.50	1.4	4500	45	P	
88	**Sr**	1	**0.018**	ug/l	0.90	74.7	4500	45	P	
95	**Mo**	1	**101.200**	ug/l	5,060.00	2.5	4500	74	P	
109	**Ag**	1	**11.740**	ug/l	587.00	0.6	4500	103	P	
111	**Cd**	1	**1.949**	ug/l	97.45	8.3	4500	103	P	
118	**Sn**	1	**99.190**	ug/l	4,959.50	1.2	4500	103	P	
123	**Sb**	1	**58.240**	ug/l	2,912.00	1.5	4500	103	P	
135	**Ba**	1	**76.600**	ug/l	3,830.00	1.4	4500	103	P	
200	**Hg**	1	**0.959**	ug/l	47.94	1.9	45	209	P	
205	**Tl**	1	**81.600**	ug/l	4,080.00	4.2	4500	165	A	
208	**Pb**	1	**19.610**	ug/l	980.50	2.6	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	5186.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60195	1.44	81580	**73.8**	30	-	125	
45	Sc	1	1324072	1.43	1568000	**84.4**	30	-	125	
74	Ge	1	3651279	2.02	3965000	**92.1**	30	-	125	
103	Rh	1	5405464	0.74	5756000	**93.9**	30	-	125	
165	Ho	1	2880402	0.97	2702000	**106.6**	30	-	125	
175	Lu	1	2536399	2.43	2349000	**108.0**	30	-	125	
209	Bi	1	3274649	1.85	2910000	**112.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\181SMPL.D\181SMPL.D#
Date Acquired: Sep 16 2011 04:21 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95447/20-A Vial Number: 2108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.071**	ug/l	103.55	5.6	900	6	P	
23	**Na**	1	**459.100**	ug/l	22,955.00	0.7	450000	6	P	
24	**Mg**	1	**418.000**	ug/l	20,900.00	0.5	450000	6	P	
27	**Al**	1	**86.420**	ug/l	4,321.00	0.2	450000	6	P	
31	**P**	1	**360.300**	ug/l	18,015.00	1.4	450000	6	P	
39	**K**	1	**339.600**	ug/l	16,980.00	3.7	450000	45	P	
44	**Ca**	1	**396.900**	ug/l	19,845.00	3.3	450000	45	P	
47	**Ti**	1	**94.300**	ug/l	4,715.00	1.7	4500	45	P	
51	**V**	1	**19.680**	ug/l	984.00	2.9	4500	45	P	
52	**Cr**	1	**8.185**	ug/l	409.25	2.1	4500	45	P	
55	**Mn**	1	**21.010**	ug/l	1,050.50	2.4	4500	45	P	
57	**Fe**	1	**421.700**	ug/l	21,085.00	1.4	450000	74	P	
59	**Co**	1	**20.370**	ug/l	1,018.50	1.9	4500	45	P	
60	**Ni**	1	**21.070**	ug/l	1,053.50	2.7	4500	45	P	
63	**Cu**	1	**10.920**	ug/l	546.00	2.0	4500	45	P	
66	**Zn**	1	**20.680**	ug/l	1,034.00	2.4	4500	74	P	
75	**As**	1	**87.480**	ug/l	4,374.00	3.0	4500	45	P	
78	**Se**	1	**86.370**	ug/l	4,318.50	2.4	4500	45	P	
88	**Sr**	1	**0.122**	ug/l	6.12	6.9	4500	45	P	
95	**Mo**	1	**101.000**	ug/l	5,050.00	1.0	4500	74	P	
109	**Ag**	1	**11.740**	ug/l	587.00	2.3	4500	103	P	
111	**Cd**	1	**1.987**	ug/l	99.35	1.7	4500	103	P	
118	**Sn**	1	**98.150**	ug/l	4,907.50	1.3	4500	103	P	
123	**Sb**	1	**57.600**	ug/l	2,880.00	1.3	4500	103	P	
135	**Ba**	1	**76.070**	ug/l	3,803.50	1.1	4500	103	P	
200	**Hg**	1	**0.953**	ug/l	47.67	2.0	45	209	P	
205	**Tl**	1	**80.680**	ug/l	4,034.00	3.3	4500	165	A	
208	**Pb**	1	**19.160**	ug/l	958.00	1.1	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	1064.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	58986	0.69	81580	**72.3**	30	-	125	
45	Sc	1	1281603	2.10	1568000	**81.7**	30	-	125	
74	Ge	1	3522582	0.46	3965000	**88.8**	30	-	125	
103	Rh	1	5277482	0.71	5756000	**91.7**	30	-	125	
165	Ho	1	2809507	1.80	2702000	**104.0**	30	-	125	
175	Lu	1	2494583	1.88	2349000	**106.2**	30	-	125	
209	Bi	1	3208516	0.96	2910000	**110.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\182SMPL.D\182SMPL.D#
Date Acquired: Sep 16 2011 04:25 am Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-95447/21-A Vial Number: 2109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**47.000**	ug/l	940.00	2.1	900	6	P	
23	**Na**	1	**421.800**	ug/l	8,436.00	2.1	450000	6	P	
24	**Mg**	1	**1552.000**	ug/l	31,040.00	0.8	450000	6	A	
27	**Al**	1	**4262.000**	ug/l	85,240.00	1.3	450000	6	A	
31	**P**	1	**242.600**	ug/l	4,852.00	4.6	450000	6	P	
39	**K**	1	**1184.000**	ug/l	23,680.00	4.5	450000	45	A	
44	**Ca**	1	**3293.000**	ug/l	65,860.00	2.9	450000	45	P	
47	**Ti**	1	**106.200**	ug/l	2,124.00	2.5	4500	45	P	
51	**V**	1	**56.740**	ug/l	1,134.80	2.4	4500	45	P	
52	**Cr**	1	**48.490**	ug/l	969.80	3.2	4500	45	P	
55	**Mn**	1	**252.100**	ug/l	5,042.00	3.1	4500	45	A	
57	**Fe**	1	**7085.000**	ug/l	141,700.00	0.7	450000	74	A	
59	**Co**	1	**72.220**	ug/l	1,444.40	4.1	4500	45	P	
60	**Ni**	1	**59.240**	ug/l	1,184.80	4.2	4500	45	P	
63	**Cu**	1	**39.350**	ug/l	787.00	4.6	4500	45	P	
66	**Zn**	1	**155.000**	ug/l	3,100.00	1.7	4500	74	P	
75	**As**	1	**60.030**	ug/l	1,200.60	4.0	4500	45	P	
78	**Se**	1	**118.100**	ug/l	2,362.00	3.6	4500	45	P	
88	**Sr**	1	**62.520**	ug/l	1,250.40	3.6	4500	45	P	
95	**Mo**	1	**48.520**	ug/l	970.40	1.5	4500	74	P	
109	**Ag**	1	**25.340**	ug/l	506.80	1.8	4500	103	P	
111	**Cd**	1	**57.510**	ug/l	1,150.20	0.8	4500	103	P	
118	**Sn**	1	**69.260**	ug/l	1,385.20	0.6	4500	103	P	
123	**Sb**	1	**112.100**	ug/l	2,242.00	0.2	4500	103	P	
135	**Ba**	1	**160.100**	ug/l	3,202.00	0.3	4500	103	P	
200	**Hg**	1	**8.298**	ug/l	165.96	2.4	45	209	P	
205	**Tl**	1	**91.880**	ug/l	1,837.60	4.5	4500	165	A	
208	**Pb**	1	**83.630**	ug/l	1,672.60	1.5	4500	209	A	
238	**U**	1	**0.557**	ug/l	11.14	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62107	1.01	81580	**76.1**	30	-	125	
45	Sc	1	1348980	3.08	1568000	**86.0**	30	-	125	
74	Ge	1	3613117	0.77	3965000	**91.1**	30	-	125	
103	Rh	1	5332259	0.15	5756000	**92.6**	30	-	125	
165	Ho	1	2887644	0.63	2702000	**106.9**	30	-	125	
175	Lu	1	2513179	1.52	2349000	**107.0**	30	-	125	
209	Bi	1	3192555	1.69	2910000	**109.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\183SMPL.D\183SMPL.D#
Date Acquired: Sep 16 2011 04:30 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.110**	ug/l	49.11	1.5	900	6	P	
23	**Na**	1	**4874.000**	ug/l	4,874.00	2.4	450000	6	A	
24	**Mg**	1	**4906.000**	ug/l	4,906.00	2.0	450000	6	A	
27	**Al**	1	**496.100**	ug/l	496.10	1.3	450000	6	P	
31	**P**	1	**4496.000**	ug/l	4,496.00	1.7	450000	6	P	
39	**K**	1	**4353.000**	ug/l	4,353.00	1.6	450000	45	A	
44	**Ca**	1	**4637.000**	ug/l	4,637.00	1.5	450000	45	P	
47	**Ti**	1	**47.440**	ug/l	47.44	1.6	4500	45	P	
51	**V**	1	**47.760**	ug/l	47.76	1.0	4500	45	P	
52	**Cr**	1	**48.990**	ug/l	48.99	1.7	4500	45	P	
55	**Mn**	1	**50.370**	ug/l	50.37	1.4	4500	45	P	
57	**Fe**	1	**4518.000**	ug/l	4,518.00	1.8	450000	74	P	
59	**Co**	1	**48.190**	ug/l	48.19	2.4	4500	45	P	
60	**Ni**	1	**49.660**	ug/l	49.66	1.3	4500	45	P	
63	**Cu**	1	**50.760**	ug/l	50.76	1.7	4500	45	P	
66	**Zn**	1	**47.480**	ug/l	47.48	1.8	4500	74	P	
75	**As**	1	**50.600**	ug/l	50.60	1.9	4500	45	P	
78	**Se**	1	**51.230**	ug/l	51.23	2.1	4500	45	P	
88	**Sr**	1	**51.670**	ug/l	51.67	1.5	4500	45	P	
95	**Mo**	1	**47.370**	ug/l	47.37	1.3	4500	74	P	
109	**Ag**	1	**46.420**	ug/l	46.42	2.7	4500	103	P	
111	**Cd**	1	**48.770**	ug/l	48.77	1.9	4500	103	P	
118	**Sn**	1	**47.560**	ug/l	47.56	2.3	4500	103	P	
123	**Sb**	1	**48.720**	ug/l	48.72	1.7	4500	103	P	
135	**Ba**	1	**46.800**	ug/l	46.80	2.4	4500	103	P	
200	**Hg**	1	**2.365**	ug/l	2.37	1.7	45	209	P	
205	**Tl**	1	**50.290**	ug/l	50.29	5.8	4500	165	A	
208	**Pb**	1	**46.540**	ug/l	46.54	1.7	4500	209	P	
238	**U**	1	**51.010**	ug/l	51.01	1.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62561	1.15	81580	**76.7**	30	-	125	
45	Sc	1	1316752	2.23	1568000	**84.0**	30	-	125	
74	Ge	1	3577928	1.60	3965000	**90.2**	30	-	125	
103	Rh	1	5143165	1.92	5756000	**89.4**	30	-	125	
165	Ho	1	2775315	0.66	2702000	**102.7**	30	-	125	
175	Lu	1	2479927	1.66	2349000	**105.6**	30	-	125	
209	Bi	1	3084156	1.40	2910000	**106.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\184SMPL.D\184SMPL.D#
Date Acquired: Sep 16 2011 04:34 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.008**	ug/l	0.01	70.6	900	6	P	
23	**Na**	1	**34.680**	ug/l	34.68	10.9	450000	6	P	
24	**Mg**	1	**1.681**	ug/l	1.68	8.5	450000	6	P	
27	**Al**	1	**0.477**	ug/l	0.48	27.3	450000	6	P	
31	**P**	1	**-2.291**	ug/l	-2.29	117.2	450000	6	P	
39	**K**	1	**-26.490**	ug/l	-26.49	5.0	450000	45	P	
44	**Ca**	1	**1.019**	ug/l	1.02	47.9	450000	45	P	
47	**Ti**	1	**0.087**	ug/l	0.09	35.0	4500	45	P	
51	**V**	1	**-0.300**	ug/l	-0.30	6.3	4500	45	P	
52	**Cr**	1	**0.023**	ug/l	0.02	30.7	4500	45	P	
55	**Mn**	1	**0.071**	ug/l	0.07	10.0	4500	45	P	
57	**Fe**	1	**4.089**	ug/l	4.09	17.2	450000	74	P	
59	**Co**	1	**0.023**	ug/l	0.02	29.1	4500	45	P	
60	**Ni**	1	**0.022**	ug/l	0.02	46.0	4500	45	P	
63	**Cu**	1	**0.072**	ug/l	0.07	46.4	4500	45	P	
66	**Zn**	1	**0.050**	ug/l	0.05	34.4	4500	74	P	
75	**As**	1	**0.081**	ug/l	0.08	40.0	4500	45	P	
78	**Se**	1	**-0.018**	ug/l	-0.02	487.2	4500	45	P	
88	**Sr**	1	**0.025**	ug/l	0.03	42.2	4500	45	P	
95	**Mo**	1	**0.139**	ug/l	0.14	27.4	4500	74	P	
109	**Ag**	1	**0.015**	ug/l	0.01	7.0	4500	103	P	
111	**Cd**	1	**0.007**	ug/l	0.01	78.6	4500	103	P	
118	**Sn**	1	**0.250**	ug/l	0.25	10.4	4500	103	P	
123	**Sb**	1	**0.133**	ug/l	0.13	14.3	4500	103	P	
135	**Ba**	1	**0.042**	ug/l	0.04	5.9	4500	103	P	
200	**Hg**	1	**0.031**	ug/l	0.03	23.9	45	209	P	
205	**Tl**	1	**0.575**	ug/l	0.58	7.3	4500	165	P	
208	**Pb**	1	**0.029**	ug/l	0.03	32.5	4500	209	P	
238	**U**	1	**0.026**	ug/l	0.03	9.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64622	2.06	81580	**79.2**	30	-	125	
45	Sc	1	1337361	1.40	1568000	**85.3**	30	-	125	
74	Ge	1	3601472	0.47	3965000	**90.8**	30	-	125	
103	Rh	1	5367488	0.58	5756000	**93.3**	30	-	125	
165	Ho	1	2830000	0.78	2702000	**104.7**	30	-	125	
175	Lu	1	2488665	2.33	2349000	**105.9**	30	-	125	
209	Bi	1	3213041	0.76	2910000	**110.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\185SMPL.D\185SMPL.D#
Date Acquired: Sep 16 2011 04:39 am Acq. Method: 00He_ALL.M
Sample Name: 580-28356-A-12-G Vial Number: 2111
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10000.00** Final Dil Factor: **10000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	-45.88	374.2	900	6	P	
23	**Na**	1	**31.600**	ug/l	316,000.00	3.4	450000	6	P	
24	**Mg**	1	**22.820**	ug/l	228,200.00	0.4	450000	6	P	
27	**Al**	1	**33.290**	ug/l	332,900.00	5.0	450000	6	P	
31	**P**	1	**0.223**	ug/l	2,234.00	324.0	450000	6	P	
39	**K**	1	**-6.029**	ug/l	-60,290.00	49.0	450000	45	P	
44	**Ca**	1	**3.526**	ug/l	35,260.00	16.4	450000	45	P	
47	**Ti**	1	**8.347**	ug/l	83,470.00	4.6	4500	45	P	
51	**V**	1	**-0.015**	ug/l	-145.70	82.4	4500	45	P	
52	**Cr**	1	**0.010**	ug/l	99.34	93.3	4500	45	P	
55	**Mn**	1	**1.223**	ug/l	12,230.00	2.8	4500	45	P	
57	**Fe**	1	**642.000**	ug/l	6,420,000.00	1.8	450000	74	P	
59	**Co**	1	**0.049**	ug/l	489.30	16.4	4500	45	P	
60	**Ni**	1	**0.043**	ug/l	433.20	27.8	4500	45	P	
63	**Cu**	1	**4.350**	ug/l	43,500.00	1.5	4500	45	P	
66	**Zn**	1	**0.348**	ug/l	3,480.00	7.9	4500	74	P	
75	**As**	1	**49.330**	ug/l	493,300.00	4.3	4500	45	P	
78	**Se**	1	**-0.071**	ug/l	-711.80	205.4	4500	45	P	
88	**Sr**	1	**0.040**	ug/l	397.70	24.6	4500	45	P	
95	**Mo**	1	**0.053**	ug/l	528.60	14.8	4500	74	P	
109	**Ag**	1	**0.288**	ug/l	2,884.00	2.9	4500	103	P	
111	**Cd**	1	**-0.003**	ug/l	-26.18	194.9	4500	103	P	
118	**Sn**	1	**0.150**	ug/l	1,500.00	26.5	4500	103	P	
123	**Sb**	1	**0.093**	ug/l	927.90	20.3	4500	103	P	
135	**Ba**	1	**0.952**	ug/l	9,516.00	6.5	4500	103	P	
200	**Hg**	1	**0.025**	ug/l	247.90	13.7	45	209	P	
205	**Tl**	1	**0.252**	ug/l	2,521.00	16.6	4500	165	P	
208	**Pb**	1	**4.553**	ug/l	45,530.00	3.1	4500	209	P	
238	**U**	1	**0.009**	ug/l	88.02	27.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65687	1.38	81580	**80.5**	30	-	125	
45	Sc	1	1333148	3.18	1568000	**85.0**	30	-	125	
74	Ge	1	3591893	0.98	3965000	**90.6**	30	-	125	
103	Rh	1	5317150	1.58	5756000	**92.4**	30	-	125	
165	Ho	1	2812159	0.98	2702000	**104.1**	30	-	125	
175	Lu	1	2474282	2.04	2349000	**105.3**	30	-	125	
209	Bi	1	3225639	2.63	2910000	**110.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\187SMPL.D\187SMPL.D#
Date Acquired: Sep 16 2011 04:47 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.940**	ug/l	48.94	0.8	900	6	P	
23	**Na**	1	**4701.000**	ug/l	4,701.00	0.8	450000	6	A	
24	**Mg**	1	**4702.000**	ug/l	4,702.00	0.6	450000	6	A	
27	**Al**	1	**481.300**	ug/l	481.30	0.2	450000	6	P	
31	**P**	1	**4365.000**	ug/l	4,365.00	0.3	450000	6	P	
39	**K**	1	**4343.000**	ug/l	4,343.00	2.5	450000	45	A	
44	**Ca**	1	**4620.000**	ug/l	4,620.00	2.0	450000	45	P	
47	**Ti**	1	**46.680**	ug/l	46.68	2.2	4500	45	P	
51	**V**	1	**46.940**	ug/l	46.94	2.7	4500	45	P	
52	**Cr**	1	**47.990**	ug/l	47.99	3.2	4500	45	P	
55	**Mn**	1	**49.710**	ug/l	49.71	3.8	4500	45	P	
57	**Fe**	1	**4567.000**	ug/l	4,567.00	1.7	450000	74	P	
59	**Co**	1	**47.360**	ug/l	47.36	2.4	4500	45	P	
60	**Ni**	1	**49.100**	ug/l	49.10	3.2	4500	45	P	
63	**Cu**	1	**49.890**	ug/l	49.89	2.0	4500	45	P	
66	**Zn**	1	**47.770**	ug/l	47.77	1.7	4500	74	P	
75	**As**	1	**49.280**	ug/l	49.28	2.8	4500	45	P	
78	**Se**	1	**51.010**	ug/l	51.01	2.2	4500	45	P	
88	**Sr**	1	**50.850**	ug/l	50.85	3.2	4500	45	P	
95	**Mo**	1	**47.210**	ug/l	47.21	1.6	4500	74	P	
109	**Ag**	1	**46.190**	ug/l	46.19	0.8	4500	103	P	
111	**Cd**	1	**47.740**	ug/l	47.74	1.0	4500	103	P	
118	**Sn**	1	**47.290**	ug/l	47.29	1.8	4500	103	P	
123	**Sb**	1	**48.320**	ug/l	48.32	2.2	4500	103	P	
135	**Ba**	1	**46.490**	ug/l	46.49	1.8	4500	103	P	
200	**Hg**	1	**2.366**	ug/l	2.37	1.0	45	209	P	
205	**Tl**	1	**49.660**	ug/l	49.66	1.9	4500	165	A	
208	**Pb**	1	**46.510**	ug/l	46.51	0.9	4500	209	P	
238	**U**	1	**51.820**	ug/l	51.82	1.5	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65107	0.25	81580	**79.8**	30	-	125	
45	Sc	1	1314909	2.48	1568000	**83.9**	30	-	125	
74	Ge	1	3510901	1.79	3965000	**88.5**	30	-	125	
103	Rh	1	5070063	1.39	5756000	**88.1**	30	-	125	
165	Ho	1	2740117	2.71	2702000	**101.4**	30	-	125	
175	Lu	1	2434757	0.40	2349000	**103.7**	30	-	125	
209	Bi	1	3065575	0.91	2910000	**105.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\188SMPL.D\188SMPL.D#
Date Acquired: Sep 16 2011 04:52 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.001**	ug/l	0.00	904.7	900	6	P	
23	Na	1	**31.230**	ug/l	31.23	5.2	450000	6	P	
24	Mg	1	**1.403**	ug/l	1.40	105.9	450000	6	P	
27	Al	1	**0.188**	ug/l	0.19	121.0	450000	6	P	
31	P	1	**-3.831**	ug/l	-3.83	60.3	450000	6	P	
39	K	1	**-28.070**	ug/l	-28.07	8.2	450000	45	P	
44	Ca	1	**0.625**	ug/l	0.62	194.9	450000	45	P	
47	Ti	1	**0.029**	ug/l	0.03	118.1	4500	45	P	
51	V	1	**-0.337**	ug/l	-0.34	8.1	4500	45	P	
52	Cr	1	**0.004**	ug/l	0.00	149.7	4500	45	P	
55	Mn	1	**0.040**	ug/l	0.04	35.8	4500	45	P	
57	Fe	1	**2.461**	ug/l	2.46	74.2	450000	74	P	
59	Co	1	**0.017**	ug/l	0.02	100.7	4500	45	P	
60	Ni	1	**0.020**	ug/l	0.02	106.2	4500	45	P	
63	Cu	1	**0.067**	ug/l	0.07	27.9	4500	45	P	
66	Zn	1	**0.029**	ug/l	0.03	123.9	4500	74	P	
75	As	1	**0.005**	ug/l	0.00	373.2	4500	45	P	
78	Se	1	**-0.081**	ug/l	-0.08	107.6	4500	45	P	
88	Sr	1	**0.020**	ug/l	0.02	71.5	4500	45	P	
95	Mo	1	**0.101**	ug/l	0.10	26.9	4500	74	P	
109	Ag	1	**0.009**	ug/l	0.01	105.2	4500	103	P	
111	Cd	1	**0.004**	ug/l	0.00	329.5	4500	103	P	
118	Sn	1	**0.187**	ug/l	0.19	32.6	4500	103	P	
123	Sb	1	**0.079**	ug/l	0.08	34.2	4500	103	P	
135	Ba	1	**0.012**	ug/l	0.01	66.9	4500	103	P	
200	Hg	1	**0.017**	ug/l	0.02	41.2	45	209	P	
205	Tl	1	**0.398**	ug/l	0.40	11.6	4500	165	P	
208	Pb	1	**0.023**	ug/l	0.02	48.3	4500	209	P	
238	U	1	**0.028**	ug/l	0.03	61.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66062	1.09	81580	**81.0**	30	-	125	
45	Sc	1	1297009	2.25	1568000	**82.7**	30	-	125	
74	Ge	1	3506563	1.18	3965000	**88.4**	30	-	125	
103	Rh	1	5216099	1.31	5756000	**90.6**	30	-	125	
165	Ho	1	2745374	1.45	2702000	**101.6**	30	-	125	
175	Lu	1	2433494	2.01	2349000	**103.6**	30	-	125	
209	Bi	1	3158320	1.52	2910000	**108.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\189SMPL.D\189SMPL.D#
Date Acquired: Sep 16 2011 04:56 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95470/23-A Vial Number: 3101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.08	57.2	900	6	P	
23	**Na**	1	**30.060**	ug/l	300.60	3.9	450000	6	P	
24	**Mg**	1	**0.207**	ug/l	2.07	35.7	450000	6	P	
27	**Al**	1	**-0.022**	ug/l	-0.22	362.5	450000	6	P	
31	**P**	1	**-3.436**	ug/l	-34.36	68.5	450000	6	P	
39	**K**	1	**-30.000**	ug/l	-300.00	9.0	450000	45	P	
44	**Ca**	1	**-0.651**	ug/l	-6.51	56.6	450000	45	P	
47	**Ti**	1	**0.010**	ug/l	0.10	369.6	4500	45	P	
51	**V**	1	**-0.322**	ug/l	-3.22	2.9	4500	45	P	
52	**Cr**	1	**-0.011**	ug/l	-0.11	110.5	4500	45	P	
55	**Mn**	1	**0.035**	ug/l	0.35	36.1	4500	45	P	
57	**Fe**	1	**0.505**	ug/l	5.05	36.4	450000	74	P	
59	**Co**	1	**0.004**	ug/l	0.04	13.2	4500	45	P	
60	**Ni**	1	**0.029**	ug/l	0.29	14.7	4500	45	P	
63	**Cu**	1	**0.058**	ug/l	0.58	59.6	4500	45	P	
66	**Zn**	1	**0.057**	ug/l	0.57	36.9	4500	74	P	
75	**As**	1	**-0.014**	ug/l	-0.14	55.0	4500	45	P	
78	**Se**	1	**-0.140**	ug/l	-1.40	57.3	4500	45	P	
88	**Sr**	1	**0.002**	ug/l	0.02	422.1	4500	45	P	
95	**Mo**	1	**0.032**	ug/l	0.32	13.6	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	146.2	4500	103	P	
111	**Cd**	1	**-0.005**	ug/l	-0.05	85.2	4500	103	P	
118	**Sn**	1	**0.070**	ug/l	0.70	41.9	4500	103	P	
123	**Sb**	1	**0.042**	ug/l	0.42	16.3	4500	103	P	
135	**Ba**	1	**0.015**	ug/l	0.15	13.9	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.10	17.2	45	209	P	
205	**Tl**	1	**0.164**	ug/l	1.64	22.1	4500	165	P	
208	**Pb**	1	**0.009**	ug/l	0.09	91.6	4500	209	P	
238	**U**	1	**0.005**	ug/l	0.05	7.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67057	1.93	81580	**82.2**	30	-	125	
45	Sc	1	1323888	1.98	1568000	**84.4**	30	-	125	
74	Ge	1	3537193	1.06	3965000	**89.2**	30	-	125	
103	Rh	1	5168512	1.01	5756000	**89.8**	30	-	125	
165	Ho	1	2783687	1.42	2702000	**103.0**	30	-	125	
175	Lu	1	2447672	1.36	2349000	**104.2**	30	-	125	
209	Bi	1	3208399	1.86	2910000	**110.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\190SMPL.D\190SMPL.D#
Date Acquired: Sep 16 2011 05:01 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-A-4-G SD Vial Number: 3102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.004**	ug/l	-0.22	123.0	900	6	P	
23	**Na**	1	**936.500**	ug/l	46,825.00	1.7	450000	6	A	
24	**Mg**	1	**44.920**	ug/l	2,246.00	3.0	450000	6	P	
27	**Al**	1	**3.836**	ug/l	191.80	2.3	450000	6	P	
31	**P**	1	**-1.519**	ug/l	-75.95	91.1	450000	6	P	
39	**K**	1	**13.430**	ug/l	671.50	20.4	450000	45	P	
44	**Ca**	1	**319.400**	ug/l	15,970.00	2.2	450000	45	P	
47	**Ti**	1	**0.228**	ug/l	11.41	6.8	4500	45	P	
51	**V**	1	**-0.211**	ug/l	-10.54	9.9	4500	45	P	
52	**Cr**	1	**0.053**	ug/l	2.67	27.9	4500	45	P	
55	**Mn**	1	**0.066**	ug/l	3.28	9.6	4500	45	P	
57	**Fe**	1	**3.457**	ug/l	172.85	9.7	450000	74	P	
59	**Co**	1	**0.009**	ug/l	0.43	44.8	4500	45	P	
60	**Ni**	1	**0.040**	ug/l	2.01	31.2	4500	45	P	
63	**Cu**	1	**0.066**	ug/l	3.29	11.0	4500	45	P	
66	**Zn**	1	**0.247**	ug/l	12.37	21.1	4500	74	P	
75	**As**	1	**0.019**	ug/l	0.94	69.3	4500	45	P	
78	**Se**	1	**-0.116**	ug/l	-5.78	37.6	4500	45	P	
88	**Sr**	1	**1.502**	ug/l	75.10	1.7	4500	45	P	
95	**Mo**	1	**0.198**	ug/l	9.89	5.4	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.12	107.0	4500	103	P	
111	**Cd**	1	**-0.008**	ug/l	-0.42	67.3	4500	103	P	
118	**Sn**	1	**0.047**	ug/l	2.34	34.0	4500	103	P	
123	**Sb**	1	**0.068**	ug/l	3.41	29.0	4500	103	P	
135	**Ba**	1	**0.154**	ug/l	7.68	7.5	4500	103	P	
200	**Hg**	1	**0.010**	ug/l	0.51	14.2	45	209	P	
205	**Tl**	1	**0.106**	ug/l	5.28	22.1	4500	165	P	
208	**Pb**	1	**0.064**	ug/l	3.20	17.2	4500	209	P	
238	**U**	1	**0.007**	ug/l	0.36	30.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65739	1.03	81580	**80.6**	30	-	125	
45	Sc	1	1284464	1.33	1568000	**81.9**	30	-	125	
74	Ge	1	3457513	0.83	3965000	**87.2**	30	-	125	
103	Rh	1	5087929	1.89	5756000	**88.4**	30	-	125	
165	Ho	1	2731801	1.18	2702000	**101.1**	30	-	125	
175	Lu	1	2401525	0.88	2349000	**102.2**	30	-	125	
209	Bi	1	3194491	1.24	2910000	**109.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\191SMPL.D\191SMPL.D#
Date Acquired: Sep 16 2011 05:05 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-A-4-G Vial Number: 3103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.013**	ug/l	-0.13	62.7	900	6	P	
23	**Na**	1	**4398.000**	ug/l	43,980.00	2.2	450000	6	A	
24	**Mg**	1	**218.900**	ug/l	2,189.00	0.7	450000	6	P	
27	**Al**	1	**17.910**	ug/l	179.10	6.4	450000	6	P	
31	**P**	1	**4.378**	ug/l	43.78	78.4	450000	6	P	
39	**K**	1	**183.300**	ug/l	1,833.00	2.3	450000	45	P	
44	**Ca**	1	**1589.000**	ug/l	15,890.00	2.3	450000	45	P	
47	**Ti**	1	**1.295**	ug/l	12.95	5.8	4500	45	P	
51	**V**	1	**0.158**	ug/l	1.58	10.3	4500	45	P	
52	**Cr**	1	**0.220**	ug/l	2.20	6.9	4500	45	P	
55	**Mn**	1	**0.266**	ug/l	2.66	6.1	4500	45	P	
57	**Fe**	1	**16.290**	ug/l	162.90	2.1	450000	74	P	
59	**Co**	1	**0.030**	ug/l	0.30	1.6	4500	45	P	
60	**Ni**	1	**0.186**	ug/l	1.86	5.7	4500	45	P	
63	**Cu**	1	**0.305**	ug/l	3.05	14.1	4500	45	P	
66	**Zn**	1	**1.065**	ug/l	10.65	6.0	4500	74	P	
75	**As**	1	**0.086**	ug/l	0.86	3.8	4500	45	P	
78	**Se**	1	**-0.068**	ug/l	-0.68	68.4	4500	45	P	
88	**Sr**	1	**7.462**	ug/l	74.62	3.2	4500	45	P	
95	**Mo**	1	**0.957**	ug/l	9.57	1.3	4500	74	P	
109	**Ag**	1	**0.006**	ug/l	0.06	24.9	4500	103	P	
111	**Cd**	1	**0.002**	ug/l	0.02	965.1	4500	103	P	
118	**Sn**	1	**0.070**	ug/l	0.70	21.1	4500	103	P	
123	**Sb**	1	**0.176**	ug/l	1.76	7.5	4500	103	P	
135	**Ba**	1	**0.823**	ug/l	8.23	9.9	4500	103	P	
200	**Hg**	1	**0.004**	ug/l	0.04	99.6	45	209	P	
205	**Tl**	1	**0.082**	ug/l	0.82	21.4	4500	165	P	
208	**Pb**	1	**0.314**	ug/l	3.14	7.1	4500	209	P	
238	**U**	1	**0.025**	ug/l	0.25	12.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	68505	0.55	81580	**84.0**	30 - 125	
45	Sc	1	1342246	1.93	1568000	**85.6**	30 - 125	
74	Ge	1	3547387	1.34	3965000	**89.5**	30 - 125	
103	Rh	1	5210281	0.65	5756000	**90.5**	30 - 125	
165	Ho	1	2826838	1.09	2702000	**104.6**	30 - 125	
175	Lu	1	2497654	0.61	2349000	**106.3**	30 - 125	
209	Bi	1	3228319	1.06	2910000	**110.9**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\192SMPL.D\192SMPL.D#
Date Acquired: Sep 16 2011 05:09 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-A-4-H DU Vial Number: 3104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.013**	ug/l	-0.13	39.7	900	6	P	
23	Na	1	**4411.000**	ug/l	44,110.00	0.9	450000	6	A	
24	Mg	1	**221.100**	ug/l	2,211.00	2.4	450000	6	P	
27	Al	1	**18.180**	ug/l	181.80	2.8	450000	6	P	
31	P	1	**1.906**	ug/l	19.06	105.8	450000	6	P	
39	K	1	**184.300**	ug/l	1,843.00	4.2	450000	45	P	
44	Ca	1	**1597.000**	ug/l	15,970.00	3.5	450000	45	P	
47	Ti	1	**1.215**	ug/l	12.15	7.7	4500	45	P	
51	V	1	**0.239**	ug/l	2.39	20.8	4500	45	P	
52	Cr	1	**0.220**	ug/l	2.20	5.4	4500	45	P	
55	Mn	1	**0.275**	ug/l	2.75	4.3	4500	45	P	
57	Fe	1	**17.590**	ug/l	175.90	4.6	450000	74	P	
59	Co	1	**0.027**	ug/l	0.27	17.0	4500	45	P	
60	Ni	1	**0.199**	ug/l	1.99	7.0	4500	45	P	
63	Cu	1	**0.292**	ug/l	2.92	10.8	4500	45	P	
66	Zn	1	**1.014**	ug/l	10.14	7.7	4500	74	P	
75	As	1	**0.100**	ug/l	1.00	16.3	4500	45	P	
78	Se	1	**-0.111**	ug/l	-1.11	19.3	4500	45	P	
88	Sr	1	**7.534**	ug/l	75.34	3.4	4500	45	P	
95	Mo	1	**0.980**	ug/l	9.80	1.8	4500	74	P	
109	Ag	1	**0.005**	ug/l	0.05	39.8	4500	103	P	
111	Cd	1	**-0.008**	ug/l	-0.08	108.9	4500	103	P	
118	Sn	1	**0.056**	ug/l	0.56	18.1	4500	103	P	
123	Sb	1	**0.185**	ug/l	1.85	9.3	4500	103	P	
135	Ba	1	**0.785**	ug/l	7.85	8.4	4500	103	P	
200	Hg	1	**0.002**	ug/l	0.02	113.6	45	209	P	
205	Tl	1	**0.069**	ug/l	0.69	24.8	4500	165	P	
208	Pb	1	**0.300**	ug/l	3.00	5.7	4500	209	P	
238	U	1	**0.025**	ug/l	0.25	6.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66015	1.09	81580	**80.9**	30	-	125	
45	Sc	1	1294587	3.37	1568000	**82.6**	30	-	125	
74	Ge	1	3433414	0.30	3965000	**86.6**	30	-	125	
103	Rh	1	5083522	1.38	5756000	**88.3**	30	-	125	
165	Ho	1	2749812	0.93	2702000	**101.8**	30	-	125	
175	Lu	1	2447311	0.95	2349000	**104.2**	30	-	125	
209	Bi	1	3185393	1.88	2910000	**109.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\193SMPL.D\193SMPL.D#
Date Acquired: Sep 16 2011 05:14 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-A-4-I MS Vial Number: 3105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.045**	ug/l	102.25	8.2	900	6	P	
23	Na	1	**1402.000**	ug/l	70,100.00	1.2	450000	6	A	
24	Mg	1	**449.400**	ug/l	22,470.00	1.7	450000	6	P	
27	Al	1	**88.670**	ug/l	4,433.50	2.1	450000	6	P	
31	P	1	**338.300**	ug/l	16,915.00	1.4	450000	6	P	
39	K	1	**390.700**	ug/l	19,535.00	1.2	450000	45	P	
44	Ca	1	**942.800**	ug/l	47,140.00	1.8	450000	45	P	
47	Ti	1	**95.840**	ug/l	4,792.00	1.7	4500	45	P	
51	V	1	**19.890**	ug/l	994.50	0.8	4500	45	P	
52	Cr	1	**8.304**	ug/l	415.20	1.9	4500	45	P	
55	Mn	1	**21.270**	ug/l	1,063.50	1.3	4500	45	P	
57	Fe	1	**436.900**	ug/l	21,845.00	1.6	450000	74	P	
59	Co	1	**20.430**	ug/l	1,021.50	2.2	4500	45	P	
60	Ni	1	**21.140**	ug/l	1,057.00	2.6	4500	45	P	
63	Cu	1	**11.180**	ug/l	559.00	1.5	4500	45	P	
66	Zn	1	**20.660**	ug/l	1,033.00	2.1	4500	74	P	
75	As	1	**85.930**	ug/l	4,296.50	2.0	4500	45	P	
78	Se	1	**85.220**	ug/l	4,261.00	1.3	4500	45	P	
88	Sr	1	**2.106**	ug/l	105.30	2.0	4500	45	P	
95	Mo	1	**100.900**	ug/l	5,045.00	0.2	4500	74	P	
109	Ag	1	**11.740**	ug/l	587.00	2.2	4500	103	P	
111	Cd	1	**1.980**	ug/l	99.00	5.1	4500	103	P	
118	Sn	1	**99.270**	ug/l	4,963.50	1.7	4500	103	P	
123	Sb	1	**60.930**	ug/l	3,046.50	1.2	4500	103	P	
135	Ba	1	**77.600**	ug/l	3,880.00	1.6	4500	103	P	
200	Hg	1	**0.956**	ug/l	47.81	2.4	45	209	P	
205	Tl	1	**85.270**	ug/l	4,263.50	3.3	4500	165	A	
208	Pb	1	**19.660**	ug/l	983.00	1.3	4500	209	P	
238	U	1	**0.005**	ug/l	0.27	20.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65233	1.57	81580	**80.0**	30	-	125	
45	Sc	1	1273228	1.13	1568000	**81.2**	30	-	125	
74	Ge	1	3419825	0.74	3965000	**86.3**	30	-	125	
103	Rh	1	5028875	1.12	5756000	**87.4**	30	-	125	
165	Ho	1	2723031	1.30	2702000	**100.8**	30	-	125	
175	Lu	1	2439998	2.21	2349000	**103.9**	30	-	125	
209	Bi	1	3164886	1.14	2910000	**108.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\194SMPL.D\194SMPL.D#
Date Acquired: Sep 16 2011 05:18 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-A-4-J MSD Vial Number: 3106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.910**	ug/l	95.50	0.8	900	6	P	
23	Na	1	**1456.000**	ug/l	72,800.00	1.5	450000	6	A	
24	Mg	1	**458.700**	ug/l	22,935.00	0.9	450000	6	P	
27	Al	1	**89.780**	ug/l	4,489.00	1.9	450000	6	P	
31	P	1	**346.700**	ug/l	17,335.00	3.7	450000	6	P	
39	K	1	**387.500**	ug/l	19,375.00	3.3	450000	45	P	
44	Ca	1	**927.400**	ug/l	46,370.00	1.9	450000	45	P	
47	Ti	1	**94.110**	ug/l	4,705.50	2.7	4500	45	P	
51	V	1	**19.540**	ug/l	977.00	1.7	4500	45	P	
52	Cr	1	**8.159**	ug/l	407.95	1.9	4500	45	P	
55	Mn	1	**21.040**	ug/l	1,052.00	2.8	4500	45	P	
57	Fe	1	**435.200**	ug/l	21,760.00	2.3	450000	74	P	
59	Co	1	**20.020**	ug/l	1,001.00	3.4	4500	45	P	
60	Ni	1	**20.850**	ug/l	1,042.50	3.1	4500	45	P	
63	Cu	1	**11.180**	ug/l	559.00	2.7	4500	45	P	
66	Zn	1	**20.780**	ug/l	1,039.00	3.5	4500	74	P	
75	As	1	**83.960**	ug/l	4,198.00	2.9	4500	45	P	
78	Se	1	**84.660**	ug/l	4,233.00	3.1	4500	45	P	
88	Sr	1	**2.058**	ug/l	102.90	0.8	4500	45	P	
95	Mo	1	**101.400**	ug/l	5,070.00	2.5	4500	74	P	
109	Ag	1	**11.710**	ug/l	585.50	2.7	4500	103	P	
111	Cd	1	**2.059**	ug/l	102.95	2.6	4500	103	P	
118	Sn	1	**98.940**	ug/l	4,947.00	1.8	4500	103	P	
123	Sb	1	**60.530**	ug/l	3,026.50	2.1	4500	103	P	
135	Ba	1	**77.900**	ug/l	3,895.00	2.3	4500	103	P	
200	Hg	1	**0.965**	ug/l	48.27	3.0	45	209	P	
205	Tl	1	**84.160**	ug/l	4,208.00	2.8	4500	165	A	
208	Pb	1	**19.740**	ug/l	987.00	2.1	4500	209	P	
238	U	1	**0.005**	ug/l	0.24	24.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64686	0.85	81580	**79.3**	30	-	125	
45	Sc	1	1294406	2.31	1568000	**82.6**	30	-	125	
74	Ge	1	3423847	2.27	3965000	**86.4**	30	-	125	
103	Rh	1	5086422	1.28	5756000	**88.4**	30	-	125	
165	Ho	1	2744370	1.03	2702000	**101.6**	30	-	125	
175	Lu	1	2460737	1.44	2349000	**104.8**	30	-	125	
209	Bi	1	3165592	1.57	2910000	**108.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\195SMPL.D\195SMPL.D#
Date Acquired: Sep 16 2011 05:23 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-A-4-G PDS Vial Number: 3107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.024**	ug/l	101.20	2.3	900	6	P	
23	Na	1	**1451.000**	ug/l	72,550.00	0.8	450000	6	A	
24	Mg	1	**462.600**	ug/l	23,130.00	1.8	450000	6	P	
27	Al	1	**91.330**	ug/l	4,566.50	1.2	450000	6	P	
31	P	1	**354.000**	ug/l	17,700.00	0.9	450000	6	P	
39	K	1	**396.400**	ug/l	19,820.00	6.2	450000	45	P	
44	Ca	1	**946.100**	ug/l	47,305.00	4.4	450000	45	P	
47	Ti	1	**97.200**	ug/l	4,860.00	4.7	4500	45	P	
51	V	1	**20.060**	ug/l	1,003.00	6.4	4500	45	P	
52	Cr	1	**8.363**	ug/l	418.15	6.2	4500	45	P	
55	Mn	1	**21.570**	ug/l	1,078.50	4.1	4500	45	P	
57	Fe	1	**448.700**	ug/l	22,435.00	0.5	450000	74	P	
59	Co	1	**20.350**	ug/l	1,017.50	5.0	4500	45	P	
60	Ni	1	**21.190**	ug/l	1,059.50	3.9	4500	45	P	
63	Cu	1	**11.160**	ug/l	558.00	4.5	4500	45	P	
66	Zn	1	**21.320**	ug/l	1,066.00	1.4	4500	74	P	
75	As	1	**85.440**	ug/l	4,272.00	4.9	4500	45	P	
78	Se	1	**87.680**	ug/l	4,384.00	4.6	4500	45	P	
88	Sr	1	**2.136**	ug/l	106.80	5.0	4500	45	P	
95	Mo	1	**104.700**	ug/l	5,235.00	0.4	4500	74	P	
109	Ag	1	**11.890**	ug/l	594.50	2.0	4500	103	P	
111	Cd	1	**2.050**	ug/l	102.50	1.3	4500	103	P	
118	Sn	1	**100.300**	ug/l	5,015.00	1.7	4500	103	P	
123	Sb	1	**61.000**	ug/l	3,050.00	2.3	4500	103	P	
135	Ba	1	**78.580**	ug/l	3,929.00	1.2	4500	103	P	
200	Hg	1	**1.008**	ug/l	50.40	2.4	45	209	P	
205	Tl	1	**86.640**	ug/l	4,332.00	3.3	4500	165	A	
208	Pb	1	**20.320**	ug/l	1,016.00	0.8	4500	209	P	
238	U	1	**0.006**	ug/l	0.31	6.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66780	1.33	81580	**81.9**	30	-	125	
45	Sc	1	1326288	4.57	1568000	**84.6**	30	-	125	
74	Ge	1	3489971	0.81	3965000	**88.0**	30	-	125	
103	Rh	1	5224399	1.81	5756000	**90.8**	30	-	125	
165	Ho	1	2812386	1.27	2702000	**104.1**	30	-	125	
175	Lu	1	2506018	1.50	2349000	**106.7**	30	-	125	
209	Bi	1	3185445	0.33	2910000	**109.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\196SMPL.D\196SMPL.D#
Date Acquired: Sep 16 2011 05:27 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95470/24-A Vial Number: 3108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.043**	ug/l	102.15	5.8	900	6	P	
23	**Na**	1	**415.400**	ug/l	20,770.00	2.2	450000	6	P	
24	**Mg**	1	**393.700**	ug/l	19,685.00	2.0	450000	6	P	
27	**Al**	1	**79.670**	ug/l	3,983.50	3.6	450000	6	P	
31	**P**	1	**329.100**	ug/l	16,455.00	2.1	450000	6	P	
39	**K**	1	**337.300**	ug/l	16,865.00	3.7	450000	45	P	
44	**Ca**	1	**398.300**	ug/l	19,915.00	3.3	450000	45	P	
47	**Ti**	1	**93.060**	ug/l	4,653.00	3.0	4500	45	P	
51	**V**	1	**19.500**	ug/l	975.00	3.0	4500	45	P	
52	**Cr**	1	**8.101**	ug/l	405.05	2.8	4500	45	P	
55	**Mn**	1	**20.730**	ug/l	1,036.50	3.9	4500	45	P	
57	**Fe**	1	**419.000**	ug/l	20,950.00	2.4	450000	74	P	
59	**Co**	1	**19.720**	ug/l	986.00	3.1	4500	45	P	
60	**Ni**	1	**20.520**	ug/l	1,026.00	2.8	4500	45	P	
63	**Cu**	1	**10.580**	ug/l	529.00	4.4	4500	45	P	
66	**Zn**	1	**21.600**	ug/l	1,080.00	0.3	4500	74	P	
75	**As**	1	**81.790**	ug/l	4,089.50	3.3	4500	45	P	
78	**Se**	1	**83.770**	ug/l	4,188.50	3.1	4500	45	P	
88	**Sr**	1	**0.008**	ug/l	0.41	145.7	4500	45	P	
95	**Mo**	1	**100.700**	ug/l	5,035.00	1.3	4500	74	P	
109	**Ag**	1	**11.650**	ug/l	582.50	0.4	4500	103	P	
111	**Cd**	1	**1.969**	ug/l	98.45	1.9	4500	103	P	
118	**Sn**	1	**97.890**	ug/l	4,894.50	0.3	4500	103	P	
123	**Sb**	1	**57.420**	ug/l	2,871.00	0.6	4500	103	P	
135	**Ba**	1	**74.100**	ug/l	3,705.00	0.4	4500	103	P	
200	**Hg**	1	**0.953**	ug/l	47.66	1.4	45	209	P	
205	**Tl**	1	**83.260**	ug/l	4,163.00	4.7	4500	165	A	
208	**Pb**	1	**19.090**	ug/l	954.50	1.6	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	216.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67149	1.29	81580	**82.3**	30	-	125	
45	Sc	1	1307762	2.94	1568000	**83.4**	30	-	125	
74	Ge	1	3427057	1.98	3965000	**86.4**	30	-	125	
103	Rh	1	5194779	0.30	5756000	**90.2**	30	-	125	
165	Ho	1	2754445	1.52	2702000	**101.9**	30	-	125	
175	Lu	1	2463178	1.38	2349000	**104.9**	30	-	125	
209	Bi	1	3233710	0.93	2910000	**111.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\197SMPL.D\197SMPL.D#
Date Acquired: Sep 16 2011 05:31 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95470/25-A Vial Number: 3109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.067**	ug/l	103.35	5.8	900	6	P	
23	**Na**	1	**407.200**	ug/l	20,360.00	2.7	450000	6	P	
24	**Mg**	1	**388.100**	ug/l	19,405.00	2.1	450000	6	P	
27	**Al**	1	**79.920**	ug/l	3,996.00	1.6	450000	6	P	
31	**P**	1	**322.800**	ug/l	16,140.00	3.3	450000	6	P	
39	**K**	1	**340.100**	ug/l	17,005.00	0.7	450000	45	P	
44	**Ca**	1	**393.800**	ug/l	19,690.00	0.7	450000	45	P	
47	**Ti**	1	**94.190**	ug/l	4,709.50	0.5	4500	45	P	
51	**V**	1	**19.540**	ug/l	977.00	1.2	4500	45	P	
52	**Cr**	1	**8.202**	ug/l	410.10	0.9	4500	45	P	
55	**Mn**	1	**21.160**	ug/l	1,058.00	1.1	4500	45	P	
57	**Fe**	1	**423.100**	ug/l	21,155.00	1.1	450000	74	P	
59	**Co**	1	**20.110**	ug/l	1,005.50	0.9	4500	45	P	
60	**Ni**	1	**20.560**	ug/l	1,028.00	0.9	4500	45	P	
63	**Cu**	1	**10.810**	ug/l	540.50	1.7	4500	45	P	
66	**Zn**	1	**21.210**	ug/l	1,060.50	1.7	4500	74	P	
75	**As**	1	**83.170**	ug/l	4,158.50	1.1	4500	45	P	
78	**Se**	1	**84.620**	ug/l	4,231.00	2.6	4500	45	P	
88	**Sr**	1	**0.118**	ug/l	5.89	10.1	4500	45	P	
95	**Mo**	1	**99.850**	ug/l	4,992.50	1.6	4500	74	P	
109	**Ag**	1	**11.630**	ug/l	581.50	2.2	4500	103	P	
111	**Cd**	1	**2.081**	ug/l	104.05	4.4	4500	103	P	
118	**Sn**	1	**97.870**	ug/l	4,893.50	2.4	4500	103	P	
123	**Sb**	1	**57.520**	ug/l	2,876.00	2.0	4500	103	P	
135	**Ba**	1	**75.510**	ug/l	3,775.50	2.8	4500	103	P	
200	**Hg**	1	**0.969**	ug/l	48.45	1.7	45	209	P	
205	**Tl**	1	**83.560**	ug/l	4,178.00	5.6	4500	165	A	
208	**Pb**	1	**19.390**	ug/l	969.50	1.6	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	83.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67338	2.35	81580	**82.5**	30	-	125	
45	Sc	1	1286094	0.66	1568000	**82.0**	30	-	125	
74	Ge	1	3426095	1.50	3965000	**86.4**	30	-	125	
103	Rh	1	5099082	2.08	5756000	**88.6**	30	-	125	
165	Ho	1	2726480	2.12	2702000	**100.9**	30	-	125	
175	Lu	1	2442121	3.85	2349000	**104.0**	30	-	125	
209	Bi	1	3150439	1.08	2910000	**108.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\198SMPL.D\198SMPL.D#
Date Acquired: Sep 16 2011 05:36 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.900**	ug/l	46.90	0.9	900	6	P	
23	**Na**	1	**4519.000**	ug/l	4,519.00	2.5	450000	6	A	
24	**Mg**	1	**4635.000**	ug/l	4,635.00	2.4	450000	6	A	
27	**Al**	1	**461.600**	ug/l	461.60	3.4	450000	6	P	
31	**P**	1	**4108.000**	ug/l	4,108.00	2.2	450000	6	P	
39	**K**	1	**4366.000**	ug/l	4,366.00	2.5	450000	45	A	
44	**Ca**	1	**4600.000**	ug/l	4,600.00	2.3	450000	45	P	
47	**Ti**	1	**46.180**	ug/l	46.18	2.8	4500	45	P	
51	**V**	1	**46.720**	ug/l	46.72	3.6	4500	45	P	
52	**Cr**	1	**47.890**	ug/l	47.89	3.5	4500	45	P	
55	**Mn**	1	**49.190**	ug/l	49.19	4.4	4500	45	P	
57	**Fe**	1	**4540.000**	ug/l	4,540.00	1.8	450000	74	P	
59	**Co**	1	**47.090**	ug/l	47.09	2.9	4500	45	P	
60	**Ni**	1	**48.360**	ug/l	48.36	2.8	4500	45	P	
63	**Cu**	1	**49.930**	ug/l	49.93	3.3	4500	45	P	
66	**Zn**	1	**47.400**	ug/l	47.40	1.3	4500	74	P	
75	**As**	1	**48.610**	ug/l	48.61	2.5	4500	45	P	
78	**Se**	1	**50.380**	ug/l	50.38	3.8	4500	45	P	
88	**Sr**	1	**49.780**	ug/l	49.78	2.4	4500	45	P	
95	**Mo**	1	**46.840**	ug/l	46.84	1.2	4500	74	P	
109	**Ag**	1	**45.940**	ug/l	45.94	1.5	4500	103	P	
111	**Cd**	1	**47.920**	ug/l	47.92	1.9	4500	103	P	
118	**Sn**	1	**46.970**	ug/l	46.97	1.7	4500	103	P	
123	**Sb**	1	**48.020**	ug/l	48.02	1.2	4500	103	P	
135	**Ba**	1	**45.420**	ug/l	45.42	1.3	4500	103	P	
200	**Hg**	1	**2.337**	ug/l	2.34	0.7	45	209	P	
205	**Tl**	1	**49.990**	ug/l	49.99	4.6	4500	165	A	
208	**Pb**	1	**46.050**	ug/l	46.05	1.9	4500	209	P	
238	**U**	1	**51.450**	ug/l	51.45	0.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69427	2.56	81580	**85.1**	30	-	125	
45	Sc	1	1327431	2.91	1568000	**84.7**	30	-	125	
74	Ge	1	3542026	0.33	3965000	**89.3**	30	-	125	
103	Rh	1	5079647	1.81	5756000	**88.2**	30	-	125	
165	Ho	1	2771962	1.03	2702000	**102.6**	30	-	125	
175	Lu	1	2480742	1.49	2349000	**105.6**	30	-	125	
209	Bi	1	3111107	1.56	2910000	**106.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\199SMPL.D\199SMPL.D#
Date Acquired: Sep 16 2011 05:40 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.006**	ug/l	-0.01	145.6	900	6	P	
23	Na	1	**18.040**	ug/l	18.04	9.3	450000	6	P	
24	Mg	1	**1.227**	ug/l	1.23	9.9	450000	6	P	
27	Al	1	**0.129**	ug/l	0.13	74.6	450000	6	P	
31	P	1	**-4.015**	ug/l	-4.02	7.8	450000	6	P	
39	K	1	**-34.030**	ug/l	-34.03	3.3	450000	45	P	
44	Ca	1	**0.760**	ug/l	0.76	67.6	450000	45	P	
47	Ti	1	**0.042**	ug/l	0.04	31.2	4500	45	P	
51	V	1	**-0.314**	ug/l	-0.31	2.6	4500	45	P	
52	Cr	1	**0.001**	ug/l	0.00	492.9	4500	45	P	
55	Mn	1	**0.036**	ug/l	0.04	13.6	4500	45	P	
57	Fe	1	**1.774**	ug/l	1.77	24.1	450000	74	P	
59	Co	1	**0.018**	ug/l	0.02	14.0	4500	45	P	
60	Ni	1	**0.008**	ug/l	0.01	192.8	4500	45	P	
63	Cu	1	**0.030**	ug/l	0.03	43.5	4500	45	P	
66	Zn	1	**0.033**	ug/l	0.03	106.8	4500	74	P	
75	As	1	**-0.008**	ug/l	-0.01	225.7	4500	45	P	
78	Se	1	**-0.211**	ug/l	-0.21	38.1	4500	45	P	
88	Sr	1	**0.012**	ug/l	0.01	69.8	4500	45	P	
95	Mo	1	**0.150**	ug/l	0.15	16.2	4500	74	P	
109	Ag	1	**0.015**	ug/l	0.01	17.2	4500	103	P	
111	Cd	1	**0.008**	ug/l	0.01	86.3	4500	103	P	
118	Sn	1	**0.362**	ug/l	0.36	13.7	4500	103	P	
123	Sb	1	**0.092**	ug/l	0.09	18.6	4500	103	P	
135	Ba	1	**0.020**	ug/l	0.02	18.6	4500	103	P	
200	Hg	1	**0.005**	ug/l	0.00	15.0	45	209	P	
205	Tl	1	**0.610**	ug/l	0.61	11.4	4500	165	P	
208	Pb	1	**0.025**	ug/l	0.03	35.3	4500	209	P	
238	U	1	**0.025**	ug/l	0.03	9.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72391	1.68	81580	**88.7**	30	-	125	
45	Sc	1	1364509	1.08	1568000	**87.0**	30	-	125	
74	Ge	1	3603741	0.78	3965000	**90.9**	30	-	125	
103	Rh	1	5334100	1.09	5756000	**92.7**	30	-	125	
165	Ho	1	2834003	1.61	2702000	**104.9**	30	-	125	
175	Lu	1	2524661	1.07	2349000	**107.5**	30	-	125	
209	Bi	1	3252281	1.07	2910000	**111.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\200SMPL.D\200SMPL.D#
Date Acquired: Sep 16 2011 05:45 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-B-1-G Vial Number: 3201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.015**	ug/l	-0.15	47.8	900	6	P	
23	**Na**	1	**5253.000**	ug/l	52,530.00	0.8	450000	6	A	
24	**Mg**	1	**345.900**	ug/l	3,459.00	0.3	450000	6	P	
27	**Al**	1	**13.850**	ug/l	138.50	2.8	450000	6	P	
31	**P**	1	**6.945**	ug/l	69.45	16.0	450000	6	P	
39	**K**	1	**525.600**	ug/l	5,256.00	2.7	450000	45	P	
44	**Ca**	1	**2471.000**	ug/l	24,710.00	3.1	450000	45	P	
47	**Ti**	1	**1.303**	ug/l	13.03	5.0	4500	45	P	
51	**V**	1	**1.489**	ug/l	14.89	4.2	4500	45	P	
52	**Cr**	1	**0.188**	ug/l	1.88	4.0	4500	45	P	
55	**Mn**	1	**0.305**	ug/l	3.05	3.0	4500	45	P	
57	**Fe**	1	**14.640**	ug/l	146.40	2.3	450000	74	P	
59	**Co**	1	**0.034**	ug/l	0.34	9.1	4500	45	P	
60	**Ni**	1	**0.114**	ug/l	1.14	8.8	4500	45	P	
63	**Cu**	1	**1.950**	ug/l	19.50	3.5	4500	45	P	
66	**Zn**	1	**1.219**	ug/l	12.19	2.7	4500	74	P	
75	**As**	1	**0.141**	ug/l	1.41	6.5	4500	45	P	
78	**Se**	1	**-0.168**	ug/l	-1.68	87.4	4500	45	P	
88	**Sr**	1	**9.556**	ug/l	95.56	2.4	4500	45	P	
95	**Mo**	1	**1.549**	ug/l	15.49	1.5	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.02	45.0	4500	103	P	
111	**Cd**	1	**0.005**	ug/l	0.05	109.6	4500	103	P	
118	**Sn**	1	**0.236**	ug/l	2.36	19.8	4500	103	P	
123	**Sb**	1	**0.107**	ug/l	1.07	9.0	4500	103	P	
135	**Ba**	1	**0.658**	ug/l	6.58	7.4	4500	103	P	
200	**Hg**	1	**0.005**	ug/l	0.05	100.5	45	209	P	
205	**Tl**	1	**0.285**	ug/l	2.85	18.8	4500	165	P	
208	**Pb**	1	**0.092**	ug/l	0.92	15.1	4500	209	P	
238	**U**	1	**0.158**	ug/l	1.58	1.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69956	1.01	81580	**85.8**	30	-	125	
45	Sc	1	1328095	2.03	1568000	**84.7**	30	-	125	
74	Ge	1	3555848	1.29	3965000	**89.7**	30	-	125	
103	Rh	1	5166126	1.24	5756000	**89.8**	30	-	125	
165	Ho	1	2798682	0.10	2702000	**103.6**	30	-	125	
175	Lu	1	2488601	0.85	2349000	**105.9**	30	-	125	
209	Bi	1	3217192	0.67	2910000	**110.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\201SMPL.D\201SMPL.D#
Date Acquired: Sep 16 2011 05:49 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-B-3-G Vial Number: 3202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.006**	ug/l	0.06	237.7	900	6	P	
23	**Na**	1	**7814.000**	ug/l	78,140.00	2.0	450000	6	A	
24	**Mg**	1	**85.220**	ug/l	852.20	2.3	450000	6	P	
27	**Al**	1	**262.000**	ug/l	2,620.00	1.3	450000	6	P	
31	**P**	1	**31.030**	ug/l	310.30	1.3	450000	6	P	
39	**K**	1	**102.400**	ug/l	1,024.00	5.7	450000	45	P	
44	**Ca**	1	**440.600**	ug/l	4,406.00	2.4	450000	45	P	
47	**Ti**	1	**23.240**	ug/l	232.40	3.6	4500	45	P	
51	**V**	1	**3.620**	ug/l	36.20	3.0	4500	45	P	
52	**Cr**	1	**0.322**	ug/l	3.22	6.1	4500	45	P	
55	**Mn**	1	**17.720**	ug/l	177.20	3.3	4500	45	P	
57	**Fe**	1	**358.300**	ug/l	3,583.00	1.9	450000	74	P	
59	**Co**	1	**0.255**	ug/l	2.55	7.4	4500	45	P	
60	**Ni**	1	**0.123**	ug/l	1.23	7.0	4500	45	P	
63	**Cu**	1	**5.186**	ug/l	51.86	3.0	4500	45	P	
66	**Zn**	1	**3.838**	ug/l	38.38	2.6	4500	74	P	
75	**As**	1	**0.208**	ug/l	2.08	15.1	4500	45	P	
78	**Se**	1	**-0.252**	ug/l	-2.52	11.4	4500	45	P	
88	**Sr**	1	**2.133**	ug/l	21.33	3.1	4500	45	P	
95	**Mo**	1	**0.122**	ug/l	1.22	6.5	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	186.8	4500	103	P	
111	**Cd**	1	**0.011**	ug/l	0.11	87.6	4500	103	P	
118	**Sn**	1	**0.165**	ug/l	1.65	18.5	4500	103	P	
123	**Sb**	1	**0.035**	ug/l	0.35	19.2	4500	103	P	
135	**Ba**	1	**7.046**	ug/l	70.46	2.3	4500	103	P	
200	**Hg**	1	**0.001**	ug/l	0.01	459.6	45	209	P	
205	**Tl**	1	**0.197**	ug/l	1.97	20.6	4500	165	P	
208	**Pb**	1	**2.387**	ug/l	23.87	2.8	4500	209	P	
238	**U**	1	**0.099**	ug/l	0.99	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71755	1.95	81580	**88.0**	30	-	125	
45	Sc	1	1351792	3.21	1568000	**86.2**	30	-	125	
74	Ge	1	3528458	0.87	3965000	**89.0**	30	-	125	
103	Rh	1	5162499	0.66	5756000	**89.7**	30	-	125	
165	Ho	1	2844457	1.00	2702000	**105.3**	30	-	125	
175	Lu	1	2538286	0.86	2349000	**108.1**	30	-	125	
209	Bi	1	3263520	2.33	2910000	**112.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\202SMPL.D\202SMPL.D#
Date Acquired: Sep 16 2011 05:53 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-B-5-G Vial Number: 3203
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.015**	ug/l	-0.15	35.3	900	6	P	
23	**Na**	1	**5825.000**	ug/l	58,250.00	0.2	450000	6	A	
24	**Mg**	1	**291.900**	ug/l	2,919.00	1.1	450000	6	P	
27	**Al**	1	**46.280**	ug/l	462.80	1.9	450000	6	P	
31	**P**	1	**2.800**	ug/l	28.00	34.8	450000	6	P	
39	**K**	1	**258.400**	ug/l	2,584.00	3.3	450000	45	P	
44	**Ca**	1	**1040.000**	ug/l	10,400.00	1.8	450000	45	P	
47	**Ti**	1	**3.690**	ug/l	36.90	3.5	4500	45	P	
51	**V**	1	**0.806**	ug/l	8.06	6.6	4500	45	P	
52	**Cr**	1	**0.231**	ug/l	2.31	7.8	4500	45	P	
55	**Mn**	1	**0.764**	ug/l	7.64	1.2	4500	45	P	
57	**Fe**	1	**37.090**	ug/l	370.90	5.2	450000	74	P	
59	**Co**	1	**0.048**	ug/l	0.48	6.6	4500	45	P	
60	**Ni**	1	**0.163**	ug/l	1.63	5.8	4500	45	P	
63	**Cu**	1	**0.507**	ug/l	5.07	5.4	4500	45	P	
66	**Zn**	1	**1.019**	ug/l	10.19	5.4	4500	74	P	
75	**As**	1	**0.132**	ug/l	1.32	23.1	4500	45	P	
78	**Se**	1	**-0.183**	ug/l	-1.83	34.2	4500	45	P	
88	**Sr**	1	**5.274**	ug/l	52.74	2.2	4500	45	P	
95	**Mo**	1	**1.216**	ug/l	12.16	3.6	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	365.1	4500	103	P	
111	**Cd**	1	**-0.008**	ug/l	-0.08	17.9	4500	103	P	
118	**Sn**	1	**0.131**	ug/l	1.31	6.6	4500	103	P	
123	**Sb**	1	**0.192**	ug/l	1.92	8.8	4500	103	P	
135	**Ba**	1	**0.869**	ug/l	8.69	1.4	4500	103	P	
200	**Hg**	1	**0.001**	ug/l	0.01	332.6	45	209	P	
205	**Tl**	1	**0.144**	ug/l	1.44	15.6	4500	165	P	
208	**Pb**	1	**0.478**	ug/l	4.78	2.5	4500	209	P	
238	**U**	1	**0.127**	ug/l	1.27	2.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70043	1.04	81580	**85.9**	30	-	125	
45	Sc	1	1352543	2.04	1568000	**86.3**	30	-	125	
74	Ge	1	3522816	0.22	3965000	**88.8**	30	-	125	
103	Rh	1	5216820	0.67	5756000	**90.6**	30	-	125	
165	Ho	1	2789863	1.97	2702000	**103.3**	30	-	125	
175	Lu	1	2508515	0.75	2349000	**106.8**	30	-	125	
209	Bi	1	3236674	1.81	2910000	**111.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\203SMPL.D\203SMPL.D#
Date Acquired: Sep 16 2011 05:58 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-B-6-G Vial Number: 3204
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.10	171.5	900	6	P	
23	**Na**	1	**6320.000**	ug/l	63,200.00	1.5	450000	6	A	
24	**Mg**	1	**89.950**	ug/l	899.50	2.5	450000	6	P	
27	**Al**	1	**270.000**	ug/l	2,700.00	1.9	450000	6	P	
31	**P**	1	**32.200**	ug/l	322.00	5.6	450000	6	P	
39	**K**	1	**29.920**	ug/l	299.20	12.8	450000	45	P	
44	**Ca**	1	**290.700**	ug/l	2,907.00	2.0	450000	45	P	
47	**Ti**	1	**17.230**	ug/l	172.30	2.4	4500	45	P	
51	**V**	1	**25.320**	ug/l	253.20	2.2	4500	45	P	
52	**Cr**	1	**0.350**	ug/l	3.50	10.2	4500	45	P	
55	**Mn**	1	**8.625**	ug/l	86.25	2.1	4500	45	P	
57	**Fe**	1	**213.800**	ug/l	2,138.00	0.2	450000	74	P	
59	**Co**	1	**0.176**	ug/l	1.76	7.5	4500	45	P	
60	**Ni**	1	**0.146**	ug/l	1.46	16.4	4500	45	P	
63	**Cu**	1	**2.295**	ug/l	22.95	4.6	4500	45	P	
66	**Zn**	1	**2.348**	ug/l	23.48	2.4	4500	74	P	
75	**As**	1	**2.550**	ug/l	25.50	2.7	4500	45	P	
78	**Se**	1	**-0.083**	ug/l	-0.83	21.2	4500	45	P	
88	**Sr**	1	**1.415**	ug/l	14.15	3.2	4500	45	P	
95	**Mo**	1	**0.177**	ug/l	1.77	12.3	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	35.3	4500	103	P	
111	**Cd**	1	**-0.004**	ug/l	-0.04	55.8	4500	103	P	
118	**Sn**	1	**0.130**	ug/l	1.30	16.8	4500	103	P	
123	**Sb**	1	**0.028**	ug/l	0.28	11.0	4500	103	P	
135	**Ba**	1	**3.169**	ug/l	31.69	2.4	4500	103	P	
200	**Hg**	1	**0.003**	ug/l	0.03	157.6	45	209	P	
205	**Tl**	1	**0.110**	ug/l	1.10	23.4	4500	165	P	
208	**Pb**	1	**0.729**	ug/l	7.29	1.3	4500	209	P	
238	**U**	1	**0.163**	ug/l	1.63	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69976	1.43	81580	**85.8**	30	-	125	
45	Sc	1	1336749	2.35	1568000	**85.3**	30	-	125	
74	Ge	1	3526406	0.77	3965000	**88.9**	30	-	125	
103	Rh	1	5159803	0.05	5756000	**89.6**	30	-	125	
165	Ho	1	2853674	1.40	2702000	**105.6**	30	-	125	
175	Lu	1	2492180	1.15	2349000	**106.1**	30	-	125	
209	Bi	1	3234847	2.04	2910000	**111.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\204SMPL.D\204SMPL.D#
Date Acquired: Sep 16 2011 06:02 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-A-7-J Vial Number: 3205
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.032**	ug/l	0.32	21.9	900	6	P	
23	**Na**	1	**5623.000**	ug/l	56,230.00	1.5	450000	6	A	
24	**Mg**	1	**137.600**	ug/l	1,376.00	0.5	450000	6	P	
27	**Al**	1	**386.200**	ug/l	3,862.00	1.4	450000	6	P	
31	**P**	1	**43.590**	ug/l	435.90	4.6	450000	6	P	
39	**K**	1	**57.230**	ug/l	572.30	2.9	450000	45	P	
44	**Ca**	1	**681.100**	ug/l	6,811.00	1.2	450000	45	P	
47	**Ti**	1	**23.450**	ug/l	234.50	1.8	4500	45	P	
51	**V**	1	**12.650**	ug/l	126.50	2.9	4500	45	P	
52	**Cr**	1	**0.343**	ug/l	3.43	8.4	4500	45	P	
55	**Mn**	1	**10.500**	ug/l	105.00	2.5	4500	45	P	
57	**Fe**	1	**253.600**	ug/l	2,536.00	0.7	450000	74	P	
59	**Co**	1	**0.306**	ug/l	3.06	2.9	4500	45	P	
60	**Ni**	1	**0.284**	ug/l	2.84	5.7	4500	45	P	
63	**Cu**	1	**4.889**	ug/l	48.89	2.5	4500	45	P	
66	**Zn**	1	**8.125**	ug/l	81.25	1.8	4500	74	P	
75	**As**	1	**0.676**	ug/l	6.76	4.0	4500	45	P	
78	**Se**	1	**-0.037**	ug/l	-0.37	199.9	4500	45	P	
88	**Sr**	1	**4.172**	ug/l	41.72	1.2	4500	45	P	
95	**Mo**	1	**0.238**	ug/l	2.38	7.9	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	93.8	4500	103	P	
111	**Cd**	1	**0.016**	ug/l	0.16	35.1	4500	103	P	
118	**Sn**	1	**0.076**	ug/l	0.76	28.9	4500	103	P	
123	**Sb**	1	**0.022**	ug/l	0.22	34.7	4500	103	P	
135	**Ba**	1	**9.583**	ug/l	95.83	1.1	4500	103	P	
200	**Hg**	1	**-0.003**	ug/l	-0.03	35.3	45	209	P	
205	**Tl**	1	**0.092**	ug/l	0.92	22.9	4500	165	P	
208	**Pb**	1	**1.041**	ug/l	10.41	0.3	4500	209	P	
238	**U**	1	**0.316**	ug/l	3.16	1.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69796	0.98	81580	**85.6**	30	-	125	
45	Sc	1	1330792	0.94	1568000	**84.9**	30	-	125	
74	Ge	1	3540622	0.71	3965000	**89.3**	30	-	125	
103	Rh	1	5202061	2.34	5756000	**90.4**	30	-	125	
165	Ho	1	2820239	1.34	2702000	**104.4**	30	-	125	
175	Lu	1	2513526	1.28	2349000	**107.0**	30	-	125	
209	Bi	1	3217309	0.37	2910000	**110.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\205SMPL.D\205SMPL.D#
Date Acquired: Sep 16 2011 06:07 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-B-8-G Vial Number: 3206
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.002**	ug/l	-0.02	506.6	900	6	P	
23	**Na**	1	**4785.000**	ug/l	47,850.00	3.6	450000	6	A	
24	**Mg**	1	**76.590**	ug/l	765.90	0.8	450000	6	P	
27	**Al**	1	**190.600**	ug/l	1,906.00	1.6	450000	6	P	
31	**P**	1	**17.600**	ug/l	176.00	3.8	450000	6	P	
39	**K**	1	**25.260**	ug/l	252.60	15.5	450000	45	P	
44	**Ca**	1	**326.300**	ug/l	3,263.00	0.5	450000	45	P	
47	**Ti**	1	**15.160**	ug/l	151.60	1.8	4500	45	P	
51	**V**	1	**17.880**	ug/l	178.80	1.7	4500	45	P	
52	**Cr**	1	**0.263**	ug/l	2.63	2.6	4500	45	P	
55	**Mn**	1	**5.489**	ug/l	54.89	2.3	4500	45	P	
57	**Fe**	1	**140.900**	ug/l	1,409.00	3.1	450000	74	P	
59	**Co**	1	**0.155**	ug/l	1.55	4.0	4500	45	P	
60	**Ni**	1	**0.099**	ug/l	0.99	20.8	4500	45	P	
63	**Cu**	1	**1.691**	ug/l	16.91	2.4	4500	45	P	
66	**Zn**	1	**1.153**	ug/l	11.53	3.3	4500	74	P	
75	**As**	1	**1.070**	ug/l	10.70	0.3	4500	45	P	
78	**Se**	1	**-0.207**	ug/l	-2.07	25.9	4500	45	P	
88	**Sr**	1	**1.328**	ug/l	13.28	0.6	4500	45	P	
95	**Mo**	1	**0.142**	ug/l	1.42	2.2	4500	74	P	
109	**Ag**	1	**0.001**	ug/l	0.01	70.2	4500	103	P	
111	**Cd**	1	**-0.004**	ug/l	-0.04	94.0	4500	103	P	
118	**Sn**	1	**0.068**	ug/l	0.68	11.2	4500	103	P	
123	**Sb**	1	**0.029**	ug/l	0.29	23.2	4500	103	P	
135	**Ba**	1	**2.998**	ug/l	29.98	4.6	4500	103	P	
200	**Hg**	1	**-0.003**	ug/l	-0.03	14.2	45	209	P	
205	**Tl**	1	**0.082**	ug/l	0.82	20.0	4500	165	P	
208	**Pb**	1	**0.775**	ug/l	7.75	2.2	4500	209	P	
238	**U**	1	**0.240**	ug/l	2.40	3.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69434	1.69	81580	**85.1**	30	-	125	
45	Sc	1	1334563	1.97	1568000	**85.1**	30	-	125	
74	Ge	1	3541167	2.02	3965000	**89.3**	30	-	125	
103	Rh	1	5232058	1.94	5756000	**90.9**	30	-	125	
165	Ho	1	2843206	2.37	2702000	**105.2**	30	-	125	
175	Lu	1	2534101	1.71	2349000	**107.9**	30	-	125	
209	Bi	1	3278186	1.95	2910000	**112.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\206SMPL.D\206SMPL.D#
Date Acquired: Sep 16 2011 06:11 am Acq. Method: 00He_ALL.M
Sample Name: 580-28286-B-9-G Vial Number: 3207
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.007**	ug/l	-0.07	38.0	900	6	P	
23	**Na**	1	**5419.000**	ug/l	54,190.00	1.9	450000	6	A	
24	**Mg**	1	**71.200**	ug/l	712.00	3.2	450000	6	P	
27	**Al**	1	**228.700**	ug/l	2,287.00	1.2	450000	6	P	
31	**P**	1	**24.540**	ug/l	245.40	18.9	450000	6	P	
39	**K**	1	**17.510**	ug/l	175.10	22.2	450000	45	P	
44	**Ca**	1	**246.500**	ug/l	2,465.00	1.5	450000	45	P	
47	**Ti**	1	**14.780**	ug/l	147.80	3.7	4500	45	P	
51	**V**	1	**26.980**	ug/l	269.80	4.1	4500	45	P	
52	**Cr**	1	**0.345**	ug/l	3.45	8.9	4500	45	P	
55	**Mn**	1	**6.088**	ug/l	60.88	2.6	4500	45	P	
57	**Fe**	1	**185.600**	ug/l	1,856.00	3.1	450000	74	P	
59	**Co**	1	**0.139**	ug/l	1.39	7.8	4500	45	P	
60	**Ni**	1	**0.149**	ug/l	1.49	21.9	4500	45	P	
63	**Cu**	1	**1.882**	ug/l	18.82	3.3	4500	45	P	
66	**Zn**	1	**2.184**	ug/l	21.84	5.5	4500	74	P	
75	**As**	1	**2.357**	ug/l	23.57	2.1	4500	45	P	
78	**Se**	1	**-0.132**	ug/l	-1.32	51.1	4500	45	P	
88	**Sr**	1	**1.067**	ug/l	10.67	3.3	4500	45	P	
95	**Mo**	1	**0.150**	ug/l	1.50	11.8	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	320.6	4500	103	P	
111	**Cd**	1	**-0.005**	ug/l	-0.05	60.3	4500	103	P	
118	**Sn**	1	**0.051**	ug/l	0.51	37.5	4500	103	P	
123	**Sb**	1	**0.020**	ug/l	0.20	37.1	4500	103	P	
135	**Ba**	1	**2.427**	ug/l	24.27	2.0	4500	103	P	
200	**Hg**	1	**0.000**	ug/l	0.00	1157.9	45	209	P	
205	**Tl**	1	**0.069**	ug/l	0.69	30.5	4500	165	P	
208	**Pb**	1	**0.564**	ug/l	5.64	3.1	4500	209	P	
238	**U**	1	**0.155**	ug/l	1.55	1.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70080	2.12	81580	**85.9**	30	-	125	
45	Sc	1	1302032	2.92	1568000	**83.0**	30	-	125	
74	Ge	1	3480783	0.67	3965000	**87.8**	30	-	125	
103	Rh	1	5163767	1.49	5756000	**89.7**	30	-	125	
165	Ho	1	2827792	1.64	2702000	**104.7**	30	-	125	
175	Lu	1	2477669	1.21	2349000	**105.5**	30	-	125	
209	Bi	1	3207723	1.79	2910000	**110.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\207SMPL.D\207SMPL.D#
Date Acquired: Sep 16 2011 06:16 am Acq. Method: 00He_ALL.M
Sample Name: 580-28224-A-1-K Vial Number: 3208
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	-0.01	808.6	900	6	P	
23	**Na**	1	**6152.000**	ug/l	61,520.00	2.5	450000	6	A	
24	**Mg**	1	**100.100**	ug/l	1,001.00	2.2	450000	6	P	
27	**Al**	1	**256.300**	ug/l	2,563.00	1.4	450000	6	P	
31	**P**	1	**49.470**	ug/l	494.70	5.1	450000	6	P	
39	**K**	1	**44.740**	ug/l	447.40	8.4	450000	45	P	
44	**Ca**	1	**434.700**	ug/l	4,347.00	1.4	450000	45	P	
47	**Ti**	1	**20.490**	ug/l	204.90	1.9	4500	45	P	
51	**V**	1	**4.436**	ug/l	44.36	4.0	4500	45	P	
52	**Cr**	1	**0.360**	ug/l	3.60	3.6	4500	45	P	
55	**Mn**	1	**9.563**	ug/l	95.63	1.1	4500	45	P	
57	**Fe**	1	**220.900**	ug/l	2,209.00	1.2	450000	74	P	
59	**Co**	1	**0.155**	ug/l	1.55	2.9	4500	45	P	
60	**Ni**	1	**0.099**	ug/l	0.99	3.9	4500	45	P	
63	**Cu**	1	**2.122**	ug/l	21.22	1.5	4500	45	P	
66	**Zn**	1	**1.325**	ug/l	13.25	5.2	4500	74	P	
75	**As**	1	**0.204**	ug/l	2.04	8.5	4500	45	P	
78	**Se**	1	**-0.153**	ug/l	-1.53	12.8	4500	45	P	
88	**Sr**	1	**1.929**	ug/l	19.29	3.1	4500	45	P	
95	**Mo**	1	**0.241**	ug/l	2.41	10.1	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	-0.01	141.0	4500	103	P	
111	**Cd**	1	**-0.002**	ug/l	-0.02	243.0	4500	103	P	
118	**Sn**	1	**0.048**	ug/l	0.48	29.6	4500	103	P	
123	**Sb**	1	**0.020**	ug/l	0.20	16.0	4500	103	P	
135	**Ba**	1	**6.183**	ug/l	61.83	2.0	4500	103	P	
200	**Hg**	1	**-0.002**	ug/l	-0.02	159.1	45	209	P	
205	**Tl**	1	**0.060**	ug/l	0.60	28.1	4500	165	P	
208	**Pb**	1	**0.377**	ug/l	3.77	2.3	4500	209	P	
238	**U**	1	**0.073**	ug/l	0.73	5.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69582	1.63	81580	**85.3**	30	-	125	
45	Sc	1	1330298	2.17	1568000	**84.8**	30	-	125	
74	Ge	1	3544765	0.86	3965000	**89.4**	30	-	125	
103	Rh	1	5141340	1.38	5756000	**89.3**	30	-	125	
165	Ho	1	2830520	1.57	2702000	**104.8**	30	-	125	
175	Lu	1	2509287	1.50	2349000	**106.8**	30	-	125	
209	Bi	1	3223694	1.14	2910000	**110.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\208SMPL.D\208SMPL.D#
Date Acquired: Sep 16 2011 06:20 am Acq. Method: 00He_ALL.M
Sample Name: 580-28224-B-2-C Vial Number: 3209
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.026**	ug/l	0.26	44.8	900	6	P	
23	**Na**	1	**4998.000**	ug/l	49,980.00	1.1	450000	6	A	
24	**Mg**	1	**204.400**	ug/l	2,044.00	0.4	450000	6	P	
27	**Al**	1	**273.900**	ug/l	2,739.00	1.4	450000	6	P	
31	**P**	1	**66.830**	ug/l	668.30	4.8	450000	6	P	
39	**K**	1	**83.280**	ug/l	832.80	5.4	450000	45	P	
44	**Ca**	1	**743.900**	ug/l	7,439.00	2.8	450000	45	P	
47	**Ti**	1	**14.590**	ug/l	145.90	2.3	4500	45	P	
51	**V**	1	**11.470**	ug/l	114.70	3.3	4500	45	P	
52	**Cr**	1	**0.277**	ug/l	2.77	4.1	4500	45	P	
55	**Mn**	1	**13.160**	ug/l	131.60	2.2	4500	45	P	
57	**Fe**	1	**115.800**	ug/l	1,158.00	1.1	450000	74	P	
59	**Co**	1	**0.146**	ug/l	1.46	5.6	4500	45	P	
60	**Ni**	1	**0.053**	ug/l	0.53	2.9	4500	45	P	
63	**Cu**	1	**3.181**	ug/l	31.81	2.2	4500	45	P	
66	**Zn**	1	**1.601**	ug/l	16.01	4.4	4500	74	P	
75	**As**	1	**0.225**	ug/l	2.25	23.8	4500	45	P	
78	**Se**	1	**-0.135**	ug/l	-1.35	62.4	4500	45	P	
88	**Sr**	1	**4.854**	ug/l	48.54	4.6	4500	45	P	
95	**Mo**	1	**0.048**	ug/l	0.48	16.6	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	460.7	4500	103	P	
111	**Cd**	1	**-0.005**	ug/l	-0.05	199.1	4500	103	P	
118	**Sn**	1	**0.061**	ug/l	0.61	19.0	4500	103	P	
123	**Sb**	1	**0.016**	ug/l	0.16	27.2	4500	103	P	
135	**Ba**	1	**12.860**	ug/l	128.60	1.2	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.04	94.4	45	209	P	
205	**Tl**	1	**0.051**	ug/l	0.51	16.7	4500	165	P	
208	**Pb**	1	**0.397**	ug/l	3.97	3.1	4500	209	P	
238	**U**	1	**0.081**	ug/l	0.81	3.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69757	0.65	81580	**85.5**	30	-	125	
45	Sc	1	1329688	2.10	1568000	**84.8**	30	-	125	
74	Ge	1	3478567	0.48	3965000	**87.7**	30	-	125	
103	Rh	1	5138057	1.02	5756000	**89.3**	30	-	125	
165	Ho	1	2859022	1.41	2702000	**105.8**	30	-	125	
175	Lu	1	2498944	0.39	2349000	**106.4**	30	-	125	
209	Bi	1	3233600	1.58	2910000	**111.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\209SMPL.D\209SMPL.D#
Date Acquired: Sep 16 2011 06:24 am Acq. Method: 00He_ALL.M
Sample Name: 580-28224-B-3-D Vial Number: 3210
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.009**	ug/l	0.09	189.4	900	6	P	
23	**Na**	1	**6930.000**	ug/l	69,300.00	1.9	450000	6	A	
24	**Mg**	1	**303.900**	ug/l	3,039.00	1.7	450000	6	P	
27	**Al**	1	**204.100**	ug/l	2,041.00	1.0	450000	6	P	
31	**P**	1	**51.470**	ug/l	514.70	3.4	450000	6	P	
39	**K**	1	**110.900**	ug/l	1,109.00	4.6	450000	45	P	
44	**Ca**	1	**981.900**	ug/l	9,819.00	1.3	450000	45	P	
47	**Ti**	1	**12.480**	ug/l	124.80	2.0	4500	45	P	
51	**V**	1	**10.420**	ug/l	104.20	2.8	4500	45	P	
52	**Cr**	1	**0.421**	ug/l	4.21	10.3	4500	45	P	
55	**Mn**	1	**5.929**	ug/l	59.29	1.6	4500	45	P	
57	**Fe**	1	**75.280**	ug/l	752.80	3.0	450000	74	P	
59	**Co**	1	**0.102**	ug/l	1.02	21.7	4500	45	P	
60	**Ni**	1	**0.068**	ug/l	0.68	13.1	4500	45	P	
63	**Cu**	1	**1.742**	ug/l	17.42	2.2	4500	45	P	
66	**Zn**	1	**2.312**	ug/l	23.12	2.2	4500	74	P	
75	**As**	1	**0.216**	ug/l	2.16	12.9	4500	45	P	
78	**Se**	1	**-0.239**	ug/l	-2.39	10.7	4500	45	P	
88	**Sr**	1	**3.716**	ug/l	37.16	3.4	4500	45	P	
95	**Mo**	1	**0.067**	ug/l	0.67	15.4	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	541.2	4500	103	P	
111	**Cd**	1	**0.007**	ug/l	0.07	122.6	4500	103	P	
118	**Sn**	1	**0.088**	ug/l	0.88	26.5	4500	103	P	
123	**Sb**	1	**0.011**	ug/l	0.11	64.0	4500	103	P	
135	**Ba**	1	**8.169**	ug/l	81.69	1.1	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	-0.04	23.6	45	209	P	
205	**Tl**	1	**0.041**	ug/l	0.41	30.6	4500	165	P	
208	**Pb**	1	**0.277**	ug/l	2.77	2.9	4500	209	P	
238	**U**	1	**0.041**	ug/l	0.41	1.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	69511	1.08	81580	**85.2**	30 - 125	
45	Sc	1	1314150	2.28	1568000	**83.8**	30 - 125	
74	Ge	1	3472121	1.12	3965000	**87.6**	30 - 125	
103	Rh	1	5109216	1.19	5756000	**88.8**	30 - 125	
165	Ho	1	2796594	1.05	2702000	**103.5**	30 - 125	
175	Lu	1	2486768	1.88	2349000	**105.9**	30 - 125	
209	Bi	1	3226179	0.76	2910000	**110.9**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\210SMPL.D\210SMPL.D#
Date Acquired: Sep 16 2011 06:29 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**47.040**	ug/l	47.04	1.7	900	6	P	
23	Na	1	**4572.000**	ug/l	4,572.00	2.7	450000	6	A	
24	Mg	1	**4580.000**	ug/l	4,580.00	1.1	450000	6	A	
27	Al	1	**454.800**	ug/l	454.80	0.7	450000	6	P	
31	P	1	**4001.000**	ug/l	4,001.00	1.0	450000	6	P	
39	K	1	**4233.000**	ug/l	4,233.00	4.7	450000	45	A	
44	Ca	1	**4555.000**	ug/l	4,555.00	4.1	450000	45	P	
47	Ti	1	**45.580**	ug/l	45.58	3.3	4500	45	P	
51	V	1	**45.850**	ug/l	45.85	5.1	4500	45	P	
52	Cr	1	**47.500**	ug/l	47.50	4.5	4500	45	P	
55	Mn	1	**49.000**	ug/l	49.00	3.7	4500	45	P	
57	Fe	1	**4513.000**	ug/l	4,513.00	1.3	450000	74	P	
59	Co	1	**46.340**	ug/l	46.34	4.7	4500	45	P	
60	Ni	1	**47.660**	ug/l	47.66	4.2	4500	45	P	
63	Cu	1	**48.520**	ug/l	48.52	4.6	4500	45	P	
66	Zn	1	**47.830**	ug/l	47.83	1.2	4500	74	P	
75	As	1	**47.700**	ug/l	47.70	3.8	4500	45	P	
78	Se	1	**49.840**	ug/l	49.84	3.4	4500	45	P	
88	Sr	1	**49.190**	ug/l	49.19	3.2	4500	45	P	
95	Mo	1	**46.730**	ug/l	46.73	1.4	4500	74	P	
109	Ag	1	**45.840**	ug/l	45.84	0.4	4500	103	P	
111	Cd	1	**48.130**	ug/l	48.13	1.2	4500	103	P	
118	Sn	1	**47.110**	ug/l	47.11	0.7	4500	103	P	
123	Sb	1	**48.070**	ug/l	48.07	0.3	4500	103	P	
135	Ba	1	**45.790**	ug/l	45.79	2.0	4500	103	P	
200	Hg	1	**2.278**	ug/l	2.28	1.5	45	209	P	
205	Tl	1	**49.560**	ug/l	49.56	2.7	4500	165	A	
208	Pb	1	**45.760**	ug/l	45.76	1.3	4500	209	P	
238	U	1	**51.670**	ug/l	51.67	1.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69184	0.96	81580	**84.8**	30	-	125	
45	Sc	1	1330239	4.00	1568000	**84.8**	30	-	125	
74	Ge	1	3497427	1.02	3965000	**88.2**	30	-	125	
103	Rh	1	5049375	0.39	5756000	**87.7**	30	-	125	
165	Ho	1	2769590	1.38	2702000	**102.5**	30	-	125	
175	Lu	1	2499817	1.27	2349000	**106.4**	30	-	125	
209	Bi	1	3162879	0.71	2910000	**108.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\211SMPL.D\211SMPL.D#
Date Acquired: Sep 16 2011 06:33 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	0.00	328.6	900	6	P	
23	**Na**	1	**25.070**	ug/l	25.07	10.6	450000	6	P	
24	**Mg**	1	**0.998**	ug/l	1.00	8.6	450000	6	P	
27	**Al**	1	**0.096**	ug/l	0.10	93.5	450000	6	P	
31	**P**	1	**-2.695**	ug/l	-2.70	128.4	450000	6	P	
39	**K**	1	**-32.960**	ug/l	-32.96	13.5	450000	45	P	
44	**Ca**	1	**0.096**	ug/l	0.10	483.0	450000	45	P	
47	**Ti**	1	**0.025**	ug/l	0.02	66.5	4500	45	P	
51	**V**	1	**-0.306**	ug/l	-0.31	6.2	4500	45	P	
52	**Cr**	1	**0.000**	ug/l	0.00	2397.7	4500	45	P	
55	**Mn**	1	**0.031**	ug/l	0.03	27.9	4500	45	P	
57	**Fe**	1	**1.737**	ug/l	1.74	10.3	450000	74	P	
59	**Co**	1	**0.014**	ug/l	0.01	39.3	4500	45	P	
60	**Ni**	1	**0.012**	ug/l	0.01	88.1	4500	45	P	
63	**Cu**	1	**0.031**	ug/l	0.03	88.0	4500	45	P	
66	**Zn**	1	**0.029**	ug/l	0.03	57.1	4500	74	P	
75	**As**	1	**0.002**	ug/l	0.00	835.8	4500	45	P	
78	**Se**	1	**-0.224**	ug/l	-0.22	38.9	4500	45	P	
88	**Sr**	1	**0.026**	ug/l	0.03	48.5	4500	45	P	
95	**Mo**	1	**0.095**	ug/l	0.09	26.7	4500	74	P	
109	**Ag**	1	**0.007**	ug/l	0.01	18.0	4500	103	P	
111	**Cd**	1	**-0.001**	ug/l	0.00	311.7	4500	103	P	
118	**Sn**	1	**0.188**	ug/l	0.19	13.5	4500	103	P	
123	**Sb**	1	**0.051**	ug/l	0.05	13.6	4500	103	P	
135	**Ba**	1	**0.008**	ug/l	0.01	56.3	4500	103	P	
200	**Hg**	1	**0.004**	ug/l	0.00	61.0	45	209	P	
205	**Tl**	1	**0.320**	ug/l	0.32	16.5	4500	165	P	
208	**Pb**	1	**0.012**	ug/l	0.01	13.5	4500	209	P	
238	**U**	1	**0.022**	ug/l	0.02	20.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69300	2.34	81580	**84.9**	30	-	125	
45	Sc	1	1308530	5.40	1568000	**83.5**	30	-	125	
74	Ge	1	3473472	2.78	3965000	**87.6**	30	-	125	
103	Rh	1	5214351	5.74	5756000	**90.6**	30	-	125	
165	Ho	1	2823281	4.51	2702000	**104.5**	30	-	125	
175	Lu	1	2514723	4.50	2349000	**107.1**	30	-	125	
209	Bi	1	3261085	4.51	2910000	**112.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\212SMPL.D\212SMPL.D#
Date Acquired: Sep 16 2011 06:38 am Acq. Method: 00He_ALL.M
Sample Name: 580-28224-B-4-C Vial Number: 3301
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.08	165.9	900	6	P	
23	**Na**	1	**5615.000**	ug/l	56,150.00	1.2	450000	6	A	
24	**Mg**	1	**92.210**	ug/l	922.10	1.5	450000	6	P	
27	**Al**	1	**273.300**	ug/l	2,733.00	2.1	450000	6	P	
31	**P**	1	**9.846**	ug/l	98.46	13.7	450000	6	P	
39	**K**	1	**63.630**	ug/l	636.30	5.8	450000	45	P	
44	**Ca**	1	**407.600**	ug/l	4,076.00	2.6	450000	45	P	
47	**Ti**	1	**18.070**	ug/l	180.70	1.0	4500	45	P	
51	**V**	1	**5.966**	ug/l	59.66	1.9	4500	45	P	
52	**Cr**	1	**0.314**	ug/l	3.14	6.6	4500	45	P	
55	**Mn**	1	**3.000**	ug/l	30.00	3.6	4500	45	P	
57	**Fe**	1	**256.600**	ug/l	2,566.00	1.7	450000	74	P	
59	**Co**	1	**0.107**	ug/l	1.07	7.0	4500	45	P	
60	**Ni**	1	**0.075**	ug/l	0.75	29.7	4500	45	P	
63	**Cu**	1	**2.730**	ug/l	27.30	1.2	4500	45	P	
66	**Zn**	1	**1.464**	ug/l	14.64	0.9	4500	74	P	
75	**As**	1	**0.813**	ug/l	8.13	8.8	4500	45	P	
78	**Se**	1	**-0.185**	ug/l	-1.85	56.7	4500	45	P	
88	**Sr**	1	**2.576**	ug/l	25.76	3.4	4500	45	P	
95	**Mo**	1	**0.999**	ug/l	9.99	1.6	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.02	65.9	4500	103	P	
111	**Cd**	1	**0.003**	ug/l	0.03	147.4	4500	103	P	
118	**Sn**	1	**0.105**	ug/l	1.05	20.0	4500	103	P	
123	**Sb**	1	**0.031**	ug/l	0.31	8.2	4500	103	P	
135	**Ba**	1	**2.383**	ug/l	23.83	6.6	4500	103	P	
200	**Hg**	1	**-0.003**	ug/l	-0.03	103.4	45	209	P	
205	**Tl**	1	**0.134**	ug/l	1.34	16.9	4500	165	P	
208	**Pb**	1	**0.251**	ug/l	2.51	3.0	4500	209	P	
238	**U**	1	**0.480**	ug/l	4.80	2.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69205	0.93	81580	**84.8**	30	-	125	
45	Sc	1	1318332	1.58	1568000	**84.1**	30	-	125	
74	Ge	1	3456926	0.21	3965000	**87.2**	30	-	125	
103	Rh	1	5140882	0.73	5756000	**89.3**	30	-	125	
165	Ho	1	2824265	0.95	2702000	**104.5**	30	-	125	
175	Lu	1	2516593	1.37	2349000	**107.1**	30	-	125	
209	Bi	1	3237952	0.79	2910000	**111.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\213SMPL.D\213SMPL.D#
Date Acquired: Sep 16 2011 06:42 am Acq. Method: 00He_ALL.M
Sample Name: 580-28224-A-11-F Vial Number: 3302
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.089**	ug/l	0.89	31.0	900	6	P	
23	**Na**	1	**6933.000**	ug/l	69,330.00	2.2	450000	6	A	
24	**Mg**	1	**435.200**	ug/l	4,352.00	1.4	450000	6	P	
27	**Al**	1	**871.300**	ug/l	8,713.00	0.8	450000	6	P	
31	**P**	1	**148.900**	ug/l	1,489.00	1.5	450000	6	P	
39	**K**	1	**158.300**	ug/l	1,583.00	4.7	450000	45	P	
44	**Ca**	1	**1762.000**	ug/l	17,620.00	2.7	450000	45	P	
47	**Ti**	1	**71.280**	ug/l	712.80	2.6	4500	45	P	
51	**V**	1	**13.780**	ug/l	137.80	2.7	4500	45	P	
52	**Cr**	1	**0.418**	ug/l	4.18	2.9	4500	45	P	
55	**Mn**	1	**25.750**	ug/l	257.50	2.4	4500	45	P	
57	**Fe**	1	**796.800**	ug/l	7,968.00	2.9	450000	74	P	
59	**Co**	1	**0.633**	ug/l	6.33	0.9	4500	45	P	
60	**Ni**	1	**0.110**	ug/l	1.10	9.4	4500	45	P	
63	**Cu**	1	**8.716**	ug/l	87.16	3.3	4500	45	P	
66	**Zn**	1	**4.997**	ug/l	49.97	3.9	4500	74	P	
75	**As**	1	**0.324**	ug/l	3.24	5.7	4500	45	P	
78	**Se**	1	**-0.031**	ug/l	-0.31	209.2	4500	45	P	
88	**Sr**	1	**9.982**	ug/l	99.82	2.9	4500	45	P	
95	**Mo**	1	**0.138**	ug/l	1.38	7.3	4500	74	P	
109	**Ag**	1	**0.002**	ug/l	0.02	28.6	4500	103	P	
111	**Cd**	1	**0.024**	ug/l	0.24	27.3	4500	103	P	
118	**Sn**	1	**0.063**	ug/l	0.63	37.0	4500	103	P	
123	**Sb**	1	**0.016**	ug/l	0.16	44.8	4500	103	P	
135	**Ba**	1	**28.650**	ug/l	286.50	2.2	4500	103	P	
200	**Hg**	1	**-0.003**	ug/l	-0.03	123.7	45	209	P	
205	**Tl**	1	**0.078**	ug/l	0.78	17.4	4500	165	P	
208	**Pb**	1	**1.663**	ug/l	16.63	2.8	4500	209	P	
238	**U**	1	**0.266**	ug/l	2.66	2.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68785	0.73	81580	**84.3**	30	-	125	
45	Sc	1	1299869	2.06	1568000	**82.9**	30	-	125	
74	Ge	1	3427934	1.95	3965000	**86.5**	30	-	125	
103	Rh	1	5084673	1.27	5756000	**88.3**	30	-	125	
165	Ho	1	2855209	0.86	2702000	**105.7**	30	-	125	
175	Lu	1	2530569	1.34	2349000	**107.7**	30	-	125	
209	Bi	1	3249059	2.41	2910000	**111.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\214SMPL.D\214SMPL.D#
Date Acquired: Sep 16 2011 06:46 am Acq. Method: 00He_ALL.M
Sample Name: 580-28224-B-12-C Vial Number: 3303
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.012**	ug/l	0.12	118.3	900	6	P	
23	Na	1	**6694.000**	ug/l	66,940.00	1.9	450000	6	A	
24	Mg	1	**101.600**	ug/l	1,016.00	2.6	450000	6	P	
27	Al	1	**259.700**	ug/l	2,597.00	3.6	450000	6	P	
31	P	1	**92.380**	ug/l	923.80	3.5	450000	6	P	
39	K	1	**47.930**	ug/l	479.30	23.7	450000	45	P	
44	Ca	1	**391.100**	ug/l	3,911.00	7.5	450000	45	P	
47	Ti	1	**20.980**	ug/l	209.80	9.5	4500	45	P	
51	V	1	**6.546**	ug/l	65.46	9.4	4500	45	P	
52	Cr	1	**0.270**	ug/l	2.70	14.7	4500	45	P	
55	Mn	1	**17.690**	ug/l	176.90	8.0	4500	45	P	
57	Fe	1	**209.600**	ug/l	2,096.00	2.8	450000	74	P	
59	Co	1	**0.161**	ug/l	1.61	7.0	4500	45	P	
60	Ni	1	**0.086**	ug/l	0.86	20.0	4500	45	P	
63	Cu	1	**3.115**	ug/l	31.15	8.9	4500	45	P	
66	Zn	1	**1.680**	ug/l	16.80	4.0	4500	74	P	
75	As	1	**1.235**	ug/l	12.35	6.6	4500	45	P	
78	Se	1	**-0.221**	ug/l	-2.21	20.8	4500	45	P	
88	Sr	1	**1.652**	ug/l	16.52	8.4	4500	45	P	
95	Mo	1	**0.225**	ug/l	2.25	4.6	4500	74	P	
109	Ag	1	**-0.001**	ug/l	-0.01	34.8	4500	103	P	
111	Cd	1	**-0.001**	ug/l	-0.01	1088.1	4500	103	P	
118	Sn	1	**0.054**	ug/l	0.54	8.8	4500	103	P	
123	Sb	1	**0.028**	ug/l	0.28	40.1	4500	103	P	
135	Ba	1	**6.294**	ug/l	62.94	5.9	4500	103	P	
200	Hg	1	**-0.005**	ug/l	-0.05	71.6	45	209	P	
205	Tl	1	**0.058**	ug/l	0.58	26.3	4500	165	P	
208	Pb	1	**0.412**	ug/l	4.12	6.6	4500	209	P	
238	U	1	**0.056**	ug/l	0.56	1.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	69471	2.18	81580	**85.2**	30	-	125	
45	Sc	1	1333015	7.55	1568000	**85.0**	30	-	125	
74	Ge	1	3533165	2.69	3965000	**89.1**	30	-	125	
103	Rh	1	5241382	4.50	5756000	**91.1**	30	-	125	
165	Ho	1	2885045	5.53	2702000	**106.8**	30	-	125	
175	Lu	1	2567415	5.50	2349000	**109.3**	30	-	125	
209	Bi	1	3267869	4.42	2910000	**112.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\215SMPL.D\215SMPL.D#
Date Acquired: Sep 16 2011 06:51 am Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-1-O Vial Number: 3304
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.022**	ug/l	0.22	42.3	900	6	P	
23	Na	1	**4806.000**	ug/l	48,060.00	1.8	450000	6	A	
24	Mg	1	**355.300**	ug/l	3,553.00	0.8	450000	6	P	
27	Al	1	**248.100**	ug/l	2,481.00	1.2	450000	6	P	
31	P	1	**17.800**	ug/l	178.00	12.5	450000	6	P	
39	K	1	**203.300**	ug/l	2,033.00	6.4	450000	45	P	
44	Ca	1	**2021.000**	ug/l	20,210.00	3.0	450000	45	P	
47	Ti	1	**2.178**	ug/l	21.78	2.3	4500	45	P	
51	V	1	**4.120**	ug/l	41.20	2.6	4500	45	P	
52	Cr	1	**0.103**	ug/l	1.03	13.8	4500	45	P	
55	Mn	1	**114.400**	ug/l	1,144.00	2.9	4500	45	P	
57	Fe	1	**187.000**	ug/l	1,870.00	2.9	450000	74	P	
59	Co	1	**1.452**	ug/l	14.52	2.6	4500	45	P	
60	Ni	1	**0.195**	ug/l	1.95	8.6	4500	45	P	
63	Cu	1	**5.434**	ug/l	54.34	4.6	4500	45	P	
66	Zn	1	**2.415**	ug/l	24.15	5.6	4500	74	P	
75	As	1	**7.313**	ug/l	73.13	2.8	4500	45	P	
78	Se	1	**-0.263**	ug/l	-2.63	46.0	4500	45	P	
88	Sr	1	**11.390**	ug/l	113.90	3.9	4500	45	P	
95	Mo	1	**0.040**	ug/l	0.40	24.7	4500	74	P	
109	Ag	1	**0.018**	ug/l	0.18	31.5	4500	103	P	
111	Cd	1	**0.006**	ug/l	0.06	106.9	4500	103	P	
118	Sn	1	**0.047**	ug/l	0.47	21.2	4500	103	P	
123	Sb	1	**0.108**	ug/l	1.08	13.7	4500	103	P	
135	Ba	1	**68.450**	ug/l	684.50	0.6	4500	103	P	
200	Hg	1	**-0.001**	ug/l	-0.01	344.1	45	209	P	
205	Tl	1	**0.156**	ug/l	1.56	17.1	4500	165	P	
208	Pb	1	**0.308**	ug/l	3.08	2.4	4500	209	P	
238	U	1	**0.051**	ug/l	0.51	7.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67500	1.72	81580	**82.7**	30	-	125	
45	Sc	1	1299208	2.59	1568000	**82.9**	30	-	125	
74	Ge	1	3411662	1.03	3965000	**86.0**	30	-	125	
103	Rh	1	5049115	0.76	5756000	**87.7**	30	-	125	
165	Ho	1	2822607	1.35	2702000	**104.5**	30	-	125	
175	Lu	1	2501957	2.02	2349000	**106.5**	30	-	125	
209	Bi	1	3226342	0.63	2910000	**110.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\216SMPL.D\216SMPL.D#
Date Acquired: Sep 16 2011 06:55 am Acq. Method: 00He_ALL.M
Sample Name: 580-28333-A-3-I Vial Number: 3305
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.011**	ug/l	-0.11	88.1	900	6	P	
23	Na	1	**6486.000**	ug/l	64,860.00	3.3	450000	6	A	
24	Mg	1	**87.890**	ug/l	878.90	2.0	450000	6	P	
27	Al	1	**98.100**	ug/l	981.00	2.6	450000	6	P	
31	P	1	**20.260**	ug/l	202.60	19.0	450000	6	P	
39	K	1	**95.210**	ug/l	952.10	3.2	450000	45	P	
44	Ca	1	**448.200**	ug/l	4,482.00	1.5	450000	45	P	
47	Ti	1	**5.887**	ug/l	58.87	1.9	4500	45	P	
51	V	1	**8.512**	ug/l	85.12	2.4	4500	45	P	
52	Cr	1	**0.283**	ug/l	2.83	9.7	4500	45	P	
55	Mn	1	**7.475**	ug/l	74.75	2.0	4500	45	P	
57	Fe	1	**81.290**	ug/l	812.90	2.8	450000	74	P	
59	Co	1	**0.124**	ug/l	1.24	8.7	4500	45	P	
60	Ni	1	**0.071**	ug/l	0.71	30.8	4500	45	P	
63	Cu	1	**3.284**	ug/l	32.84	0.6	4500	45	P	
66	Zn	1	**1.146**	ug/l	11.46	3.7	4500	74	P	
75	As	1	**13.250**	ug/l	132.50	1.9	4500	45	P	
78	Se	1	**-0.135**	ug/l	-1.35	68.8	4500	45	P	
88	Sr	1	**1.567**	ug/l	15.67	2.0	4500	45	P	
95	Mo	1	**0.685**	ug/l	6.85	2.3	4500	74	P	
109	Ag	1	**0.000**	ug/l	0.00	4750.0	4500	103	P	
111	Cd	1	**0.000**	ug/l	0.00	27276.0	4500	103	P	
118	Sn	1	**0.033**	ug/l	0.33	13.3	4500	103	P	
123	Sb	1	**0.427**	ug/l	4.27	1.9	4500	103	P	
135	Ba	1	**2.314**	ug/l	23.14	1.1	4500	103	P	
200	Hg	1	**-0.003**	ug/l	-0.03	68.5	45	209	P	
205	Tl	1	**0.043**	ug/l	0.43	32.4	4500	165	P	
208	Pb	1	**0.295**	ug/l	2.95	4.2	4500	209	P	
238	U	1	**0.044**	ug/l	0.44	4.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68154	1.05	81580	**83.5**	30	-	125	
45	Sc	1	1294246	1.41	1568000	**82.5**	30	-	125	
74	Ge	1	3454191	0.79	3965000	**87.1**	30	-	125	
103	Rh	1	5105500	1.35	5756000	**88.7**	30	-	125	
165	Ho	1	2814859	1.37	2702000	**104.2**	30	-	125	
175	Lu	1	2520381	1.94	2349000	**107.3**	30	-	125	
209	Bi	1	3220077	0.77	2910000	**110.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\217SMPL.D\217SMPL.D#
Date Acquired: Sep 16 2011 07:00 am Acq. Method: 00He_ALL.M
Sample Name: 580-28313-A-10-B Vial Number: 3306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	2.62	106.6	900	6	P	
23	**Na**	1	**25.930**	ug/l	25,930.00	6.2	450000	6	P	
24	**Mg**	1	**63.210**	ug/l	63,210.00	0.3	450000	6	P	
27	**Al**	1	**632.000**	ug/l	632,000.00	0.7	450000	6	P	
31	**P**	1	**11.410**	ug/l	11,410.00	28.6	450000	6	P	
39	**K**	1	**-7.405**	ug/l	-7,405.00	38.5	450000	45	P	
44	**Ca**	1	**71.400**	ug/l	71,400.00	4.2	450000	45	P	
47	**Ti**	1	**94.150**	ug/l	94,150.00	3.4	4500	45	P	
51	**V**	1	**6.049**	ug/l	6,049.00	4.1	4500	45	P	
52	**Cr**	1	**3.560**	ug/l	3,560.00	3.7	4500	45	P	
55	**Mn**	1	**54.300**	ug/l	54,300.00	3.1	4500	45	P	
57	**Fe**	1	**1858.000**	ug/l	1,858,000.00	1.0	450000	74	P	
59	**Co**	1	**1.653**	ug/l	1,653.00	3.4	4500	45	P	
60	**Ni**	1	**0.851**	ug/l	850.80	10.4	4500	45	P	
63	**Cu**	1	**2.979**	ug/l	2,979.00	4.4	4500	45	P	
66	**Zn**	1	**2.439**	ug/l	2,439.00	6.6	4500	74	P	
75	**As**	1	**0.008**	ug/l	8.23	318.2	4500	45	P	
78	**Se**	1	**-0.268**	ug/l	-267.70	13.2	4500	45	P	
88	**Sr**	1	**0.545**	ug/l	545.40	6.2	4500	45	P	
95	**Mo**	1	**0.010**	ug/l	10.28	87.0	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	-1.01	45.2	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.98	1293.1	4500	103	P	
118	**Sn**	1	**0.034**	ug/l	34.37	29.1	4500	103	P	
123	**Sb**	1	**0.008**	ug/l	8.02	74.8	4500	103	P	
135	**Ba**	1	**4.185**	ug/l	4,185.00	4.2	4500	103	P	
200	**Hg**	1	**-0.009**	ug/l	-8.78	14.3	45	209	P	
205	**Tl**	1	**0.028**	ug/l	27.56	52.8	4500	165	P	
208	**Pb**	1	**1.734**	ug/l	1,734.00	2.3	4500	209	P	
238	**U**	1	**0.013**	ug/l	13.32	7.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68833	1.20	81580	**84.4**	30	-	125	
45	Sc	1	1299972	3.04	1568000	**82.9**	30	-	125	
74	Ge	1	3488421	0.52	3965000	**88.0**	30	-	125	
103	Rh	1	5157266	0.34	5756000	**89.6**	30	-	125	
165	Ho	1	2758688	1.24	2702000	**102.1**	30	-	125	
175	Lu	1	2492750	2.83	2349000	**106.1**	30	-	125	
209	Bi	1	3252645	1.99	2910000	**111.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\218SMPL.D\218SMPL.D#
Date Acquired: Sep 16 2011 07:04 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.780**	ug/l	46.78	0.7	900	6	P	
23	**Na**	1	**4486.000**	ug/l	4,486.00	0.7	450000	6	A	
24	**Mg**	1	**4550.000**	ug/l	4,550.00	0.9	450000	6	A	
27	**Al**	1	**455.700**	ug/l	455.70	1.1	450000	6	P	
31	**P**	1	**3999.000**	ug/l	3,999.00	0.6	450000	6	P	
39	**K**	1	**4298.000**	ug/l	4,298.00	0.6	450000	45	A	
44	**Ca**	1	**4630.000**	ug/l	4,630.00	1.7	450000	45	P	
47	**Ti**	1	**45.740**	ug/l	45.74	2.2	4500	45	P	
51	**V**	1	**47.050**	ug/l	47.05	2.5	4500	45	P	
52	**Cr**	1	**48.350**	ug/l	48.35	2.4	4500	45	P	
55	**Mn**	1	**49.860**	ug/l	49.86	2.0	4500	45	P	
57	**Fe**	1	**4561.000**	ug/l	4,561.00	0.4	450000	74	P	
59	**Co**	1	**47.430**	ug/l	47.43	2.5	4500	45	P	
60	**Ni**	1	**48.440**	ug/l	48.44	2.9	4500	45	P	
63	**Cu**	1	**49.640**	ug/l	49.64	2.9	4500	45	P	
66	**Zn**	1	**48.110**	ug/l	48.11	0.3	4500	74	P	
75	**As**	1	**48.510**	ug/l	48.51	2.1	4500	45	P	
78	**Se**	1	**51.190**	ug/l	51.19	1.8	4500	45	P	
88	**Sr**	1	**50.310**	ug/l	50.31	2.5	4500	45	P	
95	**Mo**	1	**47.820**	ug/l	47.82	0.5	4500	74	P	
109	**Ag**	1	**45.270**	ug/l	45.27	1.2	4500	103	P	
111	**Cd**	1	**47.640**	ug/l	47.64	1.3	4500	103	P	
118	**Sn**	1	**46.390**	ug/l	46.39	0.1	4500	103	P	
123	**Sb**	1	**47.760**	ug/l	47.76	1.5	4500	103	P	
135	**Ba**	1	**45.570**	ug/l	45.57	2.4	4500	103	P	
200	**Hg**	1	**2.315**	ug/l	2.32	3.2	45	209	P	
205	**Tl**	1	**48.320**	ug/l	48.32	3.5	4500	165	A	
208	**Pb**	1	**45.460**	ug/l	45.46	3.6	4500	209	P	
238	**U**	1	**51.280**	ug/l	51.28	3.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	67827	1.00	81580	**83.1**	30	-	125	
45	Sc	1	1280353	2.58	1568000	**81.7**	30	-	125	
74	Ge	1	3407556	0.27	3965000	**85.9**	30	-	125	
103	Rh	1	5023964	0.77	5756000	**87.3**	30	-	125	
165	Ho	1	2776272	1.25	2702000	**102.7**	30	-	125	
175	Lu	1	2469126	1.23	2349000	**105.1**	30	-	125	
209	Bi	1	3163552	3.16	2910000	**108.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\219SMPL.D\219SMPL.D#
Date Acquired: Sep 16 2011 07:08 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.008**	ug/l	0.01	200.2	900	6	P	
23	**Na**	1	**27.950**	ug/l	27.95	3.5	450000	6	P	
24	**Mg**	1	**1.062**	ug/l	1.06	21.1	450000	6	P	
27	**Al**	1	**0.104**	ug/l	0.10	127.9	450000	6	P	
31	**P**	1	**-2.294**	ug/l	-2.29	101.3	450000	6	P	
39	**K**	1	**-32.800**	ug/l	-32.80	8.2	450000	45	P	
44	**Ca**	1	**0.239**	ug/l	0.24	110.6	450000	45	P	
47	**Ti**	1	**0.048**	ug/l	0.05	51.7	4500	45	P	
51	**V**	1	**-0.308**	ug/l	-0.31	2.5	4500	45	P	
52	**Cr**	1	**0.001**	ug/l	0.00	351.2	4500	45	P	
55	**Mn**	1	**0.044**	ug/l	0.04	40.4	4500	45	P	
57	**Fe**	1	**2.266**	ug/l	2.27	21.9	450000	74	P	
59	**Co**	1	**0.013**	ug/l	0.01	19.0	4500	45	P	
60	**Ni**	1	**0.006**	ug/l	0.01	81.0	4500	45	P	
63	**Cu**	1	**0.067**	ug/l	0.07	56.4	4500	45	P	
66	**Zn**	1	**0.017**	ug/l	0.02	187.3	4500	74	P	
75	**As**	1	**-0.020**	ug/l	-0.02	77.4	4500	45	P	
78	**Se**	1	**-0.246**	ug/l	-0.25	24.4	4500	45	P	
88	**Sr**	1	**0.029**	ug/l	0.03	25.4	4500	45	P	
95	**Mo**	1	**0.097**	ug/l	0.10	25.2	4500	74	P	
109	**Ag**	1	**0.011**	ug/l	0.01	40.1	4500	103	P	
111	**Cd**	1	**0.003**	ug/l	0.00	160.1	4500	103	P	
118	**Sn**	1	**0.142**	ug/l	0.14	14.2	4500	103	P	
123	**Sb**	1	**0.055**	ug/l	0.06	14.1	4500	103	P	
135	**Ba**	1	**0.014**	ug/l	0.01	99.1	4500	103	P	
200	**Hg**	1	**0.000**	ug/l	0.00	1603.9	45	209	P	
205	**Tl**	1	**0.327**	ug/l	0.33	11.0	4500	165	P	
208	**Pb**	1	**0.019**	ug/l	0.02	32.7	4500	209	P	
238	**U**	1	**0.023**	ug/l	0.02	6.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68329	1.75	81580	**83.8**	30	-	125	
45	Sc	1	1294582	1.68	1568000	**82.6**	30	-	125	
74	Ge	1	3447194	0.50	3965000	**86.9**	30	-	125	
103	Rh	1	5123780	0.84	5756000	**89.0**	30	-	125	
165	Ho	1	2775874	0.66	2702000	**102.7**	30	-	125	
175	Lu	1	2514723	0.82	2349000	**107.1**	30	-	125	
209	Bi	1	3247528	1.22	2910000	**111.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\220SMPL.D\220SMPL.D#
Date Acquired: Sep 16 2011 07:13 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95480/5-A Vial Number: 3401
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.010**	ug/l	-0.01	72.4	900	6	P	
23	**Na**	1	**26.840**	ug/l	26.84	3.3	450000	6	P	
24	**Mg**	1	**0.478**	ug/l	0.48	3.4	450000	6	P	
27	**Al**	1	**1.052**	ug/l	1.05	18.6	450000	6	P	
31	**P**	1	**-3.314**	ug/l	-3.31	72.1	450000	6	P	
39	**K**	1	**-30.830**	ug/l	-30.83	7.5	450000	45	P	
44	**Ca**	1	**3.811**	ug/l	3.81	18.8	450000	45	P	
47	**Ti**	1	**0.036**	ug/l	0.04	24.1	4500	45	P	
51	**V**	1	**-0.302**	ug/l	-0.30	9.5	4500	45	P	
52	**Cr**	1	**0.014**	ug/l	0.01	47.5	4500	45	P	
55	**Mn**	1	**0.060**	ug/l	0.06	20.2	4500	45	P	
57	**Fe**	1	**1.227**	ug/l	1.23	17.0	450000	74	P	
59	**Co**	1	**0.008**	ug/l	0.01	15.3	4500	45	P	
60	**Ni**	1	**0.076**	ug/l	0.08	16.1	4500	45	P	
63	**Cu**	1	**0.108**	ug/l	0.11	15.0	4500	45	P	
66	**Zn**	1	**0.262**	ug/l	0.26	12.1	4500	74	P	
75	**As**	1	**-0.041**	ug/l	-0.04	52.6	4500	45	P	
78	**Se**	1	**-0.232**	ug/l	-0.23	29.3	4500	45	P	
88	**Sr**	1	**0.046**	ug/l	0.05	8.1	4500	45	P	
95	**Mo**	1	**0.033**	ug/l	0.03	82.9	4500	74	P	
109	**Ag**	1	**0.004**	ug/l	0.00	54.3	4500	103	P	
111	**Cd**	1	**-0.007**	ug/l	-0.01	22.3	4500	103	P	
118	**Sn**	1	**0.056**	ug/l	0.06	33.2	4500	103	P	
123	**Sb**	1	**0.014**	ug/l	0.01	23.7	4500	103	P	
135	**Ba**	1	**0.037**	ug/l	0.04	53.2	4500	103	P	
200	**Hg**	1	**0.000**	ug/l	0.00	148.4	45	209	P	
205	**Tl**	1	**0.113**	ug/l	0.11	21.4	4500	165	P	
208	**Pb**	1	**0.006**	ug/l	0.01	224.7	4500	209	P	
238	**U**	1	**0.007**	ug/l	0.01	9.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68954	0.58	81580	**84.5**	30	-	125	
45	Sc	1	1257968	1.98	1568000	**80.2**	30	-	125	
74	Ge	1	3431789	1.95	3965000	**86.6**	30	-	125	
103	Rh	1	5471721	11.05	5756000	**95.1**	30	-	125	
165	Ho	1	2811038	1.84	2702000	**104.0**	30	-	125	
175	Lu	1	2482599	1.02	2349000	**105.7**	30	-	125	
209	Bi	1	3270481	1.48	2910000	**112.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\221SMPL.D\221SMPL.D#
Date Acquired: Sep 16 2011 07:17 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-D-2-A Vial Number: 3402
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.017**	ug/l	-0.02	16.0	900	6	P	
23	Na	1	**580.500**	ug/l	580.50	1.9	450000	6	A	
24	Mg	1	**278.900**	ug/l	278.90	0.1	450000	6	P	
27	Al	1	**3.184**	ug/l	3.18	8.2	450000	6	P	
31	P	1	**-2.734**	ug/l	-2.73	106.4	450000	6	P	
39	K	1	**134.100**	ug/l	134.10	7.2	450000	45	P	
44	Ca	1	**2167.000**	ug/l	2,167.00	3.6	450000	45	P	
47	Ti	1	**0.024**	ug/l	0.02	100.9	4500	45	P	
51	V	1	**-0.376**	ug/l	-0.38	3.1	4500	45	P	
52	Cr	1	**-0.007**	ug/l	-0.01	66.9	4500	45	P	
55	Mn	1	**49.120**	ug/l	49.12	4.2	4500	45	P	
57	Fe	1	**7.915**	ug/l	7.92	9.5	450000	74	P	
59	Co	1	**0.059**	ug/l	0.06	3.8	4500	45	P	
60	Ni	1	**0.193**	ug/l	0.19	10.7	4500	45	P	
63	Cu	1	**0.257**	ug/l	0.26	15.6	4500	45	P	
66	Zn	1	**0.750**	ug/l	0.75	5.3	4500	74	P	
75	As	1	**-0.013**	ug/l	-0.01	89.3	4500	45	P	
78	Se	1	**-0.241**	ug/l	-0.24	46.7	4500	45	P	
88	Sr	1	**21.840**	ug/l	21.84	4.1	4500	45	P	
95	Mo	1	**0.006**	ug/l	0.01	49.0	4500	74	P	
109	Ag	1	**0.000**	ug/l	0.00	1767.0	4500	103	P	
111	Cd	1	**-0.009**	ug/l	-0.01	81.2	4500	103	P	
118	Sn	1	**0.038**	ug/l	0.04	41.0	4500	103	P	
123	Sb	1	**0.011**	ug/l	0.01	20.5	4500	103	P	
135	Ba	1	**4.988**	ug/l	4.99	5.1	4500	103	P	
200	Hg	1	**-0.003**	ug/l	0.00	32.2	45	209	P	
205	Tl	1	**0.073**	ug/l	0.07	18.3	4500	165	P	
208	Pb	1	**0.002**	ug/l	0.00	762.4	4500	209	P	
238	U	1	**0.002**	ug/l	0.00	8.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71995	0.47	81580	**88.3**	30	-	125	
45	Sc	1	1302991	3.98	1568000	**83.1**	30	-	125	
74	Ge	1	3451103	0.64	3965000	**87.0**	30	-	125	
103	Rh	1	5111195	0.84	5756000	**88.8**	30	-	125	
165	Ho	1	2778090	0.87	2702000	**102.8**	30	-	125	
175	Lu	1	2490549	0.86	2349000	**106.0**	30	-	125	
209	Bi	1	3195606	2.62	2910000	**109.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\222SMPL.D\222SMPL.D#
Date Acquired: Sep 16 2011 07:22 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-D-2-A SD Vial Number: 3403
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.000**	ug/l	0.00	4559.5	900	6	P	
23	**Na**	1	**2719.000**	ug/l	13,595.00	1.9	450000	6	A	
24	**Mg**	1	**1368.000**	ug/l	6,840.00	2.0	450000	6	A	
27	**Al**	1	**4.302**	ug/l	21.51	4.3	450000	6	P	
31	**P**	1	**13.970**	ug/l	69.85	10.9	450000	6	P	
39	**K**	1	**749.100**	ug/l	3,745.50	0.3	450000	45	M	
44	**Ca**	1	**10060.000**	ug/l	50,300.00	0.5	450000	45	P	
47	**Ti**	1	**0.187**	ug/l	0.93	39.0	4500	45	P	
51	**V**	1	**0.530**	ug/l	2.65	4.4	4500	45	P	
52	**Cr**	1	**0.109**	ug/l	0.55	14.5	4500	45	P	
55	**Mn**	1	**232.700**	ug/l	1,163.50	1.3	4500	45	A	
57	**Fe**	1	**37.680**	ug/l	188.40	6.8	450000	74	P	
59	**Co**	1	**0.292**	ug/l	1.46	5.1	4500	45	P	
60	**Ni**	1	**0.837**	ug/l	4.19	3.2	4500	45	P	
63	**Cu**	1	**0.033**	ug/l	0.17	34.3	4500	45	P	
66	**Zn**	1	**3.343**	ug/l	16.72	4.5	4500	74	P	
75	**As**	1	**0.244**	ug/l	1.22	3.7	4500	45	P	
78	**Se**	1	**-0.222**	ug/l	-1.11	25.8	4500	45	P	
88	**Sr**	1	**104.500**	ug/l	522.50	0.3	4500	45	P	
95	**Mo**	1	**0.026**	ug/l	0.13	49.9	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	99.5	4500	103	P	
111	**Cd**	1	**-0.004**	ug/l	-0.02	198.6	4500	103	P	
118	**Sn**	1	**0.031**	ug/l	0.15	36.7	4500	103	P	
123	**Sb**	1	**0.031**	ug/l	0.16	33.6	4500	103	P	
135	**Ba**	1	**23.650**	ug/l	118.25	1.2	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.03	44.1	45	209	P	
205	**Tl**	1	**0.045**	ug/l	0.22	34.7	4500	165	P	
208	**Pb**	1	**-0.021**	ug/l	-0.10	57.3	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.01	34.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63617	1.04	81580	**78.0**	30	-	125	
45	Sc	1	1219007	0.35	1568000	**77.7**	30	-	125	
74	Ge	1	3310963	0.40	3965000	**83.5**	30	-	125	
103	Rh	1	4911611	0.52	5756000	**85.3**	30	-	125	
165	Ho	1	2725999	1.27	2702000	**100.9**	30	-	125	
175	Lu	1	2460667	1.06	2349000	**104.8**	30	-	125	
209	Bi	1	3169057	1.32	2910000	**108.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\223SMPL.D\223SMPL.D#
Date Acquired: Sep 16 2011 07:26 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-D-2-B DU Vial Number: 3404
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.009**	ug/l	-0.01	85.4	900	6	P	
23	**Na**	1	**2634.000**	ug/l	2,634.00	0.3	450000	6	A	
24	**Mg**	1	**1364.000**	ug/l	1,364.00	1.3	450000	6	A	
27	**Al**	1	**4.476**	ug/l	4.48	6.1	450000	6	P	
31	**P**	1	**15.980**	ug/l	15.98	6.6	450000	6	P	
39	**K**	1	**744.500**	ug/l	744.50	1.4	450000	45	P	
44	**Ca**	1	**9995.000**	ug/l	9,995.00	0.9	450000	45	P	
47	**Ti**	1	**0.198**	ug/l	0.20	11.7	4500	45	P	
51	**V**	1	**0.541**	ug/l	0.54	10.3	4500	45	P	
52	**Cr**	1	**0.107**	ug/l	0.11	9.6	4500	45	P	
55	**Mn**	1	**232.600**	ug/l	232.60	1.0	4500	45	A	
57	**Fe**	1	**37.590**	ug/l	37.59	2.9	450000	74	P	
59	**Co**	1	**0.283**	ug/l	0.28	5.2	4500	45	P	
60	**Ni**	1	**0.807**	ug/l	0.81	3.5	4500	45	P	
63	**Cu**	1	**0.036**	ug/l	0.04	42.3	4500	45	P	
66	**Zn**	1	**3.255**	ug/l	3.26	2.1	4500	74	P	
75	**As**	1	**0.243**	ug/l	0.24	9.4	4500	45	P	
78	**Se**	1	**-0.311**	ug/l	-0.31	8.4	4500	45	P	
88	**Sr**	1	**103.800**	ug/l	103.80	1.2	4500	45	P	
95	**Mo**	1	**0.026**	ug/l	0.03	11.4	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	119.6	4500	103	P	
111	**Cd**	1	**-0.004**	ug/l	0.00	151.3	4500	103	P	
118	**Sn**	1	**0.029**	ug/l	0.03	38.8	4500	103	P	
123	**Sb**	1	**0.033**	ug/l	0.03	28.8	4500	103	P	
135	**Ba**	1	**24.010**	ug/l	24.01	0.2	4500	103	P	
200	**Hg**	1	**-0.008**	ug/l	-0.01	33.0	45	209	P	
205	**Tl**	1	**0.032**	ug/l	0.03	40.3	4500	165	P	
208	**Pb**	1	**-0.011**	ug/l	-0.01	92.2	4500	209	P	
238	**U**	1	**0.002**	ug/l	0.00	41.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64141	1.26	81580	**78.6**	30	-	125	
45	Sc	1	1224549	1.42	1568000	**78.1**	30	-	125	
74	Ge	1	3304492	1.27	3965000	**83.3**	30	-	125	
103	Rh	1	4851530	0.70	5756000	**84.3**	30	-	125	
165	Ho	1	2754842	1.55	2702000	**102.0**	30	-	125	
175	Lu	1	2464845	0.25	2349000	**104.9**	30	-	125	
209	Bi	1	3142581	1.23	2910000	**108.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\224SMPL.D\224SMPL.D#
Date Acquired: Sep 16 2011 07:30 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-D-2-C MS Vial Number: 3405
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**102.300**	ug/l	102.30	0.7	900	6	P	
23	**Na**	1	**11750.000**	ug/l	11,750.00	1.7	450000	6	A	
24	**Mg**	1	**10730.000**	ug/l	10,730.00	0.8	450000	6	A	
27	**Al**	1	**961.700**	ug/l	961.70	1.4	450000	6	P	
31	**P**	1	**8530.000**	ug/l	8,530.00	0.7	450000	6	P	
39	**K**	1	**9645.000**	ug/l	9,645.00	1.0	450000	45	A	
44	**Ca**	1	**19000.000**	ug/l	19,000.00	2.0	450000	45	A	
47	**Ti**	1	**98.930**	ug/l	98.93	1.1	4500	45	P	
51	**V**	1	**100.700**	ug/l	100.70	0.9	4500	45	P	
52	**Cr**	1	**101.600**	ug/l	101.60	1.0	4500	45	P	
55	**Mn**	1	**315.700**	ug/l	315.70	0.5	4500	45	A	
57	**Fe**	1	**10040.000**	ug/l	10,040.00	0.2	450000	74	A	
59	**Co**	1	**100.800**	ug/l	100.80	1.4	4500	45	A	
60	**Ni**	1	**100.400**	ug/l	100.40	1.1	4500	45	P	
63	**Cu**	1	**101.200**	ug/l	101.20	0.8	4500	45	P	
66	**Zn**	1	**102.300**	ug/l	102.30	0.9	4500	74	P	
75	**As**	1	**104.700**	ug/l	104.70	1.0	4500	45	P	
78	**Se**	1	**107.200**	ug/l	107.20	1.5	4500	45	P	
88	**Sr**	1	**202.900**	ug/l	202.90	1.0	4500	45	A	
95	**Mo**	1	**102.600**	ug/l	102.60	0.5	4500	74	P	
109	**Ag**	1	**101.100**	ug/l	101.10	0.7	4500	103	A	
111	**Cd**	1	**102.700**	ug/l	102.70	0.6	4500	103	P	
118	**Sn**	1	**103.700**	ug/l	103.70	1.1	4500	103	P	
123	**Sb**	1	**103.000**	ug/l	103.00	1.0	4500	103	P	
135	**Ba**	1	**119.700**	ug/l	119.70	0.3	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	0.00	88.8	45	209	P	
205	**Tl**	1	**109.800**	ug/l	109.80	2.2	4500	165	A	
208	**Pb**	1	**99.630**	ug/l	99.63	0.9	4500	209	A	
238	**U**	1	**110.900**	ug/l	110.90	1.2	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65771	0.36	81580	**80.6**	30	-	125	
45	Sc	1	1244750	0.81	1568000	**79.4**	30	-	125	
74	Ge	1	3292289	0.57	3965000	**83.0**	30	-	125	
103	Rh	1	4770450	0.91	5756000	**82.9**	30	-	125	
165	Ho	1	2718520	0.72	2702000	**100.6**	30	-	125	
175	Lu	1	2412808	1.08	2349000	**102.7**	30	-	125	
209	Bi	1	3042272	0.68	2910000	**104.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\225SMPL.D\225SMPL.D#
Date Acquired: Sep 16 2011 07:35 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-D-2-D MSD Vial Number: 3406
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**102.200**	ug/l	102.20	1.4	900	6	P	
23	**Na**	1	**11710.000**	ug/l	11,710.00	1.3	450000	6	A	
24	**Mg**	1	**10930.000**	ug/l	10,930.00	1.1	450000	6	A	
27	**Al**	1	**971.300**	ug/l	971.30	0.5	450000	6	P	
31	**P**	1	**8537.000**	ug/l	8,537.00	1.2	450000	6	P	
39	**K**	1	**9595.000**	ug/l	9,595.00	0.6	450000	45	A	
44	**Ca**	1	**19080.000**	ug/l	19,080.00	0.7	450000	45	A	
47	**Ti**	1	**98.540**	ug/l	98.54	1.9	4500	45	P	
51	**V**	1	**100.900**	ug/l	100.90	2.4	4500	45	P	
52	**Cr**	1	**102.400**	ug/l	102.40	1.7	4500	45	P	
55	**Mn**	1	**313.600**	ug/l	313.60	1.0	4500	45	A	
57	**Fe**	1	**10060.000**	ug/l	10,060.00	0.4	450000	74	A	
59	**Co**	1	**103.100**	ug/l	103.10	0.9	4500	45	A	
60	**Ni**	1	**101.800**	ug/l	101.80	2.6	4500	45	P	
63	**Cu**	1	**103.100**	ug/l	103.10	2.1	4500	45	P	
66	**Zn**	1	**102.300**	ug/l	102.30	0.4	4500	74	P	
75	**As**	1	**105.600**	ug/l	105.60	1.8	4500	45	P	
78	**Se**	1	**106.700**	ug/l	106.70	1.9	4500	45	P	
88	**Sr**	1	**203.800**	ug/l	203.80	2.3	4500	45	A	
95	**Mo**	1	**103.000**	ug/l	103.00	1.0	4500	74	P	
109	**Ag**	1	**100.600**	ug/l	100.60	1.3	4500	103	A	
111	**Cd**	1	**103.200**	ug/l	103.20	0.1	4500	103	P	
118	**Sn**	1	**103.700**	ug/l	103.70	0.9	4500	103	P	
123	**Sb**	1	**103.400**	ug/l	103.40	0.6	4500	103	P	
135	**Ba**	1	**120.000**	ug/l	120.00	0.5	4500	103	P	
200	**Hg**	1	**-0.002**	ug/l	0.00	264.8	45	209	P	
205	**Tl**	1	**109.300**	ug/l	109.30	0.4	4500	165	A	
208	**Pb**	1	**99.690**	ug/l	99.69	1.0	4500	209	A	
238	**U**	1	**111.200**	ug/l	111.20	0.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66560	0.76	81580	**81.6**	30	-	125	
45	Sc	1	1256725	1.40	1568000	**80.1**	30	-	125	
74	Ge	1	3363324	0.75	3965000	**84.8**	30	-	125	
103	Rh	1	4820299	0.70	5756000	**83.7**	30	-	125	
165	Ho	1	2756066	0.41	2702000	**102.0**	30	-	125	
175	Lu	1	2456805	2.23	2349000	**104.6**	30	-	125	
209	Bi	1	3070613	1.34	2910000	**105.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\226SMPL.D\226SMPL.D#
Date Acquired: Sep 16 2011 07:39 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-D-2-A Vial Number: 3407
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**103.200**	ug/l	103.20	1.5	900	6	P	
23	**Na**	1	**11930.000**	ug/l	11,930.00	1.4	450000	6	A	
24	**Mg**	1	**10770.000**	ug/l	10,770.00	0.5	450000	6	A	
27	**Al**	1	**978.800**	ug/l	978.80	1.3	450000	6	P	
31	**P**	1	**8670.000**	ug/l	8,670.00	1.9	450000	6	P	
39	**K**	1	**9729.000**	ug/l	9,729.00	2.2	450000	45	A	
44	**Ca**	1	**19160.000**	ug/l	19,160.00	1.6	450000	45	A	
47	**Ti**	1	**98.520**	ug/l	98.52	1.9	4500	45	P	
51	**V**	1	**100.300**	ug/l	100.30	2.8	4500	45	P	
52	**Cr**	1	**101.900**	ug/l	101.90	3.1	4500	45	P	
55	**Mn**	1	**317.500**	ug/l	317.50	1.6	4500	45	A	
57	**Fe**	1	**10180.000**	ug/l	10,180.00	1.2	450000	74	A	
59	**Co**	1	**101.700**	ug/l	101.70	1.7	4500	45	A	
60	**Ni**	1	**100.700**	ug/l	100.70	1.8	4500	45	P	
63	**Cu**	1	**102.300**	ug/l	102.30	2.0	4500	45	P	
66	**Zn**	1	**103.000**	ug/l	103.00	1.6	4500	74	P	
75	**As**	1	**105.200**	ug/l	105.20	2.2	4500	45	P	
78	**Se**	1	**106.200**	ug/l	106.20	3.1	4500	45	P	
88	**Sr**	1	**201.100**	ug/l	201.10	3.6	4500	45	A	
95	**Mo**	1	**103.500**	ug/l	103.50	0.8	4500	74	P	
109	**Ag**	1	**99.540**	ug/l	99.54	0.2	4500	103	A	
111	**Cd**	1	**102.300**	ug/l	102.30	1.7	4500	103	P	
118	**Sn**	1	**103.200**	ug/l	103.20	1.4	4500	103	P	
123	**Sb**	1	**102.800**	ug/l	102.80	1.5	4500	103	P	
135	**Ba**	1	**119.200**	ug/l	119.20	1.9	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.01	9.1	45	209	P	
205	**Tl**	1	**108.600**	ug/l	108.60	1.5	4500	165	A	
208	**Pb**	1	**99.570**	ug/l	99.57	1.4	4500	209	A	
238	**U**	1	**111.400**	ug/l	111.40	0.9	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66729	0.66	81580	**81.8**	30	-	125	
45	Sc	1	1276100	2.54	1568000	**81.4**	30	-	125	
74	Ge	1	3362400	0.60	3965000	**84.8**	30	-	125	
103	Rh	1	4873193	1.33	5756000	**84.7**	30	-	125	
165	Ho	1	2749004	1.72	2702000	**101.7**	30	-	125	
175	Lu	1	2440439	1.47	2349000	**103.9**	30	-	125	
209	Bi	1	3079149	0.91	2910000	**105.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\227SMPL.D\227SMPL.D#
Date Acquired: Sep 16 2011 07:43 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95480/6-A Vial Number: 3408
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**105.900**	ug/l	105.90	2.4	900	6	P	
23	**Na**	1	**10030.000**	ug/l	10,030.00	0.6	450000	6	A	
24	**Mg**	1	**10120.000**	ug/l	10,120.00	0.0	450000	6	A	
27	**Al**	1	**1013.000**	ug/l	1,013.00	1.3	450000	6	P	
31	**P**	1	**9153.000**	ug/l	9,153.00	1.4	450000	6	P	
39	**K**	1	**9355.000**	ug/l	9,355.00	1.6	450000	45	A	
44	**Ca**	1	**10070.000**	ug/l	10,070.00	0.9	450000	45	P	
47	**Ti**	1	**100.300**	ug/l	100.30	1.1	4500	45	P	
51	**V**	1	**102.800**	ug/l	102.80	1.5	4500	45	P	
52	**Cr**	1	**104.700**	ug/l	104.70	1.3	4500	45	P	
55	**Mn**	1	**108.900**	ug/l	108.90	1.5	4500	45	P	
57	**Fe**	1	**10510.000**	ug/l	10,510.00	1.8	450000	74	A	
59	**Co**	1	**105.700**	ug/l	105.70	2.7	4500	45	A	
60	**Ni**	1	**104.300**	ug/l	104.30	1.9	4500	45	P	
63	**Cu**	1	**106.000**	ug/l	106.00	1.1	4500	45	P	
66	**Zn**	1	**106.800**	ug/l	106.80	1.9	4500	74	P	
75	**As**	1	**108.000**	ug/l	108.00	1.1	4500	45	P	
78	**Se**	1	**111.300**	ug/l	111.30	1.7	4500	45	P	
88	**Sr**	1	**106.300**	ug/l	106.30	1.2	4500	45	P	
95	**Mo**	1	**104.500**	ug/l	104.50	1.4	4500	74	P	
109	**Ag**	1	**104.900**	ug/l	104.90	1.7	4500	103	A	
111	**Cd**	1	**106.900**	ug/l	106.90	0.7	4500	103	P	
118	**Sn**	1	**102.400**	ug/l	102.40	1.3	4500	103	P	
123	**Sb**	1	**107.600**	ug/l	107.60	1.5	4500	103	P	
135	**Ba**	1	**100.500**	ug/l	100.50	0.7	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.01	15.7	45	209	P	
205	**Tl**	1	**111.100**	ug/l	111.10	0.3	4500	165	A	
208	**Pb**	1	**102.500**	ug/l	102.50	1.6	4500	209	A	
238	**U**	1	**113.500**	ug/l	113.50	2.1	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68537	1.48	81580	**84.0**	30	-	125	
45	Sc	1	1317059	1.68	1568000	**84.0**	30	-	125	
74	Ge	1	3448413	1.31	3965000	**87.0**	30	-	125	
103	Rh	1	4981301	1.32	5756000	**86.5**	30	-	125	
165	Ho	1	2749027	1.96	2702000	**101.7**	30	-	125	
175	Lu	1	2489205	1.30	2349000	**106.0**	30	-	125	
209	Bi	1	3131674	1.38	2910000	**107.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\228SMPL.D\228SMPL.D#
Date Acquired: Sep 16 2011 07:48 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95480/7-A Vial Number: 3409
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**104.400**	ug/l	104.40	1.2	900	6	P	
23	**Na**	1	**9815.000**	ug/l	9,815.00	0.5	450000	6	A	
24	**Mg**	1	**9939.000**	ug/l	9,939.00	0.5	450000	6	A	
27	**Al**	1	**998.700**	ug/l	998.70	0.8	450000	6	P	
31	**P**	1	**8995.000**	ug/l	8,995.00	1.0	450000	6	P	
39	**K**	1	**9384.000**	ug/l	9,384.00	3.2	450000	45	A	
44	**Ca**	1	**10120.000**	ug/l	10,120.00	3.7	450000	45	P	
47	**Ti**	1	**101.800**	ug/l	101.80	4.0	4500	45	P	
51	**V**	1	**103.700**	ug/l	103.70	4.3	4500	45	P	
52	**Cr**	1	**105.400**	ug/l	105.40	5.3	4500	45	P	
55	**Mn**	1	**108.200**	ug/l	108.20	5.2	4500	45	P	
57	**Fe**	1	**10400.000**	ug/l	10,400.00	1.7	450000	74	A	
59	**Co**	1	**106.500**	ug/l	106.50	4.2	4500	45	A	
60	**Ni**	1	**105.600**	ug/l	105.60	5.3	4500	45	P	
63	**Cu**	1	**106.500**	ug/l	106.50	4.9	4500	45	P	
66	**Zn**	1	**107.500**	ug/l	107.50	0.5	4500	74	P	
75	**As**	1	**108.500**	ug/l	108.50	5.6	4500	45	P	
78	**Se**	1	**111.600**	ug/l	111.60	4.2	4500	45	P	
88	**Sr**	1	**106.900**	ug/l	106.90	4.4	4500	45	P	
95	**Mo**	1	**104.700**	ug/l	104.70	0.8	4500	74	P	
109	**Ag**	1	**103.700**	ug/l	103.70	2.2	4500	103	A	
111	**Cd**	1	**104.800**	ug/l	104.80	1.5	4500	103	P	
118	**Sn**	1	**101.900**	ug/l	101.90	1.1	4500	103	P	
123	**Sb**	1	**106.000**	ug/l	106.00	0.9	4500	103	P	
135	**Ba**	1	**99.330**	ug/l	99.33	1.1	4500	103	P	
200	**Hg**	1	**-0.005**	ug/l	0.00	39.7	45	209	P	
205	**Tl**	1	**108.700**	ug/l	108.70	0.5	4500	165	A	
208	**Pb**	1	**102.700**	ug/l	102.70	2.2	4500	209	A	
238	**U**	1	**112.500**	ug/l	112.50	3.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71740	1.71	81580	**87.9**	30	-	125	
45	Sc	1	1342071	4.65	1568000	**85.6**	30	-	125	
74	Ge	1	3518681	0.67	3965000	**88.7**	30	-	125	
103	Rh	1	5094991	1.43	5756000	**88.5**	30	-	125	
165	Ho	1	2819892	0.71	2702000	**104.4**	30	-	125	
175	Lu	1	2494887	1.19	2349000	**106.2**	30	-	125	
209	Bi	1	3143267	2.56	2910000	**108.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\229SMPL.D\229SMPL.D#
Date Acquired: Sep 16 2011 07:52 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.250**	ug/l	46.25	1.9	900	6	P	
23	**Na**	1	**4440.000**	ug/l	4,440.00	1.5	450000	6	A	
24	**Mg**	1	**4522.000**	ug/l	4,522.00	1.4	450000	6	A	
27	**Al**	1	**453.400**	ug/l	453.40	1.5	450000	6	P	
31	**P**	1	**3992.000**	ug/l	3,992.00	1.4	450000	6	P	
39	**K**	1	**4301.000**	ug/l	4,301.00	3.0	450000	45	A	
44	**Ca**	1	**4553.000**	ug/l	4,553.00	1.6	450000	45	P	
47	**Ti**	1	**45.740**	ug/l	45.74	2.1	4500	45	P	
51	**V**	1	**46.390**	ug/l	46.39	1.5	4500	45	P	
52	**Cr**	1	**47.490**	ug/l	47.49	1.8	4500	45	P	
55	**Mn**	1	**48.610**	ug/l	48.61	1.1	4500	45	P	
57	**Fe**	1	**4536.000**	ug/l	4,536.00	1.9	450000	74	P	
59	**Co**	1	**46.480**	ug/l	46.48	2.5	4500	45	P	
60	**Ni**	1	**47.320**	ug/l	47.32	2.1	4500	45	P	
63	**Cu**	1	**48.430**	ug/l	48.43	2.5	4500	45	P	
66	**Zn**	1	**47.170**	ug/l	47.17	2.4	4500	74	P	
75	**As**	1	**47.470**	ug/l	47.47	1.7	4500	45	P	
78	**Se**	1	**48.450**	ug/l	48.45	3.0	4500	45	P	
88	**Sr**	1	**48.480**	ug/l	48.48	1.9	4500	45	P	
95	**Mo**	1	**46.880**	ug/l	46.88	1.4	4500	74	P	
109	**Ag**	1	**45.770**	ug/l	45.77	3.8	4500	103	P	
111	**Cd**	1	**47.600**	ug/l	47.60	2.6	4500	103	P	
118	**Sn**	1	**47.330**	ug/l	47.33	2.4	4500	103	P	
123	**Sb**	1	**47.950**	ug/l	47.95	2.9	4500	103	P	
135	**Ba**	1	**45.300**	ug/l	45.30	2.3	4500	103	P	
200	**Hg**	1	**2.278**	ug/l	2.28	2.5	45	209	P	
205	**Tl**	1	**48.780**	ug/l	48.78	5.0	4500	165	A	
208	**Pb**	1	**45.340**	ug/l	45.34	2.2	4500	209	P	
238	**U**	1	**51.180**	ug/l	51.18	2.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	72983	1.44	81580	**89.5**	30	-	125	
45	Sc	1	1371929	1.46	1568000	**87.5**	30	-	125	
74	Ge	1	3606812	1.42	3965000	**91.0**	30	-	125	
103	Rh	1	5157603	2.90	5756000	**89.6**	30	-	125	
165	Ho	1	2846762	2.91	2702000	**105.4**	30	-	125	
175	Lu	1	2503164	2.38	2349000	**106.6**	30	-	125	
209	Bi	1	3235898	2.24	2910000	**111.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\230SMPL.D\230SMPL.D#
Date Acquired: Sep 16 2011 07:56 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.012**	ug/l	0.01	100.6	900	6	P	
23	**Na**	1	**22.730**	ug/l	22.73	10.7	450000	6	P	
24	**Mg**	1	**1.604**	ug/l	1.60	9.3	450000	6	P	
27	**Al**	1	**0.127**	ug/l	0.13	9.2	450000	6	P	
31	**P**	1	**-2.849**	ug/l	-2.85	38.9	450000	6	P	
39	**K**	1	**-32.280**	ug/l	-32.28	2.3	450000	45	P	
44	**Ca**	1	**0.732**	ug/l	0.73	75.5	450000	45	P	
47	**Ti**	1	**0.032**	ug/l	0.03	69.3	4500	45	P	
51	**V**	1	**-0.357**	ug/l	-0.36	6.5	4500	45	P	
52	**Cr**	1	**0.019**	ug/l	0.02	39.3	4500	45	P	
55	**Mn**	1	**0.054**	ug/l	0.05	24.4	4500	45	P	
57	**Fe**	1	**3.271**	ug/l	3.27	16.6	450000	74	P	
59	**Co**	1	**0.024**	ug/l	0.02	14.7	4500	45	P	
60	**Ni**	1	**0.022**	ug/l	0.02	54.0	4500	45	P	
63	**Cu**	1	**0.058**	ug/l	0.06	33.7	4500	45	P	
66	**Zn**	1	**0.020**	ug/l	0.02	128.0	4500	74	P	
75	**As**	1	**-0.023**	ug/l	-0.02	89.2	4500	45	P	
78	**Se**	1	**-0.258**	ug/l	-0.26	5.7	4500	45	P	
88	**Sr**	1	**0.026**	ug/l	0.03	21.5	4500	45	P	
95	**Mo**	1	**0.155**	ug/l	0.15	22.7	4500	74	P	
109	**Ag**	1	**0.018**	ug/l	0.02	10.3	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.00	231.1	4500	103	P	
118	**Sn**	1	**0.336**	ug/l	0.34	13.9	4500	103	P	
123	**Sb**	1	**0.122**	ug/l	0.12	27.1	4500	103	P	
135	**Ba**	1	**0.021**	ug/l	0.02	62.5	4500	103	P	
200	**Hg**	1	**-0.002**	ug/l	0.00	135.7	45	209	P	
205	**Tl**	1	**0.496**	ug/l	0.50	7.4	4500	165	P	
208	**Pb**	1	**0.034**	ug/l	0.03	18.3	4500	209	P	
238	**U**	1	**0.039**	ug/l	0.04	3.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	71025	1.87	81580	**87.1**	30	-	125	
45	Sc	1	1318111	1.42	1568000	**84.1**	30	-	125	
74	Ge	1	3510703	1.13	3965000	**88.5**	30	-	125	
103	Rh	1	5204905	0.91	5756000	**90.4**	30	-	125	
165	Ho	1	2811709	1.73	2702000	**104.1**	30	-	125	
175	Lu	1	2506345	1.14	2349000	**106.7**	30	-	125	
209	Bi	1	3248505	0.85	2910000	**111.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\231SMPL.D\231SMPL.D#
Date Acquired: Sep 16 2011 08:01 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95472/14-A Vial Number: 4101
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.012**	ug/l	-0.01	46.6	900	6	P	
23	**Na**	1	**26.060**	ug/l	26.06	10.2	450000	6	P	
24	**Mg**	1	**0.216**	ug/l	0.22	42.3	450000	6	P	
27	**Al**	1	**0.356**	ug/l	0.36	16.8	450000	6	P	
31	**P**	1	**-3.936**	ug/l	-3.94	55.3	450000	6	P	
39	**K**	1	**-32.830**	ug/l	-32.83	8.1	450000	45	P	
44	**Ca**	1	**-1.485**	ug/l	-1.49	16.6	450000	45	P	
47	**Ti**	1	**0.001**	ug/l	0.00	1457.9	4500	45	P	
51	**V**	1	**-0.339**	ug/l	-0.34	2.6	4500	45	P	
52	**Cr**	1	**-0.009**	ug/l	-0.01	65.2	4500	45	P	
55	**Mn**	1	**0.035**	ug/l	0.04	5.7	4500	45	P	
57	**Fe**	1	**0.453**	ug/l	0.45	84.1	450000	74	P	
59	**Co**	1	**0.009**	ug/l	0.01	20.7	4500	45	P	
60	**Ni**	1	**0.032**	ug/l	0.03	31.9	4500	45	P	
63	**Cu**	1	**0.045**	ug/l	0.04	82.5	4500	45	P	
66	**Zn**	1	**0.059**	ug/l	0.06	29.6	4500	74	P	
75	**As**	1	**-0.040**	ug/l	-0.04	68.1	4500	45	P	
78	**Se**	1	**-0.229**	ug/l	-0.23	18.9	4500	45	P	
88	**Sr**	1	**0.010**	ug/l	0.01	32.5	4500	45	P	
95	**Mo**	1	**0.070**	ug/l	0.07	45.4	4500	74	P	
109	**Ag**	1	**0.003**	ug/l	0.00	103.2	4500	103	P	
111	**Cd**	1	**0.003**	ug/l	0.00	269.7	4500	103	P	
118	**Sn**	1	**0.163**	ug/l	0.16	29.0	4500	103	P	
123	**Sb**	1	**0.063**	ug/l	0.06	34.5	4500	103	P	
135	**Ba**	1	**0.022**	ug/l	0.02	77.6	4500	103	P	
200	**Hg**	1	**-0.005**	ug/l	-0.01	36.7	45	209	P	
205	**Tl**	1	**0.212**	ug/l	0.21	18.1	4500	165	P	
208	**Pb**	1	**0.036**	ug/l	0.04	23.9	4500	209	P	
238	**U**	1	**0.012**	ug/l	0.01	13.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68616	1.11	81580	**84.1**	30	-	125	
45	Sc	1	1282798	2.77	1568000	**81.8**	30	-	125	
74	Ge	1	3396236	0.86	3965000	**85.7**	30	-	125	
103	Rh	1	5124111	1.18	5756000	**89.0**	30	-	125	
165	Ho	1	2818874	0.18	2702000	**104.3**	30	-	125	
175	Lu	1	2510190	2.00	2349000	**106.9**	30	-	125	
209	Bi	1	3238170	2.52	2910000	**111.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\232SMPL.D\232SMPL.D#
Date Acquired: Sep 16 2011 08:05 am Acq. Method: 00He_ALL.M
Sample Name: 580-28619-D-1-A SD Vial Number: 4102
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.011**	ug/l	-0.06	69.3	900	6	P	
23	**Na**	1	**17700.000**	ug/l	88,500.00	0.9	450000	6	A	
24	**Mg**	1	**90.240**	ug/l	451.20	0.4	450000	6	P	
27	**Al**	1	**4.686**	ug/l	23.43	2.6	450000	6	P	
31	**P**	1	**212.300**	ug/l	1,061.50	2.3	450000	6	P	
39	**K**	1	**3172.000**	ug/l	15,860.00	1.3	450000	45	A	
44	**Ca**	1	**22560.000**	ug/l	112,800.00	1.7	450000	45	A	
47	**Ti**	1	**0.108**	ug/l	0.54	6.9	4500	45	P	
51	**V**	1	**0.433**	ug/l	2.16	3.8	4500	45	P	
52	**Cr**	1	**1.131**	ug/l	5.66	1.6	4500	45	P	
55	**Mn**	1	**0.442**	ug/l	2.21	3.6	4500	45	P	
57	**Fe**	1	**142.600**	ug/l	713.00	1.0	450000	74	P	
59	**Co**	1	**0.535**	ug/l	2.67	0.9	4500	45	P	
60	**Ni**	1	**2.534**	ug/l	12.67	3.8	4500	45	P	
63	**Cu**	1	**0.890**	ug/l	4.45	7.1	4500	45	P	
66	**Zn**	1	**2.286**	ug/l	11.43	3.4	4500	74	P	
75	**As**	1	**1.591**	ug/l	7.96	3.6	4500	45	P	
78	**Se**	1	**-0.194**	ug/l	-0.97	29.8	4500	45	P	
88	**Sr**	1	**56.620**	ug/l	283.10	1.4	4500	45	P	
95	**Mo**	1	**9.479**	ug/l	47.40	0.5	4500	74	P	
109	**Ag**	1	**0.009**	ug/l	0.04	39.0	4500	103	P	
111	**Cd**	1	**0.035**	ug/l	0.17	19.0	4500	103	P	
118	**Sn**	1	**12.820**	ug/l	64.10	1.0	4500	103	P	
123	**Sb**	1	**0.459**	ug/l	2.30	4.2	4500	103	P	
135	**Ba**	1	**0.431**	ug/l	2.16	5.3	4500	103	P	
200	**Hg**	1	**0.263**	ug/l	1.31	3.9	45	209	P	
205	**Tl**	1	**0.137**	ug/l	0.68	21.9	4500	165	P	
208	**Pb**	1	**0.271**	ug/l	1.36	2.7	4500	209	P	
238	**U**	1	**0.008**	ug/l	0.04	15.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	65909	0.73	81580	**80.8**	30	-	125	
45	Sc	1	1276716	1.12	1568000	**81.4**	30	-	125	
74	Ge	1	3413650	0.18	3965000	**86.1**	30	-	125	
103	Rh	1	4865345	0.53	5756000	**84.5**	30	-	125	
165	Ho	1	2756349	0.25	2702000	**102.0**	30	-	125	
175	Lu	1	2463544	1.04	2349000	**104.9**	30	-	125	
209	Bi	1	3100531	0.84	2910000	**106.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\233SMPL.D\233SMPL.D#
Date Acquired: Sep 16 2011 08:10 am Acq. Method: 00He_ALL.M
Sample Name: 580-28619-D-1-A Vial Number: 4103
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.016**	ug/l	0.02	67.0	900	6	P	
23	**Na**	1	**90210.000**	ug/l	90,210.00	1.5	450000	6	A	
24	**Mg**	1	**461.200**	ug/l	461.20	0.3	450000	6	P	
27	**Al**	1	**24.960**	ug/l	24.96	2.0	450000	6	P	
31	**P**	1	**1123.000**	ug/l	1,123.00	1.3	450000	6	P	
39	**K**	1	**15550.000**	ug/l	15,550.00	1.5	450000	45	A	
44	**Ca**	1	**110200.000**	ug/l	110,200.00	1.8	450000	45	A	
47	**Ti**	1	**0.607**	ug/l	0.61	5.6	4500	45	P	
51	**V**	1	**3.820**	ug/l	3.82	4.5	4500	45	P	
52	**Cr**	1	**5.639**	ug/l	5.64	2.3	4500	45	P	
55	**Mn**	1	**2.089**	ug/l	2.09	3.4	4500	45	P	
57	**Fe**	1	**717.600**	ug/l	717.60	3.0	450000	74	P	
59	**Co**	1	**2.594**	ug/l	2.59	2.5	4500	45	P	
60	**Ni**	1	**12.290**	ug/l	12.29	3.4	4500	45	P	
63	**Cu**	1	**4.959**	ug/l	4.96	3.1	4500	45	P	
66	**Zn**	1	**11.460**	ug/l	11.46	0.2	4500	74	P	
75	**As**	1	**8.855**	ug/l	8.86	1.2	4500	45	P	
78	**Se**	1	**0.081**	ug/l	0.08	72.2	4500	45	P	
88	**Sr**	1	**283.700**	ug/l	283.70	1.6	4500	45	A	
95	**Mo**	1	**49.200**	ug/l	49.20	1.6	4500	74	P	
109	**Ag**	1	**0.060**	ug/l	0.06	8.2	4500	103	P	
111	**Cd**	1	**0.104**	ug/l	0.10	39.6	4500	103	P	
118	**Sn**	1	**66.260**	ug/l	66.26	1.7	4500	103	P	
123	**Sb**	1	**2.212**	ug/l	2.21	1.6	4500	103	P	
135	**Ba**	1	**2.277**	ug/l	2.28	2.2	4500	103	P	
200	**Hg**	1	**1.423**	ug/l	1.42	4.0	45	209	P	
205	**Tl**	1	**0.075**	ug/l	0.07	23.3	4500	165	P	
208	**Pb**	1	**1.431**	ug/l	1.43	2.4	4500	209	P	
238	**U**	1	**0.017**	ug/l	0.02	8.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61996	0.92	81580	**76.0**	30	-	125	
45	Sc	1	1225231	1.85	1568000	**78.1**	30	-	125	
74	Ge	1	3206301	1.60	3965000	**80.9**	30	-	125	
103	Rh	1	4552096	0.85	5756000	**79.1**	30	-	125	
165	Ho	1	2624812	0.32	2702000	**97.1**	30	-	125	
175	Lu	1	2365162	1.27	2349000	**100.7**	30	-	125	
209	Bi	1	2823261	1.12	2910000	**97.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\234SMPL.D\234SMPL.D#
Date Acquired: Sep 16 2011 08:14 am Acq. Method: 00He_ALL.M
Sample Name: 580-28619-D-1-B DU Vial Number: 4104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.020**	ug/l	0.02	112.1	900	6	P	
23	**Na**	1	**92180.000**	ug/l	92,180.00	12.3	450000	6	A	
24	**Mg**	1	**469.400**	ug/l	469.40	11.5	450000	6	P	
27	**Al**	1	**25.350**	ug/l	25.35	9.1	450000	6	P	
31	**P**	1	**1118.000**	ug/l	1,118.00	9.3	450000	6	P	
39	**K**	1	**16170.000**	ug/l	16,170.00	12.0	450000	45	A	
44	**Ca**	1	**114000.000**	ug/l	114,000.00	10.5	450000	45	A	
47	**Ti**	1	**0.662**	ug/l	0.66	15.6	4500	45	P	
51	**V**	1	**4.012**	ug/l	4.01	17.2	4500	45	P	
52	**Cr**	1	**5.839**	ug/l	5.84	11.9	4500	45	P	
55	**Mn**	1	**2.150**	ug/l	2.15	9.9	4500	45	P	
57	**Fe**	1	**737.500**	ug/l	737.50	9.3	450000	74	P	
59	**Co**	1	**2.626**	ug/l	2.63	13.9	4500	45	P	
60	**Ni**	1	**12.630**	ug/l	12.63	11.5	4500	45	P	
63	**Cu**	1	**5.124**	ug/l	5.12	11.1	4500	45	P	
66	**Zn**	1	**11.720**	ug/l	11.72	11.0	4500	74	P	
75	**As**	1	**9.209**	ug/l	9.21	9.9	4500	45	P	
78	**Se**	1	**0.061**	ug/l	0.06	119.8	4500	45	P	
88	**Sr**	1	**295.800**	ug/l	295.80	12.2	4500	45	A	
95	**Mo**	1	**49.950**	ug/l	49.95	8.2	4500	74	P	
109	**Ag**	1	**0.057**	ug/l	0.06	10.2	4500	103	P	
111	**Cd**	1	**0.114**	ug/l	0.11	30.3	4500	103	P	
118	**Sn**	1	**69.710**	ug/l	69.71	12.8	4500	103	P	
123	**Sb**	1	**2.239**	ug/l	2.24	11.6	4500	103	P	
135	**Ba**	1	**2.361**	ug/l	2.36	19.4	4500	103	P	
200	**Hg**	1	**1.518**	ug/l	1.52	10.5	45	209	P	
205	**Tl**	1	**0.067**	ug/l	0.07	39.1	4500	165	P	
208	**Pb**	1	**1.470**	ug/l	1.47	11.2	4500	209	P	
238	**U**	1	**0.013**	ug/l	0.01	7.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59514	8.67	81580	**73.0**	30	-	125	
45	Sc	1	1154464	9.95	1568000	**73.6**	30	-	125	
74	Ge	1	3048850	7.97	3965000	**76.9**	30	-	125	
103	Rh	1	4296357	11.39	5756000	**74.6**	30	-	125	
165	Ho	1	2530510	13.33	2702000	**93.7**	30	-	125	
175	Lu	1	2250660	12.73	2349000	**95.8**	30	-	125	
209	Bi	1	2696060	9.82	2910000	**92.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\235SMPL.D\235SMPL.D#
Date Acquired: Sep 16 2011 08:18 am Acq. Method: 00He_ALL.M
Sample Name: 580-28619-D-1-C MS Vial Number: 4105
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**104.000**	ug/l	104.00	1.0	900	6	P	
23	**Na**	1	**100800.000**	ug/l	100,800.00	2.2	450000	6	A	
24	**Mg**	1	**10100.000**	ug/l	10,100.00	0.5	450000	6	A	
27	**Al**	1	**994.000**	ug/l	994.00	0.9	450000	6	P	
31	**P**	1	**10110.000**	ug/l	10,110.00	1.6	450000	6	P	
39	**K**	1	**24710.000**	ug/l	24,710.00	0.7	450000	45	A	
44	**Ca**	1	**120400.000**	ug/l	120,400.00	2.1	450000	45	A	
47	**Ti**	1	**98.860**	ug/l	98.86	1.9	4500	45	P	
51	**V**	1	**102.200**	ug/l	102.20	1.8	4500	45	P	
52	**Cr**	1	**105.700**	ug/l	105.70	1.9	4500	45	P	
55	**Mn**	1	**104.200**	ug/l	104.20	1.5	4500	45	P	
57	**Fe**	1	**10720.000**	ug/l	10,720.00	1.4	450000	74	A	
59	**Co**	1	**101.500**	ug/l	101.50	2.2	4500	45	M	
60	**Ni**	1	**110.200**	ug/l	110.20	2.0	4500	45	P	
63	**Cu**	1	**102.900**	ug/l	102.90	2.3	4500	45	P	
66	**Zn**	1	**110.700**	ug/l	110.70	0.8	4500	74	P	
75	**As**	1	**117.900**	ug/l	117.90	1.0	4500	45	P	
78	**Se**	1	**115.200**	ug/l	115.20	0.9	4500	45	P	
88	**Sr**	1	**388.800**	ug/l	388.80	1.5	4500	45	A	
95	**Mo**	1	**151.900**	ug/l	151.90	0.6	4500	74	P	
109	**Ag**	1	**94.780**	ug/l	94.78	1.6	4500	103	P	
111	**Cd**	1	**102.300**	ug/l	102.30	1.9	4500	103	P	
118	**Sn**	1	**171.300**	ug/l	171.30	1.8	4500	103	P	
123	**Sb**	1	**107.900**	ug/l	107.90	1.7	4500	103	P	
135	**Ba**	1	**100.800**	ug/l	100.80	1.7	4500	103	P	
200	**Hg**	1	**1.421**	ug/l	1.42	1.7	45	209	P	
205	**Tl**	1	**107.900**	ug/l	107.90	0.0	4500	165	A	
208	**Pb**	1	**101.900**	ug/l	101.90	1.2	4500	209	A	
238	**U**	1	**113.500**	ug/l	113.50	0.7	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61032	0.77	81580	**74.8**	30	-	125	
45	Sc	1	1187935	1.68	1568000	**75.8**	30	-	125	
74	Ge	1	3088720	1.00	3965000	**77.9**	30	-	125	
103	Rh	1	4405956	1.24	5756000	**76.5**	30	-	125	
165	Ho	1	2557044	0.28	2702000	**94.6**	30	-	125	
175	Lu	1	2316295	0.81	2349000	**98.6**	30	-	125	
209	Bi	1	2783380	1.33	2910000	**95.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\236SMPL.D\236SMPL.D#
Date Acquired: Sep 16 2011 08:23 am Acq. Method: 00He_ALL.M
Sample Name: 580-28619-D-1-D MSD Vial Number: 4106
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**104.400**	ug/l	104.40	1.5	900	6	P	
23	**Na**	1	**100600.000**	ug/l	100,600.00	1.8	450000	6	A	
24	**Mg**	1	**9943.000**	ug/l	9,943.00	1.7	450000	6	A	
27	**Al**	1	**979.300**	ug/l	979.30	1.3	450000	6	P	
31	**P**	1	**10010.000**	ug/l	10,010.00	1.7	450000	6	P	
39	**K**	1	**23960.000**	ug/l	23,960.00	1.8	450000	45	A	
44	**Ca**	1	**115900.000**	ug/l	115,900.00	2.5	450000	45	A	
47	**Ti**	1	**96.270**	ug/l	96.27	1.8	4500	45	P	
51	**V**	1	**99.610**	ug/l	99.61	2.2	4500	45	P	
52	**Cr**	1	**103.000**	ug/l	103.00	1.9	4500	45	P	
55	**Mn**	1	**101.300**	ug/l	101.30	1.4	4500	45	P	
57	**Fe**	1	**10600.000**	ug/l	10,600.00	0.4	450000	74	A	
59	**Co**	1	**95.690**	ug/l	95.69	2.6	4500	45	P	
60	**Ni**	1	**107.100**	ug/l	107.10	1.4	4500	45	P	
63	**Cu**	1	**100.100**	ug/l	100.10	2.5	4500	45	P	
66	**Zn**	1	**108.700**	ug/l	108.70	0.5	4500	74	P	
75	**As**	1	**113.500**	ug/l	113.50	2.1	4500	45	P	
78	**Se**	1	**111.800**	ug/l	111.80	2.4	4500	45	P	
88	**Sr**	1	**379.000**	ug/l	379.00	2.0	4500	45	A	
95	**Mo**	1	**149.300**	ug/l	149.30	0.9	4500	74	P	
109	**Ag**	1	**93.430**	ug/l	93.43	1.3	4500	103	P	
111	**Cd**	1	**100.800**	ug/l	100.80	1.8	4500	103	P	
118	**Sn**	1	**169.300**	ug/l	169.30	2.5	4500	103	P	
123	**Sb**	1	**106.300**	ug/l	106.30	1.7	4500	103	P	
135	**Ba**	1	**98.120**	ug/l	98.12	1.6	4500	103	P	
200	**Hg**	1	**1.473**	ug/l	1.47	0.9	45	209	P	
205	**Tl**	1	**105.400**	ug/l	105.40	1.1	4500	165	A	
208	**Pb**	1	**101.100**	ug/l	101.10	0.8	4500	209	A	
238	**U**	1	**113.800**	ug/l	113.80	1.1	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60975	1.55	81580	**74.7**	30	-	125	
45	Sc	1	1207034	2.08	1568000	**77.0**	30	-	125	
74	Ge	1	3100184	0.81	3965000	**78.2**	30	-	125	
103	Rh	1	4396595	1.19	5756000	**76.4**	30	-	125	
165	Ho	1	2573219	1.76	2702000	**95.2**	30	-	125	
175	Lu	1	2272302	0.51	2349000	**96.7**	30	-	125	
209	Bi	1	2763119	0.65	2910000	**95.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\237SMPL.D\237SMPL.D#
Date Acquired: Sep 16 2011 08:27 am Acq. Method: 00He_ALL.M
Sample Name: 580-28619-D-1-A PDS Vial Number: 4107
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**103.600**	ug/l	103.60	0.4	900	6	P	
23	**Na**	1	**100600.000**	ug/l	100,600.00	0.8	450000	6	A	
24	**Mg**	1	**9897.000**	ug/l	9,897.00	1.2	450000	6	A	
27	**Al**	1	**979.600**	ug/l	979.60	0.9	450000	6	P	
31	**P**	1	**9881.000**	ug/l	9,881.00	0.9	450000	6	P	
39	**K**	1	**24320.000**	ug/l	24,320.00	4.4	450000	45	A	
44	**Ca**	1	**118300.000**	ug/l	118,300.00	1.7	450000	45	A	
47	**Ti**	1	**96.910**	ug/l	96.91	3.8	4500	45	P	
51	**V**	1	**100.900**	ug/l	100.90	4.4	4500	45	P	
52	**Cr**	1	**103.800**	ug/l	103.80	3.7	4500	45	P	
55	**Mn**	1	**102.200**	ug/l	102.20	4.2	4500	45	P	
57	**Fe**	1	**10760.000**	ug/l	10,760.00	1.6	450000	74	A	
59	**Co**	1	**98.130**	ug/l	98.13	2.8	4500	45	M	
60	**Ni**	1	**108.200**	ug/l	108.20	4.5	4500	45	P	
63	**Cu**	1	**101.100**	ug/l	101.10	4.1	4500	45	P	
66	**Zn**	1	**109.900**	ug/l	109.90	2.0	4500	74	P	
75	**As**	1	**114.600**	ug/l	114.60	4.2	4500	45	P	
78	**Se**	1	**112.900**	ug/l	112.90	4.3	4500	45	P	
88	**Sr**	1	**384.200**	ug/l	384.20	3.3	4500	45	A	
95	**Mo**	1	**150.500**	ug/l	150.50	2.0	4500	74	P	
109	**Ag**	1	**94.450**	ug/l	94.45	2.0	4500	103	P	
111	**Cd**	1	**101.300**	ug/l	101.30	1.9	4500	103	P	
118	**Sn**	1	**169.800**	ug/l	169.80	2.3	4500	103	P	
123	**Sb**	1	**107.200**	ug/l	107.20	2.0	4500	103	P	
135	**Ba**	1	**100.600**	ug/l	100.60	2.5	4500	103	P	
200	**Hg**	1	**1.430**	ug/l	1.43	2.1	45	209	P	
205	**Tl**	1	**106.000**	ug/l	106.00	3.0	4500	165	A	
208	**Pb**	1	**101.200**	ug/l	101.20	2.1	4500	209	A	
238	**U**	1	**114.200**	ug/l	114.20	1.2	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61704	0.85	81580	**75.6**	30	-	125	
45	Sc	1	1204910	3.97	1568000	**76.8**	30	-	125	
74	Ge	1	3101054	1.79	3965000	**78.2**	30	-	125	
103	Rh	1	4405729	1.52	5756000	**76.5**	30	-	125	
165	Ho	1	2574234	3.09	2702000	**95.3**	30	-	125	
175	Lu	1	2302054	2.51	2349000	**98.0**	30	-	125	
209	Bi	1	2780023	1.36	2910000	**95.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\238SMPL.D\238SMPL.D#
Date Acquired: Sep 16 2011 08:31 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95472/15-A Vial Number: 4108
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**99.130**	ug/l	99.13	1.3	900	6	P	
23	**Na**	1	**9408.000**	ug/l	9,408.00	1.5	450000	6	A	
24	**Mg**	1	**9159.000**	ug/l	9,159.00	1.6	450000	6	A	
27	**Al**	1	**914.700**	ug/l	914.70	2.7	450000	6	P	
31	**P**	1	**7944.000**	ug/l	7,944.00	2.6	450000	6	P	
39	**K**	1	**8856.000**	ug/l	8,856.00	4.0	450000	45	A	
44	**Ca**	1	**9559.000**	ug/l	9,559.00	2.7	450000	45	P	
47	**Ti**	1	**95.180**	ug/l	95.18	3.0	4500	45	P	
51	**V**	1	**97.480**	ug/l	97.48	3.1	4500	45	P	
52	**Cr**	1	**100.100**	ug/l	100.10	3.0	4500	45	P	
55	**Mn**	1	**102.900**	ug/l	102.90	2.5	4500	45	P	
57	**Fe**	1	**9819.000**	ug/l	9,819.00	1.9	450000	74	A	
59	**Co**	1	**97.460**	ug/l	97.46	3.1	4500	45	M	
60	**Ni**	1	**98.670**	ug/l	98.67	3.7	4500	45	P	
63	**Cu**	1	**100.600**	ug/l	100.60	2.7	4500	45	P	
66	**Zn**	1	**98.390**	ug/l	98.39	2.1	4500	74	P	
75	**As**	1	**102.300**	ug/l	102.30	2.6	4500	45	P	
78	**Se**	1	**104.200**	ug/l	104.20	2.9	4500	45	P	
88	**Sr**	1	**102.800**	ug/l	102.80	2.7	4500	45	P	
95	**Mo**	1	**100.700**	ug/l	100.70	0.6	4500	74	P	
109	**Ag**	1	**98.020**	ug/l	98.02	3.0	4500	103	M	
111	**Cd**	1	**100.500**	ug/l	100.50	1.0	4500	103	P	
118	**Sn**	1	**100.900**	ug/l	100.90	0.4	4500	103	P	
123	**Sb**	1	**101.900**	ug/l	101.90	0.7	4500	103	P	
135	**Ba**	1	**95.420**	ug/l	95.42	0.3	4500	103	P	
200	**Hg**	1	**-0.001**	ug/l	0.00	206.8	45	209	P	
205	**Tl**	1	**98.640**	ug/l	98.64	1.3	4500	165	A	
208	**Pb**	1	**97.250**	ug/l	97.25	0.9	4500	209	A	
238	**U**	1	**109.500**	ug/l	109.50	0.3	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64477	2.45	81580	**79.0**	30	-	125	
45	Sc	1	1186646	2.88	1568000	**75.7**	30	-	125	
74	Ge	1	3181197	1.21	3965000	**80.2**	30	-	125	
103	Rh	1	4637578	0.54	5756000	**80.6**	30	-	125	
165	Ho	1	2673580	0.66	2702000	**98.9**	30	-	125	
175	Lu	1	2385861	0.80	2349000	**101.6**	30	-	125	
209	Bi	1	3020379	0.65	2910000	**103.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\239SMPL.D\239SMPL.D#
Date Acquired: Sep 16 2011 08:36 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95472/16-A Vial Number: 4109
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**100.100**	ug/l	100.10	1.8	900	6	P	
23	**Na**	1	**9215.000**	ug/l	9,215.00	1.6	450000	6	A	
24	**Mg**	1	**9237.000**	ug/l	9,237.00	0.3	450000	6	A	
27	**Al**	1	**922.000**	ug/l	922.00	1.4	450000	6	P	
31	**P**	1	**8040.000**	ug/l	8,040.00	1.3	450000	6	P	
39	**K**	1	**8757.000**	ug/l	8,757.00	1.8	450000	45	A	
44	**Ca**	1	**9461.000**	ug/l	9,461.00	1.9	450000	45	P	
47	**Ti**	1	**95.280**	ug/l	95.28	1.4	4500	45	P	
51	**V**	1	**96.960**	ug/l	96.96	1.9	4500	45	P	
52	**Cr**	1	**98.900**	ug/l	98.90	1.7	4500	45	P	
55	**Mn**	1	**102.400**	ug/l	102.40	1.3	4500	45	P	
57	**Fe**	1	**9907.000**	ug/l	9,907.00	0.8	450000	74	A	
59	**Co**	1	**96.220**	ug/l	96.22	2.3	4500	45	P	
60	**Ni**	1	**98.100**	ug/l	98.10	3.1	4500	45	P	
63	**Cu**	1	**100.400**	ug/l	100.40	2.5	4500	45	P	
66	**Zn**	1	**98.670**	ug/l	98.67	0.7	4500	74	P	
75	**As**	1	**101.900**	ug/l	101.90	2.5	4500	45	P	
78	**Se**	1	**104.300**	ug/l	104.30	2.4	4500	45	P	
88	**Sr**	1	**102.700**	ug/l	102.70	2.3	4500	45	P	
95	**Mo**	1	**101.100**	ug/l	101.10	1.3	4500	74	P	
109	**Ag**	1	**95.540**	ug/l	95.54	1.3	4500	103	M	
111	**Cd**	1	**101.200**	ug/l	101.20	1.4	4500	103	P	
118	**Sn**	1	**100.100**	ug/l	100.10	0.9	4500	103	P	
123	**Sb**	1	**101.600**	ug/l	101.60	0.6	4500	103	P	
135	**Ba**	1	**95.810**	ug/l	95.81	0.8	4500	103	P	
200	**Hg**	1	**-0.006**	ug/l	-0.01	32.9	45	209	P	
205	**Tl**	1	**99.910**	ug/l	99.91	1.6	4500	165	A	
208	**Pb**	1	**97.380**	ug/l	97.38	0.7	4500	209	A	
238	**U**	1	**108.800**	ug/l	108.80	0.8	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63461	1.68	81580	**77.8**	30	-	125	
45	Sc	1	1186314	1.85	1568000	**75.7**	30	-	125	
74	Ge	1	3160062	0.80	3965000	**79.7**	30	-	125	
103	Rh	1	4641834	0.59	5756000	**80.6**	30	-	125	
165	Ho	1	2691006	1.91	2702000	**99.6**	30	-	125	
175	Lu	1	2394060	1.13	2349000	**101.9**	30	-	125	
209	Bi	1	3023345	0.79	2910000	**103.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\240SMPL.D\240SMPL.D#
Date Acquired: Sep 16 2011 08:40 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.860**	ug/l	46.86	1.8	900	6	P	
23	**Na**	1	**4331.000**	ug/l	4,331.00	1.1	450000	6	A	
24	**Mg**	1	**4443.000**	ug/l	4,443.00	2.7	450000	6	A	
27	**Al**	1	**433.200**	ug/l	433.20	0.7	450000	6	P	
31	**P**	1	**3755.000**	ug/l	3,755.00	1.8	450000	6	P	
39	**K**	1	**4295.000**	ug/l	4,295.00	3.1	450000	45	A	
44	**Ca**	1	**4543.000**	ug/l	4,543.00	2.8	450000	45	P	
47	**Ti**	1	**45.960**	ug/l	45.96	3.8	4500	45	P	
51	**V**	1	**46.170**	ug/l	46.17	3.4	4500	45	P	
52	**Cr**	1	**47.530**	ug/l	47.53	2.7	4500	45	P	
55	**Mn**	1	**49.360**	ug/l	49.36	4.0	4500	45	P	
57	**Fe**	1	**4470.000**	ug/l	4,470.00	0.9	450000	74	P	
59	**Co**	1	**46.550**	ug/l	46.55	3.7	4500	45	P	
60	**Ni**	1	**47.330**	ug/l	47.33	3.0	4500	45	P	
63	**Cu**	1	**48.490**	ug/l	48.49	3.6	4500	45	P	
66	**Zn**	1	**47.500**	ug/l	47.50	1.1	4500	74	P	
75	**As**	1	**47.730**	ug/l	47.73	3.2	4500	45	P	
78	**Se**	1	**49.040**	ug/l	49.04	4.0	4500	45	P	
88	**Sr**	1	**49.710**	ug/l	49.71	4.0	4500	45	P	
95	**Mo**	1	**47.050**	ug/l	47.05	1.3	4500	74	P	
109	**Ag**	1	**45.810**	ug/l	45.81	0.3	4500	103	P	
111	**Cd**	1	**47.870**	ug/l	47.87	1.4	4500	103	P	
118	**Sn**	1	**47.330**	ug/l	47.33	1.2	4500	103	P	
123	**Sb**	1	**48.120**	ug/l	48.12	0.9	4500	103	P	
135	**Ba**	1	**45.500**	ug/l	45.50	1.5	4500	103	P	
200	**Hg**	1	**2.277**	ug/l	2.28	3.9	45	209	P	
205	**Tl**	1	**45.270**	ug/l	45.27	4.7	4500	165	M	
208	**Pb**	1	**45.460**	ug/l	45.46	3.2	4500	209	P	
238	**U**	1	**51.700**	ug/l	51.70	3.0	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	66983	1.39	81580	**82.1**	30	-	125	
45	Sc	1	1214106	3.10	1568000	**77.4**	30	-	125	
74	Ge	1	3268504	0.68	3965000	**82.4**	30	-	125	
103	Rh	1	4773562	0.42	5756000	**82.9**	30	-	125	
165	Ho	1	2716596	1.13	2702000	**100.5**	30	-	125	
175	Lu	1	2418527	1.50	2349000	**103.0**	30	-	125	
209	Bi	1	3107473	2.76	2910000	**106.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\241SMPL.D\241SMPL.D#
Date Acquired: Sep 16 2011 08:44 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.025**	ug/l	0.02	40.3	900	6	P	
23	Na	1	**28.340**	ug/l	28.34	4.1	450000	6	P	
24	Mg	1	**3.607**	ug/l	3.61	7.5	450000	6	P	
27	Al	1	**0.327**	ug/l	0.33	75.2	450000	6	P	
31	P	1	**-1.417**	ug/l	-1.42	114.7	450000	6	P	
39	K	1	**-29.480**	ug/l	-29.48	7.0	450000	45	P	
44	Ca	1	**4.159**	ug/l	4.16	7.7	450000	45	P	
47	Ti	1	**0.056**	ug/l	0.06	53.2	4500	45	P	
51	V	1	**-0.347**	ug/l	-0.35	2.9	4500	45	P	
52	Cr	1	**0.030**	ug/l	0.03	20.2	4500	45	P	
55	Mn	1	**0.057**	ug/l	0.06	5.7	4500	45	P	
57	Fe	1	**5.542**	ug/l	5.54	13.1	450000	74	P	
59	Co	1	**0.044**	ug/l	0.04	16.6	4500	45	P	
60	Ni	1	**0.031**	ug/l	0.03	46.7	4500	45	P	
63	Cu	1	**-0.050**	ug/l	-0.05	7.3	4500	45	P	
66	Zn	1	**0.062**	ug/l	0.06	12.7	4500	74	P	
75	As	1	**0.004**	ug/l	0.00	506.2	4500	45	P	
78	Se	1	**-0.185**	ug/l	-0.19	35.6	4500	45	P	
88	Sr	1	**0.044**	ug/l	0.04	57.6	4500	45	P	
95	Mo	1	**0.194**	ug/l	0.19	12.9	4500	74	P	
109	Ag	1	**0.041**	ug/l	0.04	2.7	4500	103	P	
111	Cd	1	**0.023**	ug/l	0.02	19.4	4500	103	P	
118	Sn	1	**0.362**	ug/l	0.36	8.4	4500	103	P	
123	Sb	1	**0.133**	ug/l	0.13	22.2	4500	103	P	
135	Ba	1	**0.026**	ug/l	0.03	20.4	4500	103	P	
200	Hg	1	**0.000**	ug/l	0.00	4638.9	45	209	P	
205	Tl	1	**0.749**	ug/l	0.75	8.5	4500	165	P	
208	Pb	1	**0.038**	ug/l	0.04	8.0	4500	209	P	
238	U	1	**0.067**	ug/l	0.07	3.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68805	1.50	81580	**84.3**	30	-	125	
45	Sc	1	1233056	3.09	1568000	**78.6**	30	-	125	
74	Ge	1	3258084	0.86	3965000	**82.2**	30	-	125	
103	Rh	1	4949094	1.26	5756000	**86.0**	30	-	125	
165	Ho	1	2718098	1.87	2702000	**100.6**	30	-	125	
175	Lu	1	2411588	1.37	2349000	**102.7**	30	-	125	
209	Bi	1	3195548	1.82	2910000	**109.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\242SMPL.D\242SMPL.D#
Date Acquired: Sep 16 2011 08:49 am Acq. Method: 00He_ALL.M
Sample Name: 580-28268-A-4-F Vial Number: 4201
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	0.00	777.0	900	6	P	
23	**Na**	1	**6908.000**	ug/l	6,908.00	2.8	450000	6	A	
24	**Mg**	1	**4143.000**	ug/l	4,143.00	0.5	450000	6	A	
27	**Al**	1	**59.800**	ug/l	59.80	5.7	450000	6	P	
31	**P**	1	**45.190**	ug/l	45.19	11.2	450000	6	P	
39	**K**	1	**1004.000**	ug/l	1,004.00	2.1	450000	45	A	
44	**Ca**	1	**12260.000**	ug/l	12,260.00	0.9	450000	45	P	
47	**Ti**	1	**2.214**	ug/l	2.21	0.2	4500	45	P	
51	**V**	1	**1.172**	ug/l	1.17	2.1	4500	45	P	
52	**Cr**	1	**0.417**	ug/l	0.42	10.1	4500	45	P	
55	**Mn**	1	**5.831**	ug/l	5.83	2.8	4500	45	P	
57	**Fe**	1	**99.390**	ug/l	99.39	3.0	450000	74	P	
59	**Co**	1	**0.070**	ug/l	0.07	5.0	4500	45	P	
60	**Ni**	1	**0.360**	ug/l	0.36	9.0	4500	45	P	
63	**Cu**	1	**0.654**	ug/l	0.65	7.1	4500	45	P	
66	**Zn**	1	**11.870**	ug/l	11.87	1.3	4500	74	P	
75	**As**	1	**0.702**	ug/l	0.70	4.0	4500	45	P	
78	**Se**	1	**-0.266**	ug/l	-0.27	19.3	4500	45	P	
88	**Sr**	1	**84.180**	ug/l	84.18	0.8	4500	45	P	
95	**Mo**	1	**0.236**	ug/l	0.24	9.9	4500	74	P	
109	**Ag**	1	**0.010**	ug/l	0.01	40.4	4500	103	P	
111	**Cd**	1	**0.026**	ug/l	0.03	11.2	4500	103	P	
118	**Sn**	1	**0.664**	ug/l	0.66	8.5	4500	103	P	
123	**Sb**	1	**0.153**	ug/l	0.15	13.2	4500	103	P	
135	**Ba**	1	**3.757**	ug/l	3.76	3.3	4500	103	P	
200	**Hg**	1	**0.002**	ug/l	0.00	108.7	45	209	P	
205	**Tl**	1	**0.368**	ug/l	0.37	15.8	4500	165	P	
208	**Pb**	1	**0.839**	ug/l	0.84	3.7	4500	209	P	
238	**U**	1	**0.032**	ug/l	0.03	6.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59641	1.09	81580	**73.1**	30	-	125	
45	Sc	1	1145492	0.64	1568000	**73.1**	30	-	125	
74	Ge	1	3135029	0.61	3965000	**79.1**	30	-	125	
103	Rh	1	4647367	1.92	5756000	**80.7**	30	-	125	
165	Ho	1	2721319	0.57	2702000	**100.7**	30	-	125	
175	Lu	1	2416191	0.42	2349000	**102.9**	30	-	125	
209	Bi	1	3078232	1.87	2910000	**105.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\243SMPL.D\243SMPL.D#
Date Acquired: Sep 16 2011 08:53 am Acq. Method: 00He_ALL.M
Sample Name: 580-28550-A-1-A Vial Number: 4202
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.009**	ug/l	-0.01	149.5	900	6	P	
23	**Na**	1	**5546.000**	ug/l	5,546.00	1.7	450000	6	A	
24	**Mg**	1	**1847.000**	ug/l	1,847.00	0.5	450000	6	A	
27	**Al**	1	**134.000**	ug/l	134.00	1.2	450000	6	P	
31	**P**	1	**56.030**	ug/l	56.03	1.2	450000	6	P	
39	**K**	1	**416.800**	ug/l	416.80	3.0	450000	45	P	
44	**Ca**	1	**4657.000**	ug/l	4,657.00	3.1	450000	45	P	
47	**Ti**	1	**2.489**	ug/l	2.49	27.1	4500	45	P	
51	**V**	1	**1.811**	ug/l	1.81	4.8	4500	45	P	
52	**Cr**	1	**2.404**	ug/l	2.40	3.5	4500	45	P	
55	**Mn**	1	**27.780**	ug/l	27.78	3.4	4500	45	P	
57	**Fe**	1	**125.000**	ug/l	125.00	0.9	450000	74	P	
59	**Co**	1	**0.074**	ug/l	0.07	17.5	4500	45	P	
60	**Ni**	1	**0.526**	ug/l	0.53	8.4	4500	45	P	
63	**Cu**	1	**169.600**	ug/l	169.60	3.5	4500	45	A	
66	**Zn**	1	**53.020**	ug/l	53.02	1.4	4500	74	P	
75	**As**	1	**2.982**	ug/l	2.98	4.4	4500	45	P	
78	**Se**	1	**-0.179**	ug/l	-0.18	15.8	4500	45	P	
88	**Sr**	1	**21.630**	ug/l	21.63	4.6	4500	45	P	
95	**Mo**	1	**1.426**	ug/l	1.43	4.7	4500	74	P	
109	**Ag**	1	**0.019**	ug/l	0.02	15.1	4500	103	P	
111	**Cd**	1	**0.034**	ug/l	0.03	14.2	4500	103	P	
118	**Sn**	1	**0.294**	ug/l	0.29	7.7	4500	103	P	
123	**Sb**	1	**1.061**	ug/l	1.06	1.6	4500	103	P	
135	**Ba**	1	**5.295**	ug/l	5.30	3.8	4500	103	P	
200	**Hg**	1	**-0.004**	ug/l	0.00	32.9	45	209	P	
205	**Tl**	1	**0.150**	ug/l	0.15	15.8	4500	165	P	
208	**Pb**	1	**17.430**	ug/l	17.43	1.3	4500	209	P	
238	**U**	1	**0.025**	ug/l	0.02	19.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63026	0.91	81580	**77.3**	30	-	125	
45	Sc	1	1170380	2.96	1568000	**74.6**	30	-	125	
74	Ge	1	3151649	0.30	3965000	**79.5**	30	-	125	
103	Rh	1	4738536	0.38	5756000	**82.3**	30	-	125	
165	Ho	1	2698008	1.76	2702000	**99.9**	30	-	125	
175	Lu	1	2421213	0.69	2349000	**103.1**	30	-	125	
209	Bi	1	3122548	1.22	2910000	**107.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\244SMPL.D\244SMPL.D#
Date Acquired: Sep 16 2011 08:58 am Acq. Method: 00He_ALL.M
Sample Name: 580-28555-A-1-A Vial Number: 4203
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.121**	ug/l	0.12	9.8	900	6	P	
23	Na	1	**5650.000**	ug/l	5,650.00	0.5	450000	6	A	
24	Mg	1	**2709.000**	ug/l	2,709.00	3.1	450000	6	A	
27	Al	1	**4957.000**	ug/l	4,957.00	0.1	450000	6	A	
31	P	1	**444.100**	ug/l	444.10	1.4	450000	6	P	
39	K	1	**771.200**	ug/l	771.20	5.2	450000	45	M	
44	Ca	1	**11930.000**	ug/l	11,930.00	1.8	450000	45	P	
47	Ti	1	**159.500**	ug/l	159.50	6.7	4500	45	P	
51	V	1	**15.130**	ug/l	15.13	2.8	4500	45	P	
52	Cr	1	**11.150**	ug/l	11.15	2.5	4500	45	P	
55	Mn	1	**330.900**	ug/l	330.90	2.4	4500	45	A	
57	Fe	1	**10840.000**	ug/l	10,840.00	1.0	450000	74	A	
59	Co	1	**5.064**	ug/l	5.06	2.8	4500	45	P	
60	Ni	1	**11.670**	ug/l	11.67	0.6	4500	45	P	
63	Cu	1	**72.960**	ug/l	72.96	2.2	4500	45	P	
66	Zn	1	**418.000**	ug/l	418.00	1.3	4500	74	P	
75	As	1	**11.250**	ug/l	11.25	4.3	4500	45	P	
78	Se	1	**-0.173**	ug/l	-0.17	58.0	4500	45	P	
88	Sr	1	**116.600**	ug/l	116.60	3.2	4500	45	P	
95	Mo	1	**3.674**	ug/l	3.67	9.4	4500	74	P	
109	Ag	1	**0.165**	ug/l	0.16	6.2	4500	103	P	
111	Cd	1	**2.444**	ug/l	2.44	5.1	4500	103	P	
118	Sn	1	**2.243**	ug/l	2.24	5.9	4500	103	P	
123	Sb	1	**8.618**	ug/l	8.62	3.2	4500	103	P	
135	Ba	1	**82.170**	ug/l	82.17	2.0	4500	103	P	
200	Hg	1	**0.060**	ug/l	0.06	14.8	45	209	P	
205	Tl	1	**0.158**	ug/l	0.16	14.4	4500	165	P	
208	Pb	1	**37.630**	ug/l	37.63	1.3	4500	209	P	
238	U	1	**0.773**	ug/l	0.77	1.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60373	1.18	81580	**74.0**	30	-	125	
45	Sc	1	1156699	2.65	1568000	**73.8**	30	-	125	
74	Ge	1	3156404	1.32	3965000	**79.6**	30	-	125	
103	Rh	1	4652037	1.06	5756000	**80.8**	30	-	125	
165	Ho	1	2683120	1.23	2702000	**99.3**	30	-	125	
175	Lu	1	2417863	2.02	2349000	**102.9**	30	-	125	
209	Bi	1	3026113	0.73	2910000	**104.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\245SMPL.D\245SMPL.D#
Date Acquired: Sep 16 2011 09:02 am Acq. Method: 00He_ALL.M
Sample Name: 580-28555-A-2-A Vial Number: 4204
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.042**	ug/l	0.04	48.6	900	6	P	
23	**Na**	1	**3596.000**	ug/l	3,596.00	0.2	450000	6	A	
24	**Mg**	1	**823.600**	ug/l	823.60	1.6	450000	6	P	
27	**Al**	1	**2067.000**	ug/l	2,067.00	1.5	450000	6	A	
31	**P**	1	**213.500**	ug/l	213.50	2.7	450000	6	P	
39	**K**	1	**422.700**	ug/l	422.70	2.7	450000	45	P	
44	**Ca**	1	**4040.000**	ug/l	4,040.00	3.7	450000	45	P	
47	**Ti**	1	**114.400**	ug/l	114.40	5.8	4500	45	P	
51	**V**	1	**5.654**	ug/l	5.65	5.1	4500	45	P	
52	**Cr**	1	**12.200**	ug/l	12.20	3.4	4500	45	P	
55	**Mn**	1	**77.860**	ug/l	77.86	3.9	4500	45	P	
57	**Fe**	1	**3632.000**	ug/l	3,632.00	1.5	450000	74	P	
59	**Co**	1	**2.854**	ug/l	2.85	2.5	4500	45	P	
60	**Ni**	1	**9.551**	ug/l	9.55	3.8	4500	45	P	
63	**Cu**	1	**43.380**	ug/l	43.38	4.0	4500	45	P	
66	**Zn**	1	**320.700**	ug/l	320.70	0.8	4500	74	P	
75	**As**	1	**3.550**	ug/l	3.55	5.3	4500	45	P	
78	**Se**	1	**-0.293**	ug/l	-0.29	17.7	4500	45	P	
88	**Sr**	1	**26.640**	ug/l	26.64	3.9	4500	45	P	
95	**Mo**	1	**2.470**	ug/l	2.47	8.0	4500	74	P	
109	**Ag**	1	**0.043**	ug/l	0.04	5.8	4500	103	P	
111	**Cd**	1	**0.817**	ug/l	0.82	6.9	4500	103	P	
118	**Sn**	1	**1.740**	ug/l	1.74	0.5	4500	103	P	
123	**Sb**	1	**4.949**	ug/l	4.95	2.1	4500	103	P	
135	**Ba**	1	**74.150**	ug/l	74.15	1.9	4500	103	P	
200	**Hg**	1	**0.025**	ug/l	0.02	17.6	45	209	P	
205	**Tl**	1	**0.097**	ug/l	0.10	17.8	4500	165	P	
208	**Pb**	1	**28.710**	ug/l	28.71	1.8	4500	209	P	
238	**U**	1	**0.097**	ug/l	0.10	3.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	61621	1.36	81580	**75.5**	30	-	125	
45	Sc	1	1160476	3.36	1568000	**74.0**	30	-	125	
74	Ge	1	3174139	0.28	3965000	**80.1**	30	-	125	
103	Rh	1	4754137	1.06	5756000	**82.6**	30	-	125	
165	Ho	1	2741745	1.37	2702000	**101.5**	30	-	125	
175	Lu	1	2463397	3.12	2349000	**104.9**	30	-	125	
209	Bi	1	3170845	1.20	2910000	**109.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\246SMPL.D\246SMPL.D#
Date Acquired: Sep 16 2011 09:06 am Acq. Method: 00He_ALL.M
Sample Name: 580-28555-A-3-A Vial Number: 4205
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.020**	ug/l	0.02	20.9	900	6	P	
23	Na	1	**8853.000**	ug/l	8,853.00	3.3	450000	6	A	
24	Mg	1	**612.300**	ug/l	612.30	1.4	450000	6	P	
27	Al	1	**1324.000**	ug/l	1,324.00	2.2	450000	6	P	
31	P	1	**158.200**	ug/l	158.20	1.5	450000	6	P	
39	K	1	**424.300**	ug/l	424.30	4.1	450000	45	P	
44	Ca	1	**4656.000**	ug/l	4,656.00	2.1	450000	45	P	
47	Ti	1	**72.560**	ug/l	72.56	3.0	4500	45	P	
51	V	1	**4.010**	ug/l	4.01	2.8	4500	45	P	
52	Cr	1	**6.978**	ug/l	6.98	4.2	4500	45	P	
55	Mn	1	**58.960**	ug/l	58.96	2.6	4500	45	P	
57	Fe	1	**3404.000**	ug/l	3,404.00	1.5	450000	74	P	
59	Co	1	**2.231**	ug/l	2.23	2.4	4500	45	P	
60	Ni	1	**6.403**	ug/l	6.40	1.7	4500	45	P	
63	Cu	1	**34.590**	ug/l	34.59	2.8	4500	45	P	
66	Zn	1	**229.200**	ug/l	229.20	1.5	4500	74	P	
75	As	1	**1.692**	ug/l	1.69	3.0	4500	45	P	
78	Se	1	**-0.316**	ug/l	-0.32	18.4	4500	45	P	
88	Sr	1	**26.380**	ug/l	26.38	2.3	4500	45	P	
95	Mo	1	**2.213**	ug/l	2.21	4.3	4500	74	P	
109	Ag	1	**0.032**	ug/l	0.03	7.5	4500	103	P	
111	Cd	1	**0.417**	ug/l	0.42	7.7	4500	103	P	
118	Sn	1	**1.101**	ug/l	1.10	2.4	4500	103	P	
123	Sb	1	**1.748**	ug/l	1.75	2.8	4500	103	P	
135	Ba	1	**50.060**	ug/l	50.06	2.2	4500	103	P	
200	Hg	1	**0.019**	ug/l	0.02	35.3	45	209	P	
205	Tl	1	**0.080**	ug/l	0.08	17.6	4500	165	P	
208	Pb	1	**18.330**	ug/l	18.33	0.8	4500	209	P	
238	U	1	**0.067**	ug/l	0.07	1.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59362	2.42	81580	**72.8**	30	-	125	
45	Sc	1	1152641	2.90	1568000	**73.5**	30	-	125	
74	Ge	1	3165139	0.85	3965000	**79.8**	30	-	125	
103	Rh	1	4691107	1.41	5756000	**81.5**	30	-	125	
165	Ho	1	2703146	0.23	2702000	**100.0**	30	-	125	
175	Lu	1	2399486	0.68	2349000	**102.1**	30	-	125	
209	Bi	1	3084246	0.69	2910000	**106.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\247SMPL.D\247SMPL.D#
Date Acquired: Sep 16 2011 09:11 am Acq. Method: 00He_ALL.M
Sample Name: 580-28555-A-4-A Vial Number: 4206
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.156**	ug/l	0.16	14.3	900	6	P	
23	**Na**	1	**2722.000**	ug/l	2,722.00	4.4	450000	6	A	
24	**Mg**	1	**1942.000**	ug/l	1,942.00	2.4	450000	6	A	
27	**Al**	1	**5566.000**	ug/l	5,566.00	1.9	450000	6	A	
31	**P**	1	**553.600**	ug/l	553.60	1.2	450000	6	P	
39	**K**	1	**723.400**	ug/l	723.40	2.1	450000	45	P	
44	**Ca**	1	**4723.000**	ug/l	4,723.00	0.6	450000	45	P	
47	**Ti**	1	**260.300**	ug/l	260.30	1.4	4500	45	P	
51	**V**	1	**15.520**	ug/l	15.52	1.5	4500	45	P	
52	**Cr**	1	**33.880**	ug/l	33.88	1.9	4500	45	P	
55	**Mn**	1	**107.900**	ug/l	107.90	0.9	4500	45	P	
57	**Fe**	1	**7643.000**	ug/l	7,643.00	1.2	450000	74	A	
59	**Co**	1	**4.994**	ug/l	4.99	1.3	4500	45	P	
60	**Ni**	1	**15.130**	ug/l	15.13	2.5	4500	45	P	
63	**Cu**	1	**145.200**	ug/l	145.20	0.8	4500	45	P	
66	**Zn**	1	**1091.000**	ug/l	1,091.00	0.6	4500	74	A	
75	**As**	1	**3.295**	ug/l	3.30	1.8	4500	45	P	
78	**Se**	1	**-0.107**	ug/l	-0.11	102.5	4500	45	P	
88	**Sr**	1	**36.760**	ug/l	36.76	1.3	4500	45	P	
95	**Mo**	1	**2.804**	ug/l	2.80	2.7	4500	74	P	
109	**Ag**	1	**0.205**	ug/l	0.20	3.7	4500	103	P	
111	**Cd**	1	**2.322**	ug/l	2.32	3.9	4500	103	P	
118	**Sn**	1	**6.338**	ug/l	6.34	3.3	4500	103	P	
123	**Sb**	1	**17.060**	ug/l	17.06	5.9	4500	103	P	
135	**Ba**	1	**177.700**	ug/l	177.70	2.2	4500	103	P	
200	**Hg**	1	**0.102**	ug/l	0.10	6.8	45	209	P	
205	**Tl**	1	**0.096**	ug/l	0.10	14.2	4500	165	P	
208	**Pb**	1	**91.090**	ug/l	91.09	0.5	4500	209	A	
238	**U**	1	**0.261**	ug/l	0.26	2.0	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60969	1.22	81580	**74.7**	30	-	125	
45	Sc	1	1164312	0.84	1568000	**74.3**	30	-	125	
74	Ge	1	3156120	1.06	3965000	**79.6**	30	-	125	
103	Rh	1	4729739	1.05	5756000	**82.2**	30	-	125	
165	Ho	1	2701368	0.91	2702000	**100.0**	30	-	125	
175	Lu	1	2457600	2.35	2349000	**104.6**	30	-	125	
209	Bi	1	3163389	1.00	2910000	**108.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\248SMPL.D\248SMPL.D#
Date Acquired: Sep 16 2011 09:15 am Acq. Method: 00He_ALL.M
Sample Name: 580-28268-A-1-C Vial Number: 4207
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.014**	ug/l	-0.01	23.1	900	6	P	
23	**Na**	1	**6924.000**	ug/l	6,924.00	1.2	450000	6	A	
24	**Mg**	1	**4187.000**	ug/l	4,187.00	1.2	450000	6	A	
27	**Al**	1	**13.170**	ug/l	13.17	1.6	450000	6	P	
31	**P**	1	**51.210**	ug/l	51.21	5.5	450000	6	P	
39	**K**	1	**941.300**	ug/l	941.30	0.5	450000	45	A	
44	**Ca**	1	**12310.000**	ug/l	12,310.00	1.0	450000	45	P	
47	**Ti**	1	**0.601**	ug/l	0.60	6.6	4500	45	P	
51	**V**	1	**0.365**	ug/l	0.36	21.2	4500	45	P	
52	**Cr**	1	**0.113**	ug/l	0.11	11.7	4500	45	P	
55	**Mn**	1	**8.747**	ug/l	8.75	0.6	4500	45	P	
57	**Fe**	1	**85.450**	ug/l	85.45	4.3	450000	74	P	
59	**Co**	1	**0.030**	ug/l	0.03	29.0	4500	45	P	
60	**Ni**	1	**0.162**	ug/l	0.16	12.1	4500	45	P	
63	**Cu**	1	**0.503**	ug/l	0.50	3.8	4500	45	P	
66	**Zn**	1	**1.331**	ug/l	1.33	9.2	4500	74	P	
75	**As**	1	**0.649**	ug/l	0.65	11.2	4500	45	P	
78	**Se**	1	**-0.349**	ug/l	-0.35	39.4	4500	45	P	
88	**Sr**	1	**84.610**	ug/l	84.61	1.7	4500	45	P	
95	**Mo**	1	**0.083**	ug/l	0.08	17.2	4500	74	P	
109	**Ag**	1	**0.000**	ug/l	0.00	2726.4	4500	103	P	
111	**Cd**	1	**0.000**	ug/l	0.00	1860.0	4500	103	P	
118	**Sn**	1	**0.087**	ug/l	0.09	23.6	4500	103	P	
123	**Sb**	1	**0.079**	ug/l	0.08	4.8	4500	103	P	
135	**Ba**	1	**3.722**	ug/l	3.72	2.7	4500	103	P	
200	**Hg**	1	**-0.008**	ug/l	-0.01	24.1	45	209	P	
205	**Tl**	1	**0.037**	ug/l	0.04	28.6	4500	165	P	
208	**Pb**	1	**0.116**	ug/l	0.12	8.9	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.00	2.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59978	0.44	81580	**73.5**	30	-	125	
45	Sc	1	1156926	0.69	1568000	**73.8**	30	-	125	
74	Ge	1	3158219	0.71	3965000	**79.7**	30	-	125	
103	Rh	1	4655129	1.22	5756000	**80.9**	30	-	125	
165	Ho	1	2723548	0.52	2702000	**100.8**	30	-	125	
175	Lu	1	2410577	1.09	2349000	**102.6**	30	-	125	
209	Bi	1	3117292	1.91	2910000	**107.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\249SMPL.D\249SMPL.D#
Date Acquired: Sep 16 2011 09:20 am Acq. Method: 00He_ALL.M
Sample Name: 580-28268-A-2-C Vial Number: 4208
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.01	83.2	900	6	P	
23	**Na**	1	**6953.000**	ug/l	6,953.00	0.9	450000	6	A	
24	**Mg**	1	**4288.000**	ug/l	4,288.00	2.3	450000	6	A	
27	**Al**	1	**12.750**	ug/l	12.75	6.8	450000	6	P	
31	**P**	1	**56.310**	ug/l	56.31	7.9	450000	6	P	
39	**K**	1	**1021.000**	ug/l	1,021.00	2.4	450000	45	A	
44	**Ca**	1	**12530.000**	ug/l	12,530.00	3.2	450000	45	P	
47	**Ti**	1	**0.565**	ug/l	0.57	10.5	4500	45	P	
51	**V**	1	**0.700**	ug/l	0.70	17.1	4500	45	P	
52	**Cr**	1	**0.134**	ug/l	0.13	13.4	4500	45	P	
55	**Mn**	1	**19.680**	ug/l	19.68	0.8	4500	45	P	
57	**Fe**	1	**94.800**	ug/l	94.80	2.3	450000	74	P	
59	**Co**	1	**0.050**	ug/l	0.05	12.5	4500	45	P	
60	**Ni**	1	**0.222**	ug/l	0.22	12.7	4500	45	P	
63	**Cu**	1	**0.403**	ug/l	0.40	2.1	4500	45	P	
66	**Zn**	1	**3.071**	ug/l	3.07	4.2	4500	74	P	
75	**As**	1	**0.674**	ug/l	0.67	4.8	4500	45	P	
78	**Se**	1	**-0.262**	ug/l	-0.26	33.6	4500	45	P	
88	**Sr**	1	**86.450**	ug/l	86.45	2.1	4500	45	P	
95	**Mo**	1	**0.117**	ug/l	0.12	14.6	4500	74	P	
109	**Ag**	1	**-0.002**	ug/l	0.00	50.6	4500	103	P	
111	**Cd**	1	**0.001**	ug/l	0.00	452.0	4500	103	P	
118	**Sn**	1	**0.075**	ug/l	0.07	29.5	4500	103	P	
123	**Sb**	1	**0.087**	ug/l	0.09	12.8	4500	103	P	
135	**Ba**	1	**3.767**	ug/l	3.77	6.5	4500	103	P	
200	**Hg**	1	**-0.007**	ug/l	-0.01	15.2	45	209	P	
205	**Tl**	1	**0.044**	ug/l	0.04	21.7	4500	165	P	
208	**Pb**	1	**0.134**	ug/l	0.13	10.6	4500	209	P	
238	**U**	1	**0.004**	ug/l	0.00	27.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59662	1.86	81580	**73.1**	30	-	125	
45	Sc	1	1128622	1.98	1568000	**72.0**	30	-	125	
74	Ge	1	3152600	0.63	3965000	**79.5**	30	-	125	
103	Rh	1	4648131	0.98	5756000	**80.8**	30	-	125	
165	Ho	1	2683617	0.85	2702000	**99.3**	30	-	125	
175	Lu	1	2416576	1.12	2349000	**102.9**	30	-	125	
209	Bi	1	3101088	1.10	2910000	**106.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\250SMPL.D\250SMPL.D#
Date Acquired: Sep 16 2011 09:24 am Acq. Method: 00He_ALL.M
Sample Name: 580-28268-A-3-C Vial Number: 4209
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.017**	ug/l	-0.02	33.2	900	6	P	
23	**Na**	1	**7151.000**	ug/l	7,151.00	1.2	450000	6	A	
24	**Mg**	1	**4364.000**	ug/l	4,364.00	1.5	450000	6	A	
27	**Al**	1	**18.110**	ug/l	18.11	4.2	450000	6	P	
31	**P**	1	**48.620**	ug/l	48.62	6.5	450000	6	P	
39	**K**	1	**1086.000**	ug/l	1,086.00	4.8	450000	45	A	
44	**Ca**	1	**12810.000**	ug/l	12,810.00	1.9	450000	45	P	
47	**Ti**	1	**0.649**	ug/l	0.65	7.4	4500	45	P	
51	**V**	1	**0.674**	ug/l	0.67	10.7	4500	45	P	
52	**Cr**	1	**0.157**	ug/l	0.16	9.6	4500	45	P	
55	**Mn**	1	**5.168**	ug/l	5.17	0.5	4500	45	P	
57	**Fe**	1	**53.750**	ug/l	53.75	5.0	450000	74	P	
59	**Co**	1	**0.043**	ug/l	0.04	11.4	4500	45	P	
60	**Ni**	1	**0.570**	ug/l	0.57	3.7	4500	45	P	
63	**Cu**	1	**0.761**	ug/l	0.76	5.7	4500	45	P	
66	**Zn**	1	**5.971**	ug/l	5.97	0.9	4500	74	P	
75	**As**	1	**0.585**	ug/l	0.59	15.6	4500	45	P	
78	**Se**	1	**-0.185**	ug/l	-0.19	39.3	4500	45	P	
88	**Sr**	1	**88.850**	ug/l	88.85	3.2	4500	45	P	
95	**Mo**	1	**0.103**	ug/l	0.10	6.5	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	91.0	4500	103	P	
111	**Cd**	1	**-0.003**	ug/l	0.00	304.8	4500	103	P	
118	**Sn**	1	**0.370**	ug/l	0.37	4.4	4500	103	P	
123	**Sb**	1	**0.068**	ug/l	0.07	10.7	4500	103	P	
135	**Ba**	1	**3.833**	ug/l	3.83	3.6	4500	103	P	
200	**Hg**	1	**-0.008**	ug/l	-0.01	14.2	45	209	P	
205	**Tl**	1	**0.038**	ug/l	0.04	37.3	4500	165	P	
208	**Pb**	1	**0.315**	ug/l	0.31	3.6	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.00	11.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	57750	0.28	81580	**70.8**	30	-	125	
45	Sc	1	1101102	2.59	1568000	**70.2**	30	-	125	
74	Ge	1	3089573	1.32	3965000	**77.9**	30	-	125	
103	Rh	1	4530081	1.27	5756000	**78.7**	30	-	125	
165	Ho	1	2673173	1.57	2702000	**98.9**	30	-	125	
175	Lu	1	2398789	1.45	2349000	**102.1**	30	-	125	
209	Bi	1	3089391	0.65	2910000	**106.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\251SMPL.D\251SMPL.D#
Date Acquired: Sep 16 2011 09:28 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.840**	ug/l	46.84	1.8	900	6	P	
23	**Na**	1	**4433.000**	ug/l	4,433.00	3.4	450000	6	A	
24	**Mg**	1	**4451.000**	ug/l	4,451.00	2.8	450000	6	A	
27	**Al**	1	**434.400**	ug/l	434.40	1.5	450000	6	P	
31	**P**	1	**3747.000**	ug/l	3,747.00	2.1	450000	6	P	
39	**K**	1	**4132.000**	ug/l	4,132.00	0.9	450000	45	A	
44	**Ca**	1	**4471.000**	ug/l	4,471.00	1.3	450000	45	P	
47	**Ti**	1	**45.190**	ug/l	45.19	1.2	4500	45	P	
51	**V**	1	**45.730**	ug/l	45.73	2.6	4500	45	P	
52	**Cr**	1	**47.080**	ug/l	47.08	1.7	4500	45	P	
55	**Mn**	1	**48.770**	ug/l	48.77	1.2	4500	45	P	
57	**Fe**	1	**4454.000**	ug/l	4,454.00	1.9	450000	74	P	
59	**Co**	1	**46.030**	ug/l	46.03	2.3	4500	45	P	
60	**Ni**	1	**47.000**	ug/l	47.00	3.5	4500	45	P	
63	**Cu**	1	**48.300**	ug/l	48.30	2.8	4500	45	P	
66	**Zn**	1	**47.730**	ug/l	47.73	1.5	4500	74	P	
75	**As**	1	**47.490**	ug/l	47.49	2.1	4500	45	P	
78	**Se**	1	**49.250**	ug/l	49.25	1.7	4500	45	P	
88	**Sr**	1	**49.730**	ug/l	49.73	1.9	4500	45	P	
95	**Mo**	1	**47.520**	ug/l	47.52	3.3	4500	74	P	
109	**Ag**	1	**45.360**	ug/l	45.36	1.6	4500	103	P	
111	**Cd**	1	**47.060**	ug/l	47.06	0.7	4500	103	P	
118	**Sn**	1	**46.710**	ug/l	46.71	1.7	4500	103	P	
123	**Sb**	1	**48.300**	ug/l	48.30	2.0	4500	103	P	
135	**Ba**	1	**44.820**	ug/l	44.82	2.5	4500	103	P	
200	**Hg**	1	**2.323**	ug/l	2.32	2.6	45	209	P	
205	**Tl**	1	**47.760**	ug/l	47.76	3.8	4500	165	A	
208	**Pb**	1	**45.730**	ug/l	45.73	2.4	4500	209	P	
238	**U**	1	**52.560**	ug/l	52.56	2.6	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62508	2.06	81580	**76.6**	30	-	125	
45	Sc	1	1169403	2.26	1568000	**74.6**	30	-	125	
74	Ge	1	3135734	2.46	3965000	**79.1**	30	-	125	
103	Rh	1	4680697	1.38	5756000	**81.3**	30	-	125	
165	Ho	1	2705111	1.15	2702000	**100.1**	30	-	125	
175	Lu	1	2402216	0.48	2349000	**102.3**	30	-	125	
209	Bi	1	3074205	2.33	2910000	**105.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\252SMPL.D\252SMPL.D#
Date Acquired: Sep 16 2011 09:33 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.006**	ug/l	0.01	216.7	900	6	P	
23	Na	1	**34.400**	ug/l	34.40	4.8	450000	6	P	
24	Mg	1	**1.800**	ug/l	1.80	11.4	450000	6	P	
27	Al	1	**0.199**	ug/l	0.20	43.1	450000	6	P	
31	P	1	**-2.506**	ug/l	-2.51	51.4	450000	6	P	
39	K	1	**-31.860**	ug/l	-31.86	8.5	450000	45	P	
44	Ca	1	**1.931**	ug/l	1.93	40.2	450000	45	P	
47	Ti	1	**0.051**	ug/l	0.05	87.8	4500	45	P	
51	V	1	**-0.327**	ug/l	-0.33	3.1	4500	45	P	
52	Cr	1	**0.003**	ug/l	0.00	104.0	4500	45	P	
55	Mn	1	**0.055**	ug/l	0.05	23.9	4500	45	P	
57	Fe	1	**2.111**	ug/l	2.11	14.8	450000	74	P	
59	Co	1	**0.021**	ug/l	0.02	17.9	4500	45	P	
60	Ni	1	**0.027**	ug/l	0.03	68.8	4500	45	P	
63	Cu	1	**0.004**	ug/l	0.00	774.0	4500	45	P	
66	Zn	1	**0.039**	ug/l	0.04	60.3	4500	74	P	
75	As	1	**-0.027**	ug/l	-0.03	46.5	4500	45	P	
78	Se	1	**-0.320**	ug/l	-0.32	14.9	4500	45	P	
88	Sr	1	**0.030**	ug/l	0.03	27.1	4500	45	P	
95	Mo	1	**0.097**	ug/l	0.10	16.9	4500	74	P	
109	Ag	1	**0.014**	ug/l	0.01	12.7	4500	103	P	
111	Cd	1	**0.012**	ug/l	0.01	60.1	4500	103	P	
118	Sn	1	**0.192**	ug/l	0.19	5.0	4500	103	P	
123	Sb	1	**0.062**	ug/l	0.06	26.1	4500	103	P	
135	Ba	1	**0.016**	ug/l	0.02	102.8	4500	103	P	
200	Hg	1	**0.001**	ug/l	0.00	156.5	45	209	P	
205	Tl	1	**0.441**	ug/l	0.44	7.1	4500	165	P	
208	Pb	1	**0.017**	ug/l	0.02	56.4	4500	209	P	
238	U	1	**0.031**	ug/l	0.03	5.8	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	64996	0.88	81580	**79.7**	30	-	125	
45	Sc	1	1174642	3.01	1568000	**74.9**	30	-	125	
74	Ge	1	3158461	0.25	3965000	**79.7**	30	-	125	
103	Rh	1	4854959	2.17	5756000	**84.3**	30	-	125	
165	Ho	1	2720806	1.77	2702000	**100.7**	30	-	125	
175	Lu	1	2425227	1.38	2349000	**103.2**	30	-	125	
209	Bi	1	3199176	1.37	2910000	**109.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\253SMPL.D\253SMPL.D#
Date Acquired: Sep 16 2011 09:37 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-95476/5-A Vial Number: 3501
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.012**	ug/l	-0.01	38.8	900	6	P	
23	Na	1	**40.000**	ug/l	40.00	18.3	450000	6	P	
24	Mg	1	**1.404**	ug/l	1.40	18.5	450000	6	P	
27	Al	1	**0.957**	ug/l	0.96	28.3	450000	6	P	
31	P	1	**-1.795**	ug/l	-1.80	215.5	450000	6	P	
39	K	1	**-31.280**	ug/l	-31.28	8.4	450000	45	P	
44	Ca	1	**3.595**	ug/l	3.60	11.8	450000	45	P	
47	Ti	1	**0.069**	ug/l	0.07	9.2	4500	45	P	
51	V	1	**-0.343**	ug/l	-0.34	4.9	4500	45	P	
52	Cr	1	**0.070**	ug/l	0.07	12.3	4500	45	P	
55	Mn	1	**0.052**	ug/l	0.05	2.8	4500	45	P	
57	Fe	1	**2.685**	ug/l	2.69	12.5	450000	74	P	
59	Co	1	**0.008**	ug/l	0.01	27.7	4500	45	P	
60	Ni	1	**0.090**	ug/l	0.09	8.2	4500	45	P	
63	Cu	1	**0.091**	ug/l	0.09	99.3	4500	45	P	
66	Zn	1	**0.285**	ug/l	0.29	13.6	4500	74	P	
75	As	1	**-0.031**	ug/l	-0.03	13.8	4500	45	P	
78	Se	1	**-0.273**	ug/l	-0.27	11.0	4500	45	P	
88	Sr	1	**0.034**	ug/l	0.03	6.2	4500	45	P	
95	Mo	1	**0.034**	ug/l	0.03	44.3	4500	74	P	
109	Ag	1	**0.003**	ug/l	0.00	50.6	4500	103	P	
111	Cd	1	**-0.002**	ug/l	0.00	497.3	4500	103	P	
118	Sn	1	**0.085**	ug/l	0.09	26.5	4500	103	P	
123	Sb	1	**0.030**	ug/l	0.03	49.8	4500	103	P	
135	Ba	1	**0.022**	ug/l	0.02	23.6	4500	103	P	
200	Hg	1	**-0.001**	ug/l	0.00	197.0	45	209	P	
205	Tl	1	**0.145**	ug/l	0.14	18.9	4500	165	P	
208	Pb	1	**0.017**	ug/l	0.02	55.5	4500	209	P	
238	U	1	**0.009**	ug/l	0.01	17.1	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62862	3.93	81580	**77.1**	30	-	125	
45	Sc	1	1161297	2.84	1568000	**74.1**	30	-	125	
74	Ge	1	3150626	0.61	3965000	**79.5**	30	-	125	
103	Rh	1	4776175	1.14	5756000	**83.0**	30	-	125	
165	Ho	1	2705578	0.62	2702000	**100.1**	30	-	125	
175	Lu	1	2421786	1.03	2349000	**103.1**	30	-	125	
209	Bi	1	3169930	0.42	2910000	**108.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\254SMPL.D\254SMPL.D#
Date Acquired: Sep 16 2011 09:42 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-C-2-A SD Vial Number: 3502
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.008**	ug/l	-0.04	100.5	900	6	P	
23	**Na**	1	**541.500**	ug/l	2,707.50	1.7	450000	6	A	
24	**Mg**	1	**256.600**	ug/l	1,283.00	1.2	450000	6	P	
27	**Al**	1	**3.451**	ug/l	17.26	6.1	450000	6	P	
31	**P**	1	**-0.737**	ug/l	-3.68	200.6	450000	6	P	
39	**K**	1	**120.600**	ug/l	603.00	2.0	450000	45	P	
44	**Ca**	1	**2005.000**	ug/l	10,025.00	0.8	450000	45	P	
47	**Ti**	1	**0.037**	ug/l	0.19	90.5	4500	45	P	
51	**V**	1	**-0.447**	ug/l	-2.24	3.7	4500	45	P	
52	**Cr**	1	**-0.012**	ug/l	-0.06	44.9	4500	45	P	
55	**Mn**	1	**45.550**	ug/l	227.75	0.8	4500	45	P	
57	**Fe**	1	**7.714**	ug/l	38.57	1.0	450000	74	P	
59	**Co**	1	**0.059**	ug/l	0.29	6.6	4500	45	P	
60	**Ni**	1	**0.167**	ug/l	0.83	15.0	4500	45	P	
63	**Cu**	1	**0.152**	ug/l	0.76	29.6	4500	45	P	
66	**Zn**	1	**0.767**	ug/l	3.84	6.2	4500	74	P	
75	**As**	1	**-0.022**	ug/l	-0.11	16.9	4500	45	P	
78	**Se**	1	**-0.358**	ug/l	-1.79	16.8	4500	45	P	
88	**Sr**	1	**20.370**	ug/l	101.85	0.3	4500	45	P	
95	**Mo**	1	**0.019**	ug/l	0.09	14.0	4500	74	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	146.2	4500	103	P	
111	**Cd**	1	**-0.001**	ug/l	-0.01	542.4	4500	103	P	
118	**Sn**	1	**0.056**	ug/l	0.28	24.2	4500	103	P	
123	**Sb**	1	**0.022**	ug/l	0.11	12.9	4500	103	P	
135	**Ba**	1	**4.669**	ug/l	23.35	4.3	4500	103	P	
200	**Hg**	1	**-0.002**	ug/l	-0.01	131.2	45	209	P	
205	**Tl**	1	**0.094**	ug/l	0.47	16.7	4500	165	P	
208	**Pb**	1	**-0.008**	ug/l	-0.04	201.8	4500	209	P	
238	**U**	1	**0.003**	ug/l	0.02	41.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68653	1.55	81580	**84.2**	30	-	125	
45	Sc	1	1218773	0.77	1568000	**77.7**	30	-	125	
74	Ge	1	3236236	0.84	3965000	**81.6**	30	-	125	
103	Rh	1	4809916	1.73	5756000	**83.6**	30	-	125	
165	Ho	1	2693572	1.47	2702000	**99.7**	30	-	125	
175	Lu	1	2454550	0.70	2349000	**104.5**	30	-	125	
209	Bi	1	3178190	2.64	2910000	**109.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\255SMPL.D\255SMPL.D#
Date Acquired: Sep 16 2011 09:46 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-C-2-A Vial Number: 3503
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.006**	ug/l	0.01	273.4	900	6	P	
23	Na	1	**2640.000**	ug/l	2,640.00	2.1	450000	6	A	
24	Mg	1	**1323.000**	ug/l	1,323.00	3.2	450000	6	A	
27	Al	1	**3.484**	ug/l	3.48	6.1	450000	6	P	
31	P	1	**13.430**	ug/l	13.43	29.2	450000	6	P	
39	K	1	**742.800**	ug/l	742.80	1.6	450000	45	P	
44	Ca	1	**9980.000**	ug/l	9,980.00	0.9	450000	45	P	
47	Ti	1	**0.115**	ug/l	0.11	13.1	4500	45	P	
51	V	1	**0.146**	ug/l	0.15	39.6	4500	45	P	
52	Cr	1	**0.085**	ug/l	0.09	21.6	4500	45	P	
55	Mn	1	**235.700**	ug/l	235.70	0.8	4500	45	A	
57	Fe	1	**36.320**	ug/l	36.32	1.5	450000	74	P	
59	Co	1	**0.296**	ug/l	0.30	3.3	4500	45	P	
60	Ni	1	**0.842**	ug/l	0.84	5.1	4500	45	P	
63	Cu	1	**0.026**	ug/l	0.03	16.8	4500	45	P	
66	Zn	1	**3.277**	ug/l	3.28	2.5	4500	74	P	
75	As	1	**0.193**	ug/l	0.19	3.1	4500	45	P	
78	Se	1	**-0.260**	ug/l	-0.26	11.9	4500	45	P	
88	Sr	1	**105.900**	ug/l	105.90	1.4	4500	45	P	
95	Mo	1	**0.019**	ug/l	0.02	40.5	4500	74	P	
109	Ag	1	**-0.001**	ug/l	0.00	70.0	4500	103	P	
111	Cd	1	**-0.008**	ug/l	-0.01	60.7	4500	103	P	
118	Sn	1	**0.053**	ug/l	0.05	19.9	4500	103	P	
123	Sb	1	**0.043**	ug/l	0.04	19.8	4500	103	P	
135	Ba	1	**23.880**	ug/l	23.88	2.4	4500	103	P	
200	Hg	1	**-0.009**	ug/l	-0.01	22.6	45	209	P	
205	Tl	1	**0.053**	ug/l	0.05	26.5	4500	165	P	
208	Pb	1	**-0.002**	ug/l	0.00	796.3	4500	209	P	
238	U	1	**0.003**	ug/l	0.00	36.5	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	60018	2.79	81580	**73.6**	30	-	125	
45	Sc	1	1115709	1.62	1568000	**71.2**	30	-	125	
74	Ge	1	3077447	1.33	3965000	**77.6**	30	-	125	
103	Rh	1	4622897	1.62	5756000	**80.3**	30	-	125	
165	Ho	1	2672659	1.22	2702000	**98.9**	30	-	125	
175	Lu	1	2433059	1.62	2349000	**103.6**	30	-	125	
209	Bi	1	3136563	1.35	2910000	**107.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\256SMPL.D\256SMPL.D#
Date Acquired: Sep 16 2011 09:51 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-C-2-B DU Vial Number: 3504
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.017**	ug/l	0.02	100.9	900	6	P	
23	Na	1	**2649.000**	ug/l	2,649.00	2.1	450000	6	A	
24	Mg	1	**1332.000**	ug/l	1,332.00	4.7	450000	6	A	
27	Al	1	**3.588**	ug/l	3.59	6.8	450000	6	P	
31	P	1	**14.570**	ug/l	14.57	26.3	450000	6	P	
39	K	1	**743.200**	ug/l	743.20	1.1	450000	45	P	
44	Ca	1	**9983.000**	ug/l	9,983.00	0.8	450000	45	P	
47	Ti	1	**0.135**	ug/l	0.13	32.6	4500	45	P	
51	V	1	**0.179**	ug/l	0.18	31.4	4500	45	P	
52	Cr	1	**0.093**	ug/l	0.09	23.3	4500	45	P	
55	Mn	1	**237.300**	ug/l	237.30	1.6	4500	45	A	
57	Fe	1	**36.620**	ug/l	36.62	2.7	450000	74	P	
59	Co	1	**0.300**	ug/l	0.30	4.2	4500	45	P	
60	Ni	1	**0.809**	ug/l	0.81	5.0	4500	45	P	
63	Cu	1	**0.016**	ug/l	0.02	149.8	4500	45	P	
66	Zn	1	**3.302**	ug/l	3.30	2.6	4500	74	P	
75	As	1	**0.195**	ug/l	0.20	5.0	4500	45	P	
78	Se	1	**-0.292**	ug/l	-0.29	44.1	4500	45	P	
88	Sr	1	**106.000**	ug/l	106.00	0.8	4500	45	P	
95	Mo	1	**0.018**	ug/l	0.02	78.7	4500	74	P	
109	Ag	1	**0.000**	ug/l	0.00	11.0	4500	103	P	
111	Cd	1	**-0.002**	ug/l	0.00	226.6	4500	103	P	
118	Sn	1	**0.049**	ug/l	0.05	11.0	4500	103	P	
123	Sb	1	**0.036**	ug/l	0.04	17.1	4500	103	P	
135	Ba	1	**24.120**	ug/l	24.12	2.1	4500	103	P	
200	Hg	1	**-0.007**	ug/l	-0.01	18.5	45	209	P	
205	Tl	1	**0.040**	ug/l	0.04	28.4	4500	165	P	
208	Pb	1	**-0.012**	ug/l	-0.01	27.5	4500	209	P	
238	U	1	**0.002**	ug/l	0.00	29.4	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	59836	2.54	81580	**73.3**	30	-	125	
45	Sc	1	1112534	1.02	1568000	**71.0**	30	-	125	
74	Ge	1	3081454	0.65	3965000	**77.7**	30	-	125	
103	Rh	1	4568241	0.65	5756000	**79.4**	30	-	125	
165	Ho	1	2680652	1.76	2702000	**99.2**	30	-	125	
175	Lu	1	2388126	1.87	2349000	**101.7**	30	-	125	
209	Bi	1	3127714	1.57	2910000	**107.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\257SMPL.D\257SMPL.D#
Date Acquired: Sep 16 2011 09:55 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-C-2-C MS Vial Number: 3505
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.052**	ug/l	102.60	1.8	900	6	P	
23	**Na**	1	**489.700**	ug/l	24,485.00	2.8	450000	6	M	
24	**Mg**	1	**442.100**	ug/l	22,105.00	1.0	450000	6	P	
27	**Al**	1	**83.510**	ug/l	4,175.50	1.6	450000	6	P	
31	**P**	1	**336.700**	ug/l	16,835.00	1.5	450000	6	P	
39	**K**	1	**399.200**	ug/l	19,960.00	5.1	450000	45	P	
44	**Ca**	1	**622.200**	ug/l	31,110.00	3.3	450000	45	P	
47	**Ti**	1	**105.400**	ug/l	5,270.00	3.9	4500	45	P	
51	**V**	1	**21.750**	ug/l	1,087.50	4.4	4500	45	P	
52	**Cr**	1	**9.138**	ug/l	456.90	3.8	4500	45	P	
55	**Mn**	1	**27.840**	ug/l	1,392.00	3.5	4500	45	P	
57	**Fe**	1	**473.300**	ug/l	23,665.00	0.9	450000	74	P	
59	**Co**	1	**22.320**	ug/l	1,116.00	4.3	4500	45	P	
60	**Ni**	1	**22.930**	ug/l	1,146.50	2.6	4500	45	P	
63	**Cu**	1	**12.170**	ug/l	608.50	3.6	4500	45	P	
66	**Zn**	1	**22.790**	ug/l	1,139.50	0.7	4500	74	P	
75	**As**	1	**91.940**	ug/l	4,597.00	4.0	4500	45	P	
78	**Se**	1	**95.190**	ug/l	4,759.50	3.7	4500	45	P	
88	**Sr**	1	**1.819**	ug/l	90.95	7.7	4500	45	P	
95	**Mo**	1	**110.900**	ug/l	5,545.00	1.7	4500	74	P	
109	**Ag**	1	**12.950**	ug/l	647.50	2.1	4500	103	P	
111	**Cd**	1	**2.297**	ug/l	114.85	1.9	4500	103	P	
118	**Sn**	1	**104.600**	ug/l	5,230.00	3.1	4500	103	P	
123	**Sb**	1	**55.140**	ug/l	2,757.00	2.4	4500	103	P	
135	**Ba**	1	**85.230**	ug/l	4,261.50	2.4	4500	103	P	
200	**Hg**	1	**1.108**	ug/l	55.40	4.5	45	209	P	
205	**Tl**	1	**100.400**	ug/l	5,020.00	1.6	4500	165	A	
208	**Pb**	1	**22.290**	ug/l	1,114.50	4.7	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	151.6	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68390	0.81	81580	**83.8**	30	-	125	
45	Sc	1	1198182	4.18	1568000	**76.4**	30	-	125	
74	Ge	1	3219881	0.98	3965000	**81.2**	30	-	125	
103	Rh	1	4808555	1.74	5756000	**83.5**	30	-	125	
165	Ho	1	2698706	1.71	2702000	**99.9**	30	-	125	
175	Lu	1	2429480	0.78	2349000	**103.4**	30	-	125	
209	Bi	1	3080404	4.51	2910000	**105.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\258SMPL.D\258SMPL.D#
Date Acquired: Sep 16 2011 09:59 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-C-2-D MSD Vial Number: 3506
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.207**	ug/l	110.35	0.6	900	6	P	
23	**Na**	1	**502.200**	ug/l	25,110.00	1.7	450000	6	A	
24	**Mg**	1	**458.700**	ug/l	22,935.00	0.8	450000	6	P	
27	**Al**	1	**88.390**	ug/l	4,419.50	0.4	450000	6	P	
31	**P**	1	**349.700**	ug/l	17,485.00	0.7	450000	6	P	
39	**K**	1	**409.300**	ug/l	20,465.00	2.7	450000	45	P	
44	**Ca**	1	**634.500**	ug/l	31,725.00	2.0	450000	45	P	
47	**Ti**	1	**108.400**	ug/l	5,420.00	1.6	4500	45	P	
51	**V**	1	**21.990**	ug/l	1,099.50	2.1	4500	45	P	
52	**Cr**	1	**9.268**	ug/l	463.40	2.8	4500	45	P	
55	**Mn**	1	**28.320**	ug/l	1,416.00	1.9	4500	45	P	
57	**Fe**	1	**487.300**	ug/l	24,365.00	1.3	450000	74	P	
59	**Co**	1	**22.650**	ug/l	1,132.50	1.7	4500	45	P	
60	**Ni**	1	**23.740**	ug/l	1,187.00	1.2	4500	45	P	
63	**Cu**	1	**12.500**	ug/l	625.00	0.9	4500	45	P	
66	**Zn**	1	**23.340**	ug/l	1,167.00	1.2	4500	74	P	
75	**As**	1	**93.740**	ug/l	4,687.00	1.9	4500	45	P	
78	**Se**	1	**95.510**	ug/l	4,775.50	2.0	4500	45	P	
88	**Sr**	1	**1.799**	ug/l	89.95	2.8	4500	45	P	
95	**Mo**	1	**114.300**	ug/l	5,715.00	1.0	4500	74	P	
109	**Ag**	1	**13.310**	ug/l	665.50	1.8	4500	103	P	
111	**Cd**	1	**2.312**	ug/l	115.60	6.3	4500	103	P	
118	**Sn**	1	**110.400**	ug/l	5,520.00	2.5	4500	103	P	
123	**Sb**	1	**58.060**	ug/l	2,903.00	2.8	4500	103	P	
135	**Ba**	1	**88.420**	ug/l	4,421.00	1.5	4500	103	P	
200	**Hg**	1	**1.139**	ug/l	56.95	4.4	45	209	P	
205	**Tl**	1	**103.800**	ug/l	5,190.00	1.0	4500	165	A	
208	**Pb**	1	**22.810**	ug/l	1,140.50	4.9	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.00	1731.7	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	68637	1.30	81580	**84.1**	30	-	125	
45	Sc	1	1215067	2.03	1568000	**77.5**	30	-	125	
74	Ge	1	3236806	1.07	3965000	**81.6**	30	-	125	
103	Rh	1	4823945	1.64	5756000	**83.8**	30	-	125	
165	Ho	1	2677639	0.88	2702000	**99.1**	30	-	125	
175	Lu	1	2431279	0.87	2349000	**103.5**	30	-	125	
209	Bi	1	3102231	4.22	2910000	**106.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\259SMPL.D\259SMPL.D#
Date Acquired: Sep 16 2011 10:04 am Acq. Method: 00He_ALL.M
Sample Name: 580-28632-C-2-A PDS Vial Number: 3507
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.052**	ug/l	102.60	4.2	900	6	P	
23	**Na**	1	**480.500**	ug/l	24,025.00	1.0	450000	6	A	
24	**Mg**	1	**446.100**	ug/l	22,305.00	1.4	450000	6	P	
27	**Al**	1	**85.040**	ug/l	4,252.00	0.6	450000	6	P	
31	**P**	1	**337.300**	ug/l	16,865.00	1.9	450000	6	P	
39	**K**	1	**398.500**	ug/l	19,925.00	1.3	450000	45	P	
44	**Ca**	1	**620.700**	ug/l	31,035.00	1.1	450000	45	P	
47	**Ti**	1	**106.900**	ug/l	5,345.00	0.3	4500	45	P	
51	**V**	1	**21.900**	ug/l	1,095.00	2.0	4500	45	P	
52	**Cr**	1	**9.148**	ug/l	457.40	2.4	4500	45	P	
55	**Mn**	1	**27.990**	ug/l	1,399.50	1.6	4500	45	P	
57	**Fe**	1	**478.900**	ug/l	23,945.00	0.8	450000	74	P	
59	**Co**	1	**22.330**	ug/l	1,116.50	1.2	4500	45	P	
60	**Ni**	1	**22.950**	ug/l	1,147.50	1.7	4500	45	P	
63	**Cu**	1	**12.230**	ug/l	611.50	1.6	4500	45	P	
66	**Zn**	1	**23.120**	ug/l	1,156.00	1.0	4500	74	P	
75	**As**	1	**91.610**	ug/l	4,580.50	1.6	4500	45	P	
78	**Se**	1	**94.950**	ug/l	4,747.50	1.9	4500	45	P	
88	**Sr**	1	**1.756**	ug/l	87.80	4.7	4500	45	P	
95	**Mo**	1	**112.500**	ug/l	5,625.00	1.5	4500	74	P	
109	**Ag**	1	**13.380**	ug/l	669.00	1.5	4500	103	P	
111	**Cd**	1	**2.353**	ug/l	117.65	1.6	4500	103	P	
118	**Sn**	1	**110.000**	ug/l	5,500.00	1.4	4500	103	P	
123	**Sb**	1	**58.380**	ug/l	2,919.00	1.8	4500	103	P	
135	**Ba**	1	**88.170**	ug/l	4,408.50	1.8	4500	103	P	
200	**Hg**	1	**1.109**	ug/l	55.45	4.5	45	209	P	
205	**Tl**	1	**103.600**	ug/l	5,180.00	0.8	4500	165	A	
208	**Pb**	1	**22.740**	ug/l	1,137.00	4.5	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.01	133.3	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	70478	1.68	81580	**86.4**	30	-	125	
45	Sc	1	1230403	1.52	1568000	**78.5**	30	-	125	
74	Ge	1	3268242	1.28	3965000	**82.4**	30	-	125	
103	Rh	1	4784555	0.98	5756000	**83.1**	30	-	125	
165	Ho	1	2687738	2.26	2702000	**99.5**	30	-	125	
175	Lu	1	2429807	1.84	2349000	**103.4**	30	-	125	
209	Bi	1	3089079	4.06	2910000	**106.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\260SMPL.D\260SMPL.D#
Date Acquired: Sep 16 2011 10:08 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-95476/6-A Vial Number: 3508
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.975**	ug/l	98.75	1.8	900	6	P	
23	**Na**	1	**408.400**	ug/l	20,420.00	2.3	450000	6	P	
24	**Mg**	1	**379.000**	ug/l	18,950.00	2.4	450000	6	P	
27	**Al**	1	**74.200**	ug/l	3,710.00	2.3	450000	6	P	
31	**P**	1	**299.300**	ug/l	14,965.00	3.5	450000	6	P	
39	**K**	1	**329.600**	ug/l	16,480.00	3.7	450000	45	P	
44	**Ca**	1	**388.300**	ug/l	19,415.00	1.6	450000	45	P	
47	**Ti**	1	**92.500**	ug/l	4,625.00	2.0	4500	45	P	
51	**V**	1	**19.420**	ug/l	971.00	1.4	4500	45	P	
52	**Cr**	1	**7.994**	ug/l	399.70	3.2	4500	45	P	
55	**Mn**	1	**20.980**	ug/l	1,049.00	2.6	4500	45	P	
57	**Fe**	1	**417.500**	ug/l	20,875.00	0.5	450000	74	P	
59	**Co**	1	**19.820**	ug/l	991.00	2.0	4500	45	P	
60	**Ni**	1	**20.280**	ug/l	1,014.00	3.2	4500	45	P	
63	**Cu**	1	**10.570**	ug/l	528.50	2.1	4500	45	P	
66	**Zn**	1	**21.200**	ug/l	1,060.00	1.9	4500	74	P	
75	**As**	1	**82.840**	ug/l	4,142.00	2.6	4500	45	P	
78	**Se**	1	**84.920**	ug/l	4,246.00	3.8	4500	45	P	
88	**Sr**	1	**0.006**	ug/l	0.29	39.2	4500	45	P	
95	**Mo**	1	**101.100**	ug/l	5,055.00	0.8	4500	74	P	
109	**Ag**	1	**11.640**	ug/l	582.00	0.2	4500	103	P	
111	**Cd**	1	**1.914**	ug/l	95.70	4.5	4500	103	P	
118	**Sn**	1	**99.300**	ug/l	4,965.00	1.6	4500	103	P	
123	**Sb**	1	**59.670**	ug/l	2,983.50	1.3	4500	103	P	
135	**Ba**	1	**74.740**	ug/l	3,737.00	1.3	4500	103	P	
200	**Hg**	1	**0.950**	ug/l	47.51	2.7	45	209	P	
205	**Tl**	1	**82.130**	ug/l	4,106.50	3.6	4500	165	A	
208	**Pb**	1	**19.200**	ug/l	960.00	2.0	4500	209	P	
238	**U**	1	**0.000**	ug/l	0.01	283.9	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62315	1.37	81580	**76.4**	30	-	125	
45	Sc	1	1147048	2.26	1568000	**73.2**	30	-	125	
74	Ge	1	3125814	0.64	3965000	**78.8**	30	-	125	
103	Rh	1	4768015	1.11	5756000	**82.8**	30	-	125	
165	Ho	1	2659799	2.08	2702000	**98.4**	30	-	125	
175	Lu	1	2406840	1.55	2349000	**102.5**	30	-	125	
209	Bi	1	3176333	1.31	2910000	**109.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\261SMPL.D\261SMPL.D#
Date Acquired: Sep 16 2011 10:13 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-95476/7-A Vial Number: 3509
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.965**	ug/l	98.25	5.3	900	6	P	
23	**Na**	1	**406.800**	ug/l	20,340.00	0.9	450000	6	P	
24	**Mg**	1	**375.900**	ug/l	18,795.00	0.6	450000	6	P	
27	**Al**	1	**73.610**	ug/l	3,680.50	1.6	450000	6	P	
31	**P**	1	**298.600**	ug/l	14,930.00	2.5	450000	6	P	
39	**K**	1	**324.300**	ug/l	16,215.00	4.0	450000	45	P	
44	**Ca**	1	**393.300**	ug/l	19,665.00	1.3	450000	45	P	
47	**Ti**	1	**91.450**	ug/l	4,572.50	3.1	4500	45	P	
51	**V**	1	**19.160**	ug/l	958.00	3.0	4500	45	P	
52	**Cr**	1	**7.874**	ug/l	393.70	3.6	4500	45	P	
55	**Mn**	1	**20.690**	ug/l	1,034.50	2.8	4500	45	P	
57	**Fe**	1	**419.600**	ug/l	20,980.00	1.6	450000	74	P	
59	**Co**	1	**19.480**	ug/l	974.00	2.1	4500	45	P	
60	**Ni**	1	**19.840**	ug/l	992.00	1.7	4500	45	P	
63	**Cu**	1	**10.490**	ug/l	524.50	1.3	4500	45	P	
66	**Zn**	1	**22.190**	ug/l	1,109.50	3.2	4500	74	P	
75	**As**	1	**81.600**	ug/l	4,080.00	1.5	4500	45	P	
78	**Se**	1	**83.450**	ug/l	4,172.50	2.4	4500	45	P	
88	**Sr**	1	**0.011**	ug/l	0.55	82.2	4500	45	P	
95	**Mo**	1	**100.400**	ug/l	5,020.00	1.5	4500	74	P	
109	**Ag**	1	**11.740**	ug/l	587.00	1.9	4500	103	P	
111	**Cd**	1	**2.010**	ug/l	100.50	4.2	4500	103	P	
118	**Sn**	1	**99.850**	ug/l	4,992.50	2.4	4500	103	P	
123	**Sb**	1	**59.310**	ug/l	2,965.50	2.1	4500	103	P	
135	**Ba**	1	**75.960**	ug/l	3,798.00	2.4	4500	103	P	
200	**Hg**	1	**0.921**	ug/l	46.05	1.4	45	209	P	
205	**Tl**	1	**82.200**	ug/l	4,110.00	4.0	4500	165	A	
208	**Pb**	1	**18.870**	ug/l	943.50	1.8	4500	209	P	
238	**U**	1	**0.000**	ug/l	-0.02	115.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62046	0.98	81580	**76.1**	30	-	125	
45	Sc	1	1154910	1.78	1568000	**73.7**	30	-	125	
74	Ge	1	3094477	0.90	3965000	**78.0**	30	-	125	
103	Rh	1	4701954	1.91	5756000	**81.7**	30	-	125	
165	Ho	1	2682514	0.83	2702000	**99.3**	30	-	125	
175	Lu	1	2388823	1.68	2349000	**101.7**	30	-	125	
209	Bi	1	3213671	1.40	2910000	**110.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\262SMPL.D\262SMPL.D#
Date Acquired: Sep 16 2011 10:17 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.780**	ug/l	46.78	4.9	900	6	P	
23	**Na**	1	**4384.000**	ug/l	4,384.00	3.9	450000	6	A	
24	**Mg**	1	**4416.000**	ug/l	4,416.00	3.5	450000	6	A	
27	**Al**	1	**437.300**	ug/l	437.30	3.9	450000	6	P	
31	**P**	1	**3725.000**	ug/l	3,725.00	4.3	450000	6	P	
39	**K**	1	**4125.000**	ug/l	4,125.00	5.8	450000	45	A	
44	**Ca**	1	**4468.000**	ug/l	4,468.00	6.4	450000	45	P	
47	**Ti**	1	**45.190**	ug/l	45.19	7.4	4500	45	P	
51	**V**	1	**45.400**	ug/l	45.40	5.4	4500	45	P	
52	**Cr**	1	**46.960**	ug/l	46.96	6.3	4500	45	P	
55	**Mn**	1	**48.980**	ug/l	48.98	5.6	4500	45	P	
57	**Fe**	1	**4409.000**	ug/l	4,409.00	4.7	450000	74	P	
59	**Co**	1	**45.900**	ug/l	45.90	5.6	4500	45	P	
60	**Ni**	1	**46.860**	ug/l	46.86	6.6	4500	45	P	
63	**Cu**	1	**47.900**	ug/l	47.90	5.7	4500	45	P	
66	**Zn**	1	**46.790**	ug/l	46.79	5.8	4500	74	P	
75	**As**	1	**47.840**	ug/l	47.84	6.4	4500	45	P	
78	**Se**	1	**49.400**	ug/l	49.40	5.7	4500	45	P	
88	**Sr**	1	**49.860**	ug/l	49.86	6.7	4500	45	P	
95	**Mo**	1	**47.200**	ug/l	47.20	4.8	4500	74	P	
109	**Ag**	1	**45.450**	ug/l	45.45	5.9	4500	103	P	
111	**Cd**	1	**48.320**	ug/l	48.32	6.3	4500	103	P	
118	**Sn**	1	**47.750**	ug/l	47.75	6.9	4500	103	P	
123	**Sb**	1	**48.640**	ug/l	48.64	6.2	4500	103	P	
135	**Ba**	1	**45.360**	ug/l	45.36	6.3	4500	103	P	
200	**Hg**	1	**2.318**	ug/l	2.32	6.0	45	209	P	
205	**Tl**	1	**48.140**	ug/l	48.14	9.3	4500	165	A	
208	**Pb**	1	**45.230**	ug/l	45.23	5.8	4500	209	P	
238	**U**	1	**51.990**	ug/l	51.99	5.8	4500	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	62752	3.71	81580	**76.9**	30	-	125	
45	Sc	1	1174788	5.55	1568000	**74.9**	30	-	125	
74	Ge	1	3169027	3.59	3965000	**79.9**	30	-	125	
103	Rh	1	4654054	5.64	5756000	**80.9**	30	-	125	
165	Ho	1	2713070	6.53	2702000	**100.4**	30	-	125	
175	Lu	1	2425598	4.97	2349000	**103.3**	30	-	125	
209	Bi	1	3094634	5.37	2910000	**106.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\091511PM.B\263SMPL.D\263SMPL.D#
Date Acquired: Sep 16 2011 10:21 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00007,ICV 00010,ICSA&ICSAB 091211

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 16 2011 10:30 am
ISTD Ref File : C:\ICPCHEM\1\DATA\091511PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.003**	ug/l	0.00	356.6	900	6	P	
23	Na	1	**35.210**	ug/l	35.21	1.7	450000	6	P	
24	Mg	1	**1.437**	ug/l	1.44	5.4	450000	6	P	
27	Al	1	**-0.003**	ug/l	0.00	2228.9	450000	6	P	
31	P	1	**-5.374**	ug/l	-5.37	23.2	450000	6	P	
39	K	1	**-31.840**	ug/l	-31.84	3.0	450000	45	P	
44	Ca	1	**0.177**	ug/l	0.18	118.8	450000	45	P	
47	Ti	1	**0.063**	ug/l	0.06	17.0	4500	45	P	
51	V	1	**-0.292**	ug/l	-0.29	9.4	4500	45	P	
52	Cr	1	**0.008**	ug/l	0.01	87.1	4500	45	P	
55	Mn	1	**0.047**	ug/l	0.05	13.9	4500	45	P	
57	Fe	1	**2.045**	ug/l	2.05	9.2	450000	74	P	
59	Co	1	**0.026**	ug/l	0.03	36.3	4500	45	P	
60	Ni	1	**0.017**	ug/l	0.02	68.6	4500	45	P	
63	Cu	1	**0.023**	ug/l	0.02	94.2	4500	45	P	
66	Zn	1	**0.049**	ug/l	0.05	30.7	4500	74	P	
75	As	1	**-0.013**	ug/l	-0.01	189.6	4500	45	P	
78	Se	1	**-0.255**	ug/l	-0.26	17.2	4500	45	P	
88	Sr	1	**0.018**	ug/l	0.02	21.5	4500	45	P	
95	Mo	1	**0.195**	ug/l	0.19	15.6	4500	74	P	
109	Ag	1	**0.018**	ug/l	0.02	16.2	4500	103	P	
111	Cd	1	**0.007**	ug/l	0.01	70.1	4500	103	P	
118	Sn	1	**0.492**	ug/l	0.49	14.6	4500	103	P	
123	Sb	1	**0.293**	ug/l	0.29	13.5	4500	103	P	
135	Ba	1	**0.015**	ug/l	0.01	83.4	4500	103	P	
200	Hg	1	**-0.001**	ug/l	0.00	256.6	45	209	P	
205	Tl	1	**0.680**	ug/l	0.68	10.5	4500	165	P	
208	Pb	1	**0.021**	ug/l	0.02	69.7	4500	209	P	
238	U	1	**0.030**	ug/l	0.03	8.2	4500	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	63904	0.36	81580	**78.3**	30	-	125	
45	Sc	1	1165902	1.10	1568000	**74.4**	30	-	125	
74	Ge	1	3197547	1.90	3965000	**80.6**	30	-	125	
103	Rh	1	4797401	2.07	5756000	**83.3**	30	-	125	
165	Ho	1	2714934	1.25	2702000	**100.5**	30	-	125	
175	Lu	1	2444065	0.61	2349000	**104.0**	30	-	125	
209	Bi	1	3195950	3.37	2910000	**109.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

091311-HG

Method: Hg Operator: Admin Date of Analysis: 13 Sep 2011 11:56:51

Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
STD 0	298	ug/l	0.000	13 Sep 2011 12:05:50		6050	-	Std	Hg	0.000
STD 1	1920	ug/l	0.298	13 Sep 2011 12:07:28		6051	-	Std	Hg	0.200
STD 2	4498	ug/l	0.327	13 Sep 2011 12:09:06		6052	-	Std	Hg	0.500
STD 3	18284	ug/l	0.354	13 Sep 2011 12:10:45		6053	-	Std	Hg	2.000
STD 4	44969	ug/l	0.472	13 Sep 2011 12:12:25		6054	-	Std	Hg	5.000
STD 5	90422	ug/l	0.438	13 Sep 2011 12:14:10		6055	-	Std	Hg	10.000

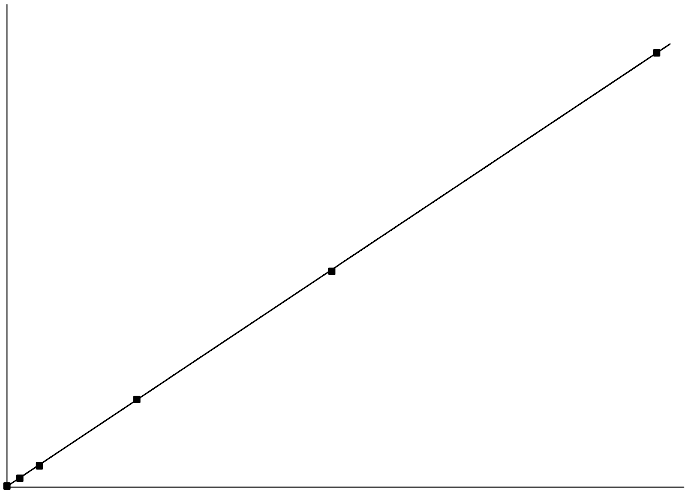
90422 µ Abs

A:0.0000e+000

B:1.1088e-004

C:-1.4016e-002

R:0.9999890



Conc 10.0000

ICV	3.879	ug/l	0.196	13 Sep 2011 12:16:05		6056	Linear	CK STND	Hg	-
ICB	-0.053	ug/l	-0.690	13 Sep 2011 12:18:05		6057	Linear	CK STND	Hg	-
RL	0.188	ug/l	0.074	13 Sep 2011 12:19:57		6058	Linear	CK STND	Hg	-
CCV	4.781	ug/l	0.059	13 Sep 2011 12:21:35		6059	Linear	CK STND	Hg	-
CCB	-0.045	ug/l	-0.808	13 Sep 2011 12:23:13		6060	Linear	CK STND	Hg	-
MB 580-95102/17-A	< 0.000	ug/l	-2.107	13 Sep 2011 12:25:06		6061	Linear	SMPL	Hg	-
LCS 580-95102/18-A	1.897	ug/l	1.048	13 Sep 2011 12:26:43	TAC103 PB95102	6062	Linear	SMPL	Hg	-
LCSD 580-95102/19-A	1.821	ug/l	0.743	13 Sep 2011 12:28:20	TAC103 PB95102	6063	Linear	SMPL	Hg	-
LCSSRM 580-95102/20-A 10X	3.853	ug/l	0.376	13 Sep 2011 12:30:05	TAC103 PB95102	6064	Linear	SMPL	Hg	-
580-28356-B-1-A	1.484	ug/l	0.164	13 Sep 2011 12:31:50	TAC103 PB95102	6065	Linear	SMPL	Hg	-
580-28356-B-1-B DU	1.411	ug/l	0.252	13 Sep 2011 12:33:44	TAC103 PB95102	6066	Linear	SMPL	Hg	-
580-28356-B-1-C MS	3.504	ug/l	0.523	13 Sep 2011 12:35:26	TAC103 PB95102	6067	Linear	SMPL	Hg	-
580-28356-B-1-D MSD	3.636	ug/l	0.607	13 Sep 2011 12:37:07	TAC103 PB95102	6068	Linear	SMPL	Hg	-
580-28356-A-2-A	1.066	ug/l	0.017	13 Sep 2011 12:38:57	TAC103 PB95102	6069	Linear	SMPL	Hg	-
580-28356-A-3-A	1.037	ug/l	0.892	13 Sep 2011 12:40:46	TAC103 PB95102	6070	Linear	SMPL	Hg	-
CCV	4.751	ug/l	0.532	13 Sep 2011 12:42:27		6071	Linear	CK STND	Hg	-
CCB	-0.053	ug/l	-0.170	13 Sep 2011 12:44:06		6072	Linear	CK STND	Hg	-
580-28356-A-4-A	2.365	ug/l	0.340	13 Sep 2011 12:45:59	TAC103 PB95102	6073	Linear	SMPL	Hg	-
580-28356-A-5-A	1.304	ug/l	0.952	13 Sep 2011 12:47:37	TAC103 PB95102	6074	Linear	SMPL	Hg	-
580-28370-A-6-A	2.910	ug/l	0.233	13 Sep 2011 12:49:24	TAC103 PB95102	6075	Linear	SMPL	Hg	-
580-28370-A-7-A	1.033	ug/l	0.028	13 Sep 2011 12:51:04	TAC103 PB95102	6076	Linear	SMPL	Hg	-
580-28370-A-8-A	0.989	ug/l	0.173	13 Sep 2011 12:52:53	TAC103 PB95102	6077	Linear	SMPL	Hg	-
580-28372-A-1-A	1.028	ug/l	0.176	13 Sep 2011 12:54:33	TAC103 PB95102	6078	Linear	SMPL	Hg	-
580-28372-A-2-A	3.368	ug/l	0.080	13 Sep 2011 12:56:11	TAC103 PB95102	6079	Linear	SMPL	Hg	-
580-28372-A-3-A	2.040	ug/l	0.181	13 Sep 2011 12:57:50	TAC103 PB95102	6080	Linear	SMPL	Hg	-
580-28372-A-4-A 10X	1.573	ug/l	0.329	13 Sep 2011 12:59:38	TAC103 PB95102	6081	Linear	SMPL	Hg	-
580-28343-A-1-D 10X	0.307	ug/l	0.059	13 Sep 2011 13:01:21	TAC103 PB95102	6082	Linear	SMPL	Hg	-
CCV	4.805	ug/l	0.710	13 Sep 2011 13:03:04		6083	Linear	CK STND	Hg	-
CCB	-0.046	ug/l	-0.496	13 Sep 2011 13:04:43		6084	Linear	CK STND	Hg	-
MB 580-95203/6-A	< 0.000	ug/l	-4.363	13 Sep 2011 13:06:37	TAC103 PB 95203	6085	Linear	SMPL	Hg	-
LCS 580-95203/7-A	1.791	ug/l	0.319	13 Sep 2011 13:08:15	TAC103 PB 95203	6086	Linear	SMPL	Hg	-
LCSD 580-95203/8-A	1.769	ug/l	0.424	13 Sep 2011 13:09:53	TAC103 PB 95203	6087	Linear	SMPL	Hg	-
580-28510-A-1-F	< 0.000	ug/l	-0.462	13 Sep 2011 13:11:39	TAC103 PB 95203	6088	Linear	SMPL	Hg	-
580-28510-A-1-G DU	< 0.000	ug/l	-5.988	13 Sep 2011 13:13:25	TAC103 PB 95203	6089	Linear	SMPL	Hg	-
580-28510-A-1-H MS	1.814	ug/l	0.644	13 Sep 2011 13:15:02	TAC103 PB 95203	6090	Linear	SMPL	Hg	-
580-28510-A-1-I MSD	1.774	ug/l	0.538	13 Sep 2011 13:16:39	TAC103 PB 95203	6091	Linear	SMPL	Hg	-
580-28503-C-1-C	< 0.000	ug/l	-0.407	13 Sep 2011 13:18:26	TAC103 PB 95203	6092	Linear	SMPL	Hg	-
CCV	4.909	ug/l	0.177	13 Sep 2011 13:20:13		6093	Linear	CK STND	Hg	-
CCB	-0.048	ug/l	-0.326	13 Sep 2011 13:21:50		6094	Linear	CK STND	Hg	-
CCV	4.980	ug/l	0.251	13 Sep 2011 15:09:53		6095	Linear	CK STND	Hg	-
CCB	-0.045	ug/l	-0.201	13 Sep 2011 15:11:29		6096	Linear	CK STND	Hg	-
MB 580-95264/21-A	< 0.000	ug/l	-0.000	13 Sep 2011 15:13:22	TAC103 PB 95264	6097	Linear	SMPL	Hg	-
LCS 580-95264/22-A	1.895	ug/l	0.225	13 Sep 2011 15:14:59	TAC103 PB 95264	6098	Linear	SMPL	Hg	-
LCSD 580-95264/23-A	1.866	ug/l	0.723	13 Sep 2011 15:16:36	TAC103 PB 95264	6099	Linear	SMPL	Hg	-
LCSSRM 580-95264/24-A 10X	4.161	ug/l	0.231	13 Sep 2011 15:18:21	TAC103 PB 95264	6100	Linear	SMPL	Hg	-
580-28356-A-6-B	1.679	ug/l	0.054	13 Sep 2011 15:20:07	TAC103 PB 95264	6101	Linear	SMPL	Hg	-
580-28356-A-6-C DU	1.481	ug/l	0.214	13 Sep 2011 15:21:58	TAC103 PB 95264	6102	Linear	SMPL	Hg	-
580-28356-A-6-D MS	3.628	ug/l	0.542	13 Sep 2011 15:23:40	TAC103 PB 95264	6103	Linear	SMPL	Hg	-
580-28356-A-6-E MSD	3.541	ug/l	0.306	13 Sep 2011 15:25:22	TAC103 PB 95264	6104	Linear	SMPL	Hg	-
580-28356-A-7-B	0.676	ug/l	0.251	13 Sep 2011 15:27:11	TAC103 PB 95264	6105	Linear	SMPL	Hg	-
580-28356-A-8-B	1.874	ug/l	1.041	13 Sep 2011 15:29:01	TAC103 PB 95264	6106	Linear	SMPL	Hg	-
CCV	4.911	ug/l	0.492	13 Sep 2011 15:30:41		6107	Linear	CK STND	Hg	-
CCB	-0.044	ug/l	-0.735	13 Sep 2011 15:32:23		6108	Linear	CK STND	Hg	-
580-28356-A-9-B	0.678	ug/l	0.856	13 Sep 2011 15:34:18	TAC103 PB 95264	6109	Linear	SMPL	Hg	-
580-28356-A-10-B	0.947	ug/l	0.051	13 Sep 2011 15:35:56	TAC103 PB 95264	6110	Linear	SMPL	Hg	-
580-28356-A-11-E	0.648	ug/l	0.799	13 Sep 2011 15:37:36	TAC103 PB 95264	6111	Linear	SMPL	Hg	-
580-28356-A-13-B	1.444	ug/l	0.142	13 Sep 2011 15:39:15	TAC103 PB 95264	6112	Linear	SMPL	Hg	-
580-28356-A-14-B	0.696	ug/l	0.546	13 Sep 2011 15:40:54	TAC103 PB 95264	6113	Linear	SMPL	Hg	-
580-28356-A-15-B	0.825	ug/l	0.577	13 Sep 2011 15:42:35	TAC103 PB 95264	6114	Linear	SMPL	Hg	-
580-28356-A-16-B	1.167	ug/l	0.851	13 Sep 2011 15:44:14	TAC103 PB 95264	6115	Linear	SMPL	Hg	-
580-28356-A-18-B	5.058	ug/l	0.719	13 Sep 2011 15:47:34	TAC103 PB 95264	6116	Linear	SMPL	Hg	-
CCV	4.798	ug/l	0.202	13 Sep 2011 15:51:28		6117	Linear	CK STND	Hg	-
CCB	-0.053	ug/l	-0.099	13 Sep 2011 15:53:32		6118	Linear	CK STND	Hg	-
580-28356-A-21-B	1.259	ug/l	0.369	13 Sep 2011 15:57:04	TAC103 PB 95264	6119	Linear	SMPL	Hg	-
580-28356-A-22-B	2.888	ug/l	0.141	13 Sep 2011 15:59:07	TAC103 PB 95264	6120	Linear	SMPL	Hg	-
580-28356-A-23-B	0.552	ug/l	0.328	13 Sep 2011 16:00:48	TAC103 PB 95264	6121	Linear	SMPL	Hg	-
CCV	4.780	ug/l	0.255	13 Sep 2011 16:02:35		6122	Linear	CK STND	Hg	-
CCB	-0.046	ug/l	-0.299	13 Sep 2011 16:04:14		6123	Linear	CK STND	Hg	-
580-28356-A-17-B	1.848	ug/l	0.283	13 Sep 2011 17:06:38	5X	6124	Linear	SMPL	Hg	-
580-28356-A-19-B	2.182	ug/l	0.029	13 Sep 2011 17:08:15	5X	6125	Linear	SMPL	Hg	-
580-28356-A-20-B	1.928	ug/l	0.043	13 Sep 2011 17:10:00	5X	6126	Linear	SMPL	Hg	-
CCV	4.838	ug/l	0.258	13 Sep 2011 17:11:47		6127	Linear	CK STND	Hg	-
CCB	-0.047	ug/l	-0.404	13 Sep 2011 17:13:34		6128	Linear	CK STND	Hg	-
MB 580-95295/21-A	0.006	ug/l	0.853	13 Sep 2011 17:27:57	TAC103 PB 95295	6129	Linear	SMPL	Hg	-
LCS 580-95295/22-A	1.914	ug/l	0.223	13 Sep 2011 17:29:33	TAC103 PB 95295	6130	Linear	SMPL	Hg	-
LCSD 580-95295/23-A	1.880	ug/l	0.247	13 Sep 2011 17:31:10	TAC103 PB 95295	6131	Linear	SMPL	Hg	-
LCSSRM 580-95295/24-A	3.715	ug/l	0.115	13 Sep 2011 17:32:54	TAC103 PB 95295 10X	6132	Linear	SMPL	Hg	-
580-28235-D-6-K	0.549	ug/l	0.132	13 Sep 2011 17:34:40	TAC103 PB 95295	6133	Linear	SMPL	Hg	-

091311-HG

Method: Hg Operator: Admin Date of Analysis: 13 Sep 2011 11:56:51

Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
580-28235-D-6-L DU	0.437	ug/l	0.209	13 Sep 2011 17:36:32	TAC103 PB 95295	6134	Linear	SMPL	Hg	-
580-28235-D-6-M MS	2.653	ug/l	0.244	13 Sep 2011 17:38:11	TAC103 PB 95295	6135	Linear	SMPL	Hg	-
580-28235-D-6-N MSD	2.522	ug/l	0.627	13 Sep 2011 17:39:50	TAC103 PB 95295	6136	Linear	SMPL	Hg	-
580-28235-D-7-D	0.172	ug/l	1.163	13 Sep 2011 17:41:36	TAC103 PB 95295	6137	Linear	SMPL	Hg	-
580-28235-D-8-E	0.220	ug/l	0.423	13 Sep 2011 17:43:22	TAC103 PB 95295	6138	Linear	SMPL	Hg	-
CCV	4.988	ug/l	0.087	13 Sep 2011 17:45:02		6139	Linear	CK STND	Hg	-
CCB	-0.049	ug/l	-0.381	13 Sep 2011 17:46:39		6140	Linear	CK STND	Hg	-
580-28235-B-1-C	0.119	ug/l	0.191	13 Sep 2011 17:48:32	TAC103 PB 95295	6141	Linear	SMPL	Hg	-
580-28235-B-3-C	0.090	ug/l	0.209	13 Sep 2011 17:50:10	TAC103 PB 95295	6142	Linear	SMPL	Hg	-
580-28235-B-4-C	0.205	ug/l	0.092	13 Sep 2011 17:51:49	TAC103 PB 95295	6143	Linear	SMPL	Hg	-
580-28235-B-5-C	0.085	ug/l	1.027	13 Sep 2011 17:53:27	TAC103 PB 95295	6144	Linear	SMPL	Hg	-
580-28235-A-20-D	0.187	ug/l	0.439	13 Sep 2011 17:55:05	TAC103 PB 95295	6145	Linear	SMPL	Hg	-
580-28235-A-21-D	0.362	ug/l	0.153	13 Sep 2011 17:56:43	TAC103 PB 95295	6146	Linear	SMPL	Hg	-
580-28269-A-11-C	0.231	ug/l	0.177	13 Sep 2011 17:58:21	TAC103 PB 95295	6147	Linear	SMPL	Hg	-
580-28269-A-12-C	0.254	ug/l	0.231	13 Sep 2011 18:00:00	TAC103 PB 95295	6148	Linear	SMPL	Hg	-
580-28269-A-13-C	0.180	ug/l	0.381	13 Sep 2011 18:01:39	TAC103 PB 95295	6149	Linear	SMPL	Hg	-
580-28269-A-14-C	0.253	ug/l	0.358	13 Sep 2011 18:03:18	TAC103 PB 95295	6150	Linear	SMPL	Hg	-
CCV	4.871	ug/l	0.563	13 Sep 2011 18:04:56		6151	Linear	CK STND	Hg	-
CCB	-0.041	ug/l	-0.660	13 Sep 2011 18:06:34		6152	Linear	CK STND	Hg	-
580-28269-A-15-C	0.247	ug/l	0.443	13 Sep 2011 18:08:29	TAC103 PB 95295	6153	Linear	SMPL	Hg	-
580-28427-A-1-A	2.427	ug/l	0.757	13 Sep 2011 18:11:46	TAC103 PB 95295	6154	Linear	SMPL	Hg	-
580-28403-C-1-A	< 0.000	ug/l	-0.093	13 Sep 2011 18:13:58	TAC103 PB 95295	6155	Linear	SMPL	Hg	-
CCV	4.904	ug/l	0.098	13 Sep 2011 18:15:50		6156	Linear	CK STND	Hg	-
CCB	-0.046	ug/l	-0.597	13 Sep 2011 18:17:27		6157	Linear	CK STND	Hg	-
580-28398-A-2-C 10X	1.743	ug/l	0.715	13 Sep 2011 18:34:10	TAC103 PB 95295	6158	Linear	SMPL	Hg	-
CCV	4.914	ug/l	0.104	13 Sep 2011 18:35:47		6159	Linear	CK STND	Hg	-
CCB	-0.037	ug/l	-0.246	13 Sep 2011 18:37:34		6160	Linear	CK STND	Hg	-

091511

Method: Hg Operator: Admin Date of Analysis: 15 Sep 2011 07:19:19

Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
STD 0	347	ug/l	0.623	15 Sep 2011 07:43:40		6396	-	Std	Hg	0.000
STD 1	2006	ug/l	0.244	15 Sep 2011 07:45:18		6397	-	Std	Hg	0.200
STD 2	4840	ug/l	0.382	15 Sep 2011 07:46:56		6398	-	Std	Hg	0.500
STD 3	18868	ug/l	0.397	15 Sep 2011 07:48:35		6399	-	Std	Hg	2.000
STD 4	48550	ug/l	0.019	15 Sep 2011 07:50:15		6400	-	Std	Hg	5.000
STD 5	96217	ug/l	0.344	15 Sep 2011 07:51:59		6401	-	Std	Hg	10.000

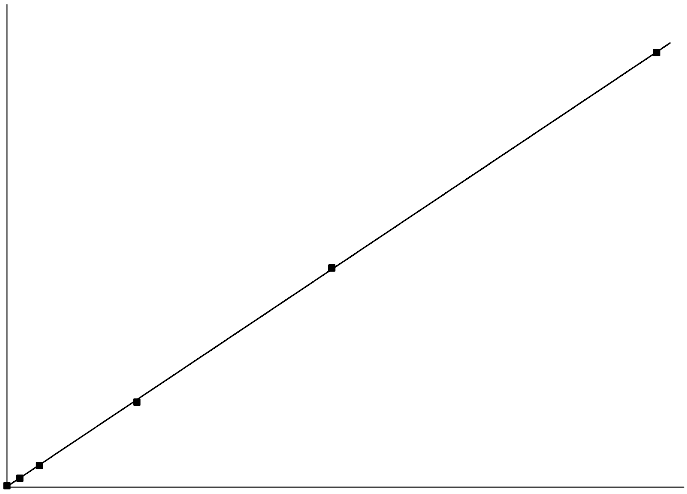
96217 µ Abs

A:0.0000e+000

B:1.0393e-004

C:-9.1336e-003

R:0.9999707



Conc 10.0000

ICV	3.887	ug/l	0.222	15 Sep 2011 07:53:53		6402	Linear	CK STND	Hg	-
ICB	-0.039	ug/l	-0.572	15 Sep 2011 07:55:52		6403	Linear	CK STND	Hg	-
RL	0.196	ug/l	0.369	15 Sep 2011 07:57:44		6404	Linear	CK STND	Hg	-
CCV	4.858	ug/l	0.263	15 Sep 2011 07:59:23		6405	Linear	CK STND	Hg	-
CCB	-0.038	ug/l	-0.644	15 Sep 2011 08:01:00		6406	Linear	CK STND	Hg	-
MB 580-95250/1-B	0.000	ug/l	26.156	15 Sep 2011 08:02:53	TAC103 FCW 95407	6407	Linear	SMPL	Hg	-
LCS 580-95407/9-A	1.893	ug/l	0.050	15 Sep 2011 08:04:30	TAC103 FCW 95407	6408	Linear	SMPL	Hg	-
LCSD 580-95407/10-A	1.874	ug/l	0.337	15 Sep 2011 08:06:07	TAC103 FCW 95407	6409	Linear	SMPL	Hg	-
580-28162-C-4-F	< 0.000	ug/l	-0.000	15 Sep 2011 08:07:53	TAC103 FCW 95407	6410	Linear	SMPL	Hg	-
580-28162-C-4-G DU	0.005	ug/l	4.693	15 Sep 2011 08:09:38	TAC103 FCW 95407	6411	Linear	SMPL	Hg	-
580-28162-C-4-H MS	1.895	ug/l	0.054	15 Sep 2011 08:11:15	TAC103 FCW 95407	6412	Linear	SMPL	Hg	-
580-28162-C-4-I MSD	1.848	ug/l	0.398	15 Sep 2011 08:12:52	TAC103 FCW 95407	6413	Linear	SMPL	Hg	-
580-28162-B-3-C	< 0.000	ug/l	-0.761	15 Sep 2011 08:14:38	TAC103 FCW 95407	6414	Linear	SMPL	Hg	-
580-28162-E-2-J	0.031	ug/l	0.830	15 Sep 2011 08:16:24	TAC103 FCW 95407	6415	Linear	SMPL	Hg	-
580-28333-B-4-F	0.005	ug/l	3.347	15 Sep 2011 08:18:02	TAC103 FCW 95407	6416	Linear	SMPL	Hg	-
CCV	4.837	ug/l	0.513	15 Sep 2011 08:19:40		6417	Linear	CK STND	Hg	-
CCB	-0.041	ug/l	-0.120	15 Sep 2011 08:21:16		6418	Linear	CK STND	Hg	-
MB 580-95403/18-A	< 0.000	ug/l	-6.874	15 Sep 2011 08:23:10	TAC103 FCW 95403	6419	Linear	SMPL	Hg	-
LCS 580-95403/19-A	1.924	ug/l	0.615	15 Sep 2011 08:24:48	TAC103 FCW 95403	6420	Linear	SMPL	Hg	-
LCSD 580-95403/20-A	1.897	ug/l	0.120	15 Sep 2011 08:26:26	TAC103 FCW 95403	6421	Linear	SMPL	Hg	-
580-28372-B-2-H	< 0.000	ug/l	-0.358	15 Sep 2011 08:28:11	TAC103 FCW 95403	6422	Linear	SMPL	Hg	-
580-28372-B-2-I DU	0.005	ug/l	1.053	15 Sep 2011 08:29:56	TAC103 FCW 95403	6423	Linear	SMPL	Hg	-
580-28372-B-2-J MS	1.855	ug/l	0.330	15 Sep 2011 08:31:33	TAC103 FCW 95403	6424	Linear	SMPL	Hg	-
580-28372-B-2-K MSD	1.879	ug/l	0.376	15 Sep 2011 08:33:10	TAC103 FCW 95403	6425	Linear	SMPL	Hg	-
580-28370-C-1-H	< 0.000	ug/l	-0.385	15 Sep 2011 08:34:56	TAC103 FCW 95403	6426	Linear	SMPL	Hg	-
580-28370-C-3-H	< 0.000	ug/l	-61.023	15 Sep 2011 08:36:40	TAC103 FCW 95403	6427	Linear	SMPL	Hg	-
580-28370-C-4-H	0.003	ug/l	4.051	15 Sep 2011 08:38:17	TAC103 FCW 95403	6428	Linear	SMPL	Hg	-
CCV	4.794	ug/l	0.074	15 Sep 2011 08:39:54		6429	Linear	CK STND	Hg	-
CCB	-0.039	ug/l	-0.250	15 Sep 2011 08:41:31		6430	Linear	CK STND	Hg	-
580-28370-C-5-H	0.000	ug/l	69.202	15 Sep 2011 08:43:25	TAC103 FCW 95403	6431	Linear	SMPL	Hg	-
580-28370-C-6-G	0.006	ug/l	3.320	15 Sep 2011 08:45:03	TAC103 FCW 95403	6432	Linear	SMPL	Hg	-
580-28370-C-7-G	0.007	ug/l	2.881	15 Sep 2011 08:46:41	TAC103 FCW 95403	6433	Linear	SMPL	Hg	-
580-28370-B-8-G	0.002	ug/l	17.257	15 Sep 2011 08:48:19	TAC103 FCW 95403	6434	Linear	SMPL	Hg	-
580-28372-C-1-G	0.009	ug/l	1.374	15 Sep 2011 08:49:57	TAC103 FCW 95403	6435	Linear	SMPL	Hg	-
580-28372-C-3-G	0.004	ug/l	3.083	15 Sep 2011 08:51:34	TAC103 FCW 95403	6436	Linear	SMPL	Hg	-
580-28372-B-4-G	0.007	ug/l	3.443	15 Sep 2011 08:53:11	TAC103 FCW 95403	6437	Linear	SMPL	Hg	-
580-28162-D-1-K	0.005	ug/l	1.015	15 Sep 2011 08:54:48	TAC103 FCW 95403	6438	Linear	SMPL	Hg	-
580-28333-A-2-H	0.007	ug/l	1.216	15 Sep 2011 08:56:25	TAC103 FCW 95403	6439	Linear	SMPL	Hg	-
580-28286-A-2-F	0.007	ug/l	3.649	15 Sep 2011 08:58:02	TAC103 FCW 95403	6440	Linear	SMPL	Hg	-
CCV	4.936	ug/l	0.365	15 Sep 2011 08:59:39		6441	Linear	CK STND	Hg	-
CCB	-0.042	ug/l	-0.505	15 Sep 2011 09:01:16		6442	Linear	CK STND	Hg	-
MB 580-95381/24-A	0.002	ug/l	4.846	15 Sep 2011 09:03:09	TAC103 FCW 95681	6443	Linear	SMPL	Hg	-
LCS 580-95381/25-A	1.964	ug/l	0.136	15 Sep 2011 09:04:46	TAC103 FCW 95681	6444	Linear	SMPL	Hg	-
LCSD 580-95381/26-A	1.898	ug/l	0.399	15 Sep 2011 09:06:23	TAC103 FCW 95681	6445	Linear	SMPL	Hg	-
580-28370-B-4-F	< 0.000	ug/l	-0.184	15 Sep 2011 09:08:09	TAC103 FCW 95681	6446	Linear	SMPL	Hg	-
580-28370-B-4-G DU	0.005	ug/l	0.934	15 Sep 2011 09:09:55	TAC103 FCW 95681	6447	Linear	SMPL	Hg	-
580-28370-B-4-H MS	1.965	ug/l	0.354	15 Sep 2011 09:11:33	TAC103 FCW 95681	6448	Linear	SMPL	Hg	-
580-28370-B-4-I MSD	1.871	ug/l	0.289	15 Sep 2011 09:13:12	TAC103 FCW 95681	6449	Linear	SMPL	Hg	-
580-28370-B-5-C	< 0.000	ug/l	-1.373	15 Sep 2011 09:14:56	TAC103 FCW 95681	6450	Linear	SMPL	Hg	-
580-28370-B-6-C	0.009	ug/l	3.417	15 Sep 2011 09:16:42	TAC103 FCW 95681	6451	Linear	SMPL	Hg	-
580-28370-B-7-C	0.010	ug/l	0.000	15 Sep 2011 09:18:19	TAC103 FCW 95681	6452	Linear	SMPL	Hg	-
CCV	4.599	ug/l	0.366	15 Sep 2011 09:19:56		6453	Linear	CK STND	Hg	-
CCB	-0.043	ug/l	-0.799	15 Sep 2011 09:21:33		6454	Linear	CK STND	Hg	-
580-28370-B-8-E	0.003	ug/l	2.465	15 Sep 2011 09:23:28	TAC103 FCW 95681	6455	Linear	SMPL	Hg	-
580-28162-D-1-I	0.011	ug/l	1.172	15 Sep 2011 09:25:05	TAC103 FCW 95681	6456	Linear	SMPL	Hg	-
580-28162-D-2-D	0.010	ug/l	1.681	15 Sep 2011 09:26:42	TAC103 FCW 95681	6457	Linear	SMPL	Hg	-
580-28162-C-3-H	0.006	ug/l	3.326	15 Sep 2011 09:28:19	TAC103 FCW 95681	6458	Linear	SMPL	Hg	-
580-28162-B-4-E	0.009	ug/l	2.341	15 Sep 2011 09:29:56	TAC103 FCW 95681	6459	Linear	SMPL	Hg	-
580-28496-A-1-E	0.009	ug/l	1.054	15 Sep 2011 09:31:34	TAC103 FCW 95681	6460	Linear	SMPL	Hg	-
580-28496-A-2-D	0.008	ug/l	1.032	15 Sep 2011 09:33:12	TAC103 FCW 95681	6461	Linear	SMPL	Hg	-
580-28496-A-3-D	0.011	ug/l	0.748	15 Sep 2011 09:34:50	TAC103 FCW 95681	6462	Linear	SMPL	Hg	-
580-28496-A-4-D	0.007	ug/l	5.400	15 Sep 2011 09:36:28	TAC103 FCW 95681	6463	Linear	SMPL	Hg	-
580-28140-B-9-E	0.008	ug/l	2.696	15 Sep 2011 09:38:05	TAC103 FCW 95681	6464	Linear	SMPL	Hg	-
CCV	4.683	ug/l	0.207	15 Sep 2011 09:39:42		6465	Linear	CK STND	Hg	-
CCB	-0.040	ug/l	-0.212	15 Sep 2011 09:41:19		6466	Linear	CK STND	Hg	-
580-28140-C-10-H	0.006	ug/l	2.236	15 Sep 2011 09:43:15	TAC103 FCW 95681	6467	Linear	SMPL	Hg	-
580-28140-C-11-H	0.008	ug/l	0.648	15 Sep 2011 09:44:52	TAC103 FCW 95681	6468	Linear	SMPL	Hg	-
580-28140-C-12-H	0.008	ug/l	4.802	15 Sep 2011 09:46:29	TAC103 FCW 95681	6469	Linear	SMPL	Hg	-
580-28140-B-13-F	0.009	ug/l	0.896	15 Sep 2011 09:48:06	TAC103 FCW 95681	6470	Linear	SMPL	Hg	-
MB 580-95381/22-A	0.008	ug/l	1.570	15 Sep 2011 09:49:43	TAC103 FCW 95681	6471	Linear	SMPL	Hg	-
580-28552-A-1-C	0.010	ug/l	1.692	15 Sep 2011 09:51:20	TAC103 FCW 95681	6472	Linear	SMPL	Hg	-
CCV	4.668	ug/l	0.162	15 Sep 2011 09:52:57		6473	Linear	CK STND	Hg	-
CCB	-0.039	ug/l	-0.916	15 Sep 2011 09:54:34		6474	Linear	CK STND	Hg	-
MB 580-95405/17-A	< 0.000	ug/l	-21.053	15 Sep 2011 09:56:29	TAC103 FCW 95405	6475	Linear	SMPL	Hg	-
LCS 580-95405/18-A	1.991	ug/l	0.082	15 Sep 2011 09:58:07	TAC103 FCW 95405	6476	Linear	SMPL	Hg	-
LCSD 580-95405/19-A	2.007	ug/l	0.313	15 Sep 2011 09:59:45	TAC103 FCW 95405	6477	Linear	SMPL	Hg	-
LCSSRM 580-95405/20-A	3.458	ug/l	0.306	15 Sep 2011 10:01:31	TAC103 FCW 95405	6478	Linear	SMPL	Hg	-
580-28313-A-1-K	0.185	ug/l	0.147	15 Sep 2011 10:03:16	TAC103 FCW 95405	6479	Linear	SMPL	Hg	-

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Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
580-28313-A-1-L DU	0.187	ug/l	0.172	15 Sep 2011 10:05:08	TAC103 FCW 95405	6480	Linear	SMPL	Hg	-
580-28313-A-1-M MS	2.395	ug/l	0.390	15 Sep 2011 10:06:46	TAC103 FCW 95405	6481	Linear	SMPL	Hg	-
580-28313-A-1-N MSD	2.228	ug/l	0.193	15 Sep 2011 10:08:25	TAC103 FCW 95405	6482	Linear	SMPL	Hg	-
580-28313-A-2-D	0.234	ug/l	0.072	15 Sep 2011 10:10:12	TAC103 FCW 95405	6483	Linear	SMPL	Hg	-
580-28313-A-3-D	0.130	ug/l	0.426	15 Sep 2011 10:11:59	TAC103 FCW 95405	6484	Linear	SMPL	Hg	-
CCV	4.592	ug/l	0.221	15 Sep 2011 10:13:38		6485	Linear	CK STND	Hg	-
CCB	-0.038	ug/l	-0.342	15 Sep 2011 10:15:16		6486	Linear	CK STND	Hg	-
580-28313-A-4-D	4.445	ug/l	0.497	15 Sep 2011 10:17:13	TAC103 FCW 95405	6487	Linear	SMPL	Hg	-
580-28313-A-5-D	5.072	ug/l	0.183	15 Sep 2011 10:18:51	TAC103 FCW 95405	6488	Linear	SMPL	Hg	-
580-28313-A-7-C	0.133	ug/l	0.160	15 Sep 2011 10:20:44	TAC103 FCW 95405	6489	Linear	SMPL	Hg	-
580-28313-A-8-C	0.206	ug/l	0.071	15 Sep 2011 10:22:39	TAC103 FCW 95405	6490	Linear	SMPL	Hg	-
580-28313-A-9-C	0.069	ug/l	0.286	15 Sep 2011 10:24:18	TAC103 FCW 95405	6491	Linear	SMPL	Hg	-
580-28313-A-10-C	0.324	ug/l	0.462	15 Sep 2011 10:25:58	TAC103 FCW 95405	6492	Linear	SMPL	Hg	-
580-28313-A-15-D	0.142	ug/l	0.332	15 Sep 2011 10:27:36	TAC103 FCW 95405	6493	Linear	SMPL	Hg	-
580-28313-A-16-D	0.553	ug/l	0.484	15 Sep 2011 10:29:15	TAC103 FCW 95405	6494	Linear	SMPL	Hg	-
580-28313-A-17-D	0.534	ug/l	0.703	15 Sep 2011 10:30:54	TAC103 FCW 95405	6495	Linear	SMPL	Hg	-
580-28313-A-18-D	1.301	ug/l	0.136	15 Sep 2011 10:32:34	TAC103 FCW 95405	6496	Linear	SMPL	Hg	-
CCV	4.504	ug/l	0.405	15 Sep 2011 10:34:14		6497	Linear	CK STND	Hg	-
CCB	-0.045	ug/l	-0.324	15 Sep 2011 10:35:54		6498	Linear	CK STND	Hg	-
CCV	4.768	ug/l	0.351	15 Sep 2011 12:17:01		6499	Linear	CK STND	Hg	-
CCB	-0.035	ug/l	-0.506	15 Sep 2011 12:18:38		6500	Linear	CK STND	Hg	-
MB 580-95412/12-A	0.002	ug/l	5.972	15 Sep 2011 12:20:35	TAC103 FCW 95412	6501	Linear	SMPL	Hg	-
LCS 580-95412/13-A	1.931	ug/l	0.529	15 Sep 2011 12:22:12	TAC103 FCW 95412	6502	Linear	SMPL	Hg	-
LCSD 580-95412/14-A	1.938	ug/l	0.171	15 Sep 2011 12:23:49	TAC103 FCW 95412	6503	Linear	SMPL	Hg	-
580-28594-F-1-B	< 0.000	ug/l	-0.619	15 Sep 2011 12:25:36	TAC103 FCW 95412	6504	Linear	SMPL	Hg	-
580-28594-F-1-C DU	0.015	ug/l	1.459	15 Sep 2011 12:27:21	TAC103 FCW 95412	6505	Linear	SMPL	Hg	-
580-28594-F-1-D MS	1.826	ug/l	0.018	15 Sep 2011 12:28:58	TAC103 FCW 95412	6506	Linear	SMPL	Hg	-
580-28594-F-1-E MSD	1.749	ug/l	0.498	15 Sep 2011 12:30:35	TAC103 FCW 95412	6507	Linear	SMPL	Hg	-
CCV	4.690	ug/l	0.434	15 Sep 2011 12:32:24		6508	Linear	CK STND	Hg	-
CCB	-0.038	ug/l	-0.587	15 Sep 2011 12:34:14		6509	Linear	CK STND	Hg	-
580-28549-D-2-B	0.042	ug/l	0.581	15 Sep 2011 12:36:12	TAC103 FCW 95412	6510	Linear	SMPL	Hg	-
580-28614-F-1-A	0.035	ug/l	0.246	15 Sep 2011 12:37:49	TAC103 FCW 95412	6511	Linear	SMPL	Hg	-
580-28614-F-2-A	0.063	ug/l	0.281	15 Sep 2011 12:39:29	TAC103 FCW 95412	6512	Linear	SMPL	Hg	-
580-28549-D-1-B	0.016	ug/l	1.100	15 Sep 2011 12:41:08	TAC103 FCW 95412	6513	Linear	SMPL	Hg	-
580-28595-D-1-B	< 0.000	ug/l	-4.616	15 Sep 2011 12:42:49	TAC103 FCW 95412	6514	Linear	SMPL	Hg	-
580-28596-D-1-B	0.005	ug/l	2.363	15 Sep 2011 12:44:29	TAC103 FCW 95412	6515	Linear	SMPL	Hg	-
580-28553-A-5-B	0.849	ug/l	0.167	15 Sep 2011 12:46:06	TAC103 FCW 95412	6516	Linear	SMPL	Hg	-
CCV	4.592	ug/l	0.540	15 Sep 2011 13:08:56		6517	Linear	CK STND	Hg	-
CCB	-0.043	ug/l	-0.341	15 Sep 2011 13:10:33		6518	Linear	CK STND	Hg	-
MB 580-95430/24-A	0.002	ug/l	4.199	15 Sep 2011 13:12:30	TAC103 FCW 95430	6519	Linear	SMPL	Hg	-
LCS 580-95430/25-A	1.866	ug/l	0.295	15 Sep 2011 13:14:07	TAC103 FCW 95430	6520	Linear	SMPL	Hg	-
LCSD 580-95430/26-A	1.901	ug/l	0.379	15 Sep 2011 13:15:44	TAC103 FCW 95430	6521	Linear	SMPL	Hg	-
580-28372-C-3-L	< 0.000	ug/l	-0.335	15 Sep 2011 13:17:29	TAC103 FCW 95430	6522	Linear	SMPL	Hg	-
580-28372-C-3-M DU	0.005	ug/l	3.659	15 Sep 2011 13:19:15	TAC103 FCW 95430	6523	Linear	SMPL	Hg	-
580-28372-C-3-N MS	1.991	ug/l	0.187	15 Sep 2011 13:20:52	TAC103 FCW 95430	6524	Linear	SMPL	Hg	-
580-28372-C-3-O MSD	1.868	ug/l	0.535	15 Sep 2011 13:22:29	TAC103 FCW 95430	6525	Linear	SMPL	Hg	-
580-28372-C-1-I	< 0.000	ug/l	-0.342	15 Sep 2011 13:24:15	TAC103 FCW 95430	6526	Linear	SMPL	Hg	-
580-28372-B-2-M	0.005	ug/l	3.739	15 Sep 2011 13:26:02	TAC103 FCW 95430	6527	Linear	SMPL	Hg	-
580-28372-B-4-I	0.040	ug/l	0.328	15 Sep 2011 13:27:40	TAC103 FCW 95430	6528	Linear	SMPL	Hg	-
CCV	4.602	ug/l	0.217	15 Sep 2011 13:29:18		6529	Linear	CK STND	Hg	-
CCB	-0.044	ug/l	-0.484	15 Sep 2011 13:30:55		6530	Linear	CK STND	Hg	-
580-28286-A-7-I	0.013	ug/l	2.048	15 Sep 2011 13:32:53	TAC103 FCW 95430	6531	Linear	SMPL	Hg	-
580-28286-B-8-F	0.005	ug/l	6.042	15 Sep 2011 13:34:31	TAC103 FCW 95430	6532	Linear	SMPL	Hg	-
580-28286-B-9-F	0.008	ug/l	5.033	15 Sep 2011 13:36:10	TAC103 FCW 95430	6533	Linear	SMPL	Hg	-
580-28224-B-1-H	0.009	ug/l	1.965	15 Sep 2011 13:37:47	TAC103 FCW 95430	6534	Linear	SMPL	Hg	-
580-28224-A-2-G	0.009	ug/l	0.533	15 Sep 2011 13:39:24	TAC103 FCW 95430	6535	Linear	SMPL	Hg	-
580-28224-A-3-F	0.008	ug/l	2.038	15 Sep 2011 13:41:01	TAC103 FCW 95430	6536	Linear	SMPL	Hg	-
580-28224-A-4-G	0.009	ug/l	0.558	15 Sep 2011 13:42:38	TAC103 FCW 95430	6537	Linear	SMPL	Hg	-
580-28224-B-11-D	0.006	ug/l	2.476	15 Sep 2011 13:44:15	TAC103 FCW 95430	6538	Linear	SMPL	Hg	-
580-28224-A-12-G	0.006	ug/l	1.526	15 Sep 2011 13:45:52	TAC103 FCW 95430	6539	Linear	SMPL	Hg	-
580-28370-B-1-C	0.009	ug/l	0.000	15 Sep 2011 13:47:29	TAC103 FCW 95430	6540	Linear	SMPL	Hg	-
CCV	4.507	ug/l	0.409	15 Sep 2011 13:49:06		6541	Linear	CK STND	Hg	-
CCB	-0.037	ug/l	-0.923	15 Sep 2011 13:50:43		6542	Linear	CK STND	Hg	-
580-28370-B-2-C	0.004	ug/l	5.667	15 Sep 2011 13:52:42	TAC103 FCW 95430	6543	Linear	SMPL	Hg	-
580-28370-C-3-J	0.004	ug/l	5.875	15 Sep 2011 13:54:20	TAC103 FCW 95430	6544	Linear	SMPL	Hg	-
580-28333-B-1-D	0.003	ug/l	6.941	15 Sep 2011 13:55:58	TAC103 FCW 95430	6545	Linear	SMPL	Hg	-
580-28333-B-2-D	0.008	ug/l	2.894	15 Sep 2011 13:57:36	TAC103 FCW 95430	6546	Linear	SMPL	Hg	-
580-28333-B-3-D	0.009	ug/l	0.994	15 Sep 2011 13:59:15	TAC103 FCW 95430	6547	Linear	SMPL	Hg	-
580-28333-B-4-H	0.011	ug/l	0.433	15 Sep 2011 14:00:52	TAC103 FCW 95430	6548	Linear	SMPL	Hg	-
CCV	4.493	ug/l	0.319	15 Sep 2011 14:02:29		6549	Linear	CK STND	Hg	-
CCB	-0.037	ug/l	-0.458	15 Sep 2011 14:04:06		6550	Linear	CK STND	Hg	-
CCV	4.505	ug/l	0.327	15 Sep 2011 15:52:43		6551	Linear	CK STND	Hg	-
CCB	-0.038	ug/l	-0.129	15 Sep 2011 15:54:19		6552	Linear	CK STND	Hg	-
MB 580-95460/6-A	0.008	ug/l	1.007	15 Sep 2011 15:56:17	TAC103 FCW 95460 10X	6553	Linear	SMPL	Hg	-
LCS 580-95460/7-A	0.942	ug/l	0.230	15 Sep 2011 15:57:53	TAC103 FCW 95460 10X	6554	Linear	SMPL	Hg	-
LCSD 580-95460/8-A	0.920	ug/l	0.023	15 Sep 2011 16:06:22	TAC103 FCW 95460 10X	6555	Linear	SMPL	Hg	-
LCSSRM 580-95460/9-A	3.243	ug/l	0.151	15 Sep 2011 16:07:59	TAC103 FCW 95460 10X	6556	Linear	SMPL	Hg	-
CCV	4.169	ug/l	0.147	15 Sep 2011 16:09:38		6557	Linear	CK STND	Hg	-
CCB	-0.043	ug/l	-0.303	15 Sep 2011 16:11:30		6558	Linear	CK STND	Hg	-
580-28356-A-12-J	5.035	ug/l	0.058	15 Sep 2011 16:13:27	TAC103 FCW 95460 10X	6559	Linear	SMPL	Hg	-
580-28356-A-12-K MS	5.863	ug/l	0.334	15 Sep 2011 16:15:04	TAC103 FCW 95460 10X	6560	Linear	SMPL	Hg	-
580-28356-A-12-L MSD	6.417	ug/l	0.025	15 Sep 2011 16:16:59	TAC103 FCW 95460 10X	6561	Linear	SMPL	Hg	-
580-28089-D-2-A	0.149	ug/l	0.431	15 Sep 2011 16:18:57	TAC103 FCW 95460 10X	6562	Linear	SMPL	Hg	-
580-28089-C-3-A	0.171	ug/l	0.348	15 Sep 2011 16:20:54	TAC103 FCW 95460 10X	6563	Linear	SMPL	Hg	-
CCV	4.851	ug/l	0.124	15 Sep 2011 16:22:34		6564	Linear	CK STND	Hg	-
CCB	-0.044	ug/l	-0.799	15 Sep 2011 16:24:11		6565	Linear	CK STND	Hg	-
MB 580-95440/22-A	0.004	ug/l	5.796	15 Sep 2011 16:26:10	TAC103 FCW 95440	6566	Linear	SMPL	Hg	-
LCS 580-95440/23-A	1.811	ug/l	0.349	15 Sep 2011 16:27:47	TAC103 FCW 95440	6567	Linear	SMPL	Hg	-
LCSD 580-95440/24-A	1.845	ug/l	0.029	15 Sep 2011 16:29:25	TAC103 FCW 95440	6568	Linear	SMPL	Hg	-
LCSSRM 580-95440/25-A	3.415	ug/l	0.534	15 Sep 2011 16:31:11	TAC103 FCW 95440	6569	Linear	SMPL	Hg	-
580-28278-D-14-K	0.399	ug/l	0.383	15 Sep 2011 16:32:57	TAC103 FCW 95440	6570	Linear	SMPL	Hg	-
580-28278-D-14-L DU	0.815	ug/l	0.347	15 Sep 2011 16:34:47	TAC103 FCW 95440	6571	Linear	SMPL	Hg	-
580-28278-D-14-M MS	2.863	ug/l	0.018	15 Sep 2011 16:36:27	TAC103 FCW 95440	6572	Linear	SMPL	Hg	-
580-28278-D-14-N MSD	3.248	ug/l	0.069	15 Sep 2011 16:38:07	TAC103 FCW 95440	6573	Linear	SMPL	Hg	-
580-28278-D-8-D	0.885	ug/l	0.322	15 Sep 2011 16:39:56	TAC103 FCW 95440	6574	Linear	SMPL	Hg	-
580-28278-D-9-D	0.895	ug/l	0.239	15 Sep 2011 16:41:45	TAC103 FCW 95440	6575	Linear	SMPL	Hg	-
CCV	4.920	ug/l	0.399	15 Sep 2011 16:43:25		6576	Linear	CK STND	Hg	-
CCB	-0.045	ug/l	-0.664	15 Sep 2011 16:45:05		6577	Linear	CK STND	Hg	-
580-28278-D-10-D	0.858	ug/l	0.162	15 Sep 2011 16:47:03	TAC103 FCW 95440	6578	Linear	SMPL	Hg	-
580-28278-D-11-D	1.022	ug/l	0.421	15 Sep 2011 16:48:40	TAC103 FCW 95440	6579	Linear	SMPL	Hg	-
580-28278-D-12-D	0.407	ug/l	0.420	15 Sep 2011 16:50:19	TAC103 FCW 95440	6580	Linear	SMPL	Hg	-
580-28278-D-13-D	0.315	ug/l	0.108	15 Sep 2011 16:51:59	TAC103 FCW 95440	6581	Linear	SMPL	Hg	-
580-28278-D-15-D	0.258	ug/l	0.544	15 Sep 2011 16:53:39	TAC103 FCW 95440	6582	Linear	SMPL	Hg	-
580-28278-D-16-D	0.134	ug/l	0.380	15 Sep 2011 16:55:18	TAC103 FCW 95440	6583	Linear	SMPL	Hg	-
580-28278-D-17-D	0.209	ug/l	0.208	15 Sep 2011 16:56:58	TAC103 FCW 95440	6584	Linear	SMPL	Hg	-
580-28278-D-18-D	0.179	ug/l	0.234	15 Sep 2011 16:58:37	TAC103 FCW 95440	6585	Linear	SMPL	Hg	-
580-28278-D-19-D	0.270	ug/l	0.364	15 Sep 2011 17:00:16	TAC103 FCW 95440	6586	Linear	SMPL	Hg	-
CCV	5.114	ug/l	0.152	15 Sep 2011 17:01:54		6587	Linear	CK STND	Hg	-
CCB	-0.044	ug/l	-0.514	15 Sep 2011 17:03:32		6588	Linear	CK STND	Hg	-
580-28334-A-3-G	0.235	ug/l	0.382	15 Sep 2011 17:05:30	TAC103 FCW 95440	6589	Linear	SMPL	Hg	-
580-28334-A-3-H MS	2.157	ug/l	0.218	15 Sep 2011 17:07:08	TAC103 FCW 95440	6590	Linear	SMPL	Hg	-
580-28334-A-3-I MSD	2.129	ug/l	0.276	15 Sep 2011 17:08:46	TAC103 FCW 95440	6591	Linear	SMPL	Hg	-
580-28334-A-1-C	0.367	ug/l	0.196	15 Sep 2011 17:10:33	TAC103 FCW 95440	6592	Linear	SMPL	Hg	-
580-28334-A-2-C	0.366	ug/l	0.337	15 Sep 2011 17:12:18	TAC103 FCW 95440	6593	Linear	SMPL	Hg	-
580-28334-A-4-C	0.177	ug/l	0.579	15 Sep 2011 17:13:58	TAC103 FCW 95440	6594	Linear	SMPL	Hg	-
CCV	5.214	ug/l	0.058	15 Sep 2011 17:15:37		6595	Linear	CK STND	Hg	-
CCB	-0.043	ug/l	-0.606	15 Sep 2011 17:17:15		6596	Linear	CK STND	Hg	-
MB 580-95464/18-A	0.002	ug/l	7.028	15 Sep 2011 17:19:12	TAC103 FCW 95464	6597	Linear	SMPL	Hg	-

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Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
LCS 580-95464/19-A	1.967	ug/l	0.152	15 Sep 2011 17:20:50	TAC103 FCW 95464	6598	Linear	SMPL	Hg	-
LCSD 580-95464/20-A	1.903	ug/l	0.531	15 Sep 2011 17:22:28	TAC103 FCW 95464	6599	Linear	SMPL	Hg	-
LCSSRM 580-95464/21-A	3.451	ug/l	0.256	15 Sep 2011 17:24:13	TAC103 FCW 95464 10X	6600	Linear	SMPL	Hg	-
580-28345-D-6-A	0.056	ug/l	0.548	15 Sep 2011 17:26:00	TAC103 FCW 95464	6601	Linear	SMPL	Hg	-
580-28345-D-6-B DU	0.091	ug/l	0.235	15 Sep 2011 17:27:52	TAC103 FCW 95464	6602	Linear	SMPL	Hg	-
580-28345-B-6-A MS	2.128	ug/l	0.296	15 Sep 2011 17:29:30	TAC103 FCW 95464	6603	Linear	SMPL	Hg	-
580-28345-D-6-C MSD	2.068	ug/l	0.125	15 Sep 2011 17:31:07	TAC103 FCW 95464	6604	Linear	SMPL	Hg	-
580-28345-D-1-A	0.134	ug/l	0.228	15 Sep 2011 17:32:53	TAC103 FCW 95464	6605	Linear	SMPL	Hg	-
580-28345-C-2-A	0.125	ug/l	0.104	15 Sep 2011 17:34:39	TAC103 FCW 95464	6606	Linear	SMPL	Hg	-
CCV	5.235	ug/l	0.481	15 Sep 2011 17:36:18		6607	Linear	CK STND	Hg	-
CCB	-0.041	ug/l	-0.319	15 Sep 2011 17:37:56		6608	Linear	CK STND	Hg	-
RL	0.206	ug/l	0.063	15 Sep 2011 17:39:54		6609	Linear	CK STND	Hg	-
580-28345-C-3-A	0.079	ug/l	0.163	15 Sep 2011 17:41:33	TAC103 FCW 95464	6610	Linear	SMPL	Hg	-
580-28345-C-4-A	0.056	ug/l	0.315	15 Sep 2011 17:43:11	TAC103 FCW 95464	6611	Linear	SMPL	Hg	-
580-28345-C-5-A	0.076	ug/l	0.485	15 Sep 2011 17:44:48	TAC103 FCW 95464	6612	Linear	SMPL	Hg	-
580-28345-C-7-A	0.269	ug/l	0.157	15 Sep 2011 17:46:26	TAC103 FCW 95464	6613	Linear	SMPL	Hg	-
580-28470-A-3-A	7.367	ug/l	0.366	15 Sep 2011 17:48:04	TAC103 FCW 95464	6614	Linear	SMPL	Hg	-
580-28470-A-1-A	4.452	ug/l	0.623	15 Sep 2011 17:49:44	TAC103 FCW 95464	6615	Linear	SMPL	Hg	-
580-28470-A-2-A	5.187	ug/l	0.784	15 Sep 2011 17:51:36	TAC103 FCW 95464	6616	Linear	SMPL	Hg	-
580-28345-D-9-A	0.122	ug/l	0.213	15 Sep 2011 17:53:28	TAC103 FCW 95464	6617	Linear	SMPL	Hg	-
580-28345-C-10-A	0.363	ug/l	0.062	15 Sep 2011 17:55:22	TAC103 FCW 95464	6618	Linear	SMPL	Hg	-
580-28345-D-8-A	0.171	ug/l	0.398	15 Sep 2011 17:57:00	TAC103 FCW 95464	6619	Linear	SMPL	Hg	-
CCV	5.154	ug/l	0.695	15 Sep 2011 17:58:40		6620	Linear	CK STND	Hg	-
CCB	-0.048	ug/l	-0.704	15 Sep 2011 18:00:18		6621	Linear	CK STND	Hg	-
580-28617-A-2-A	0.027	ug/l	1.761	15 Sep 2011 18:02:15	TAC103 FCW 95464	6622	Linear	SMPL	Hg	-
CCV	5.181	ug/l	0.357	15 Sep 2011 18:03:52		6623	Linear	CK STND	Hg	-
CCB	-0.038	ug/l	-0.899	15 Sep 2011 18:05:29		6624	Linear	CK STND	Hg	-
MB 580-95469/18-A	0.005	ug/l	2.030	15 Sep 2011 18:07:28	TAC103 FCW 95469	6625	Linear	SMPL	Hg	-
LCS 580-95469/19-A	1.956	ug/l	0.375	15 Sep 2011 18:09:06	TAC103 FCW 95469	6626	Linear	SMPL	Hg	-
LCSD 580-95469/20-A	1.903	ug/l	0.798	15 Sep 2011 18:10:43	TAC103 FCW 95469	6627	Linear	SMPL	Hg	-
580-28492-B-1-I	4.086	ug/l	0.631	15 Sep 2011 18:12:30	TAC103 FCW 95469	6628	Linear	SMPL	Hg	-
580-28492-B-1-J DU	3.841	ug/l	0.266	15 Sep 2011 18:14:17	TAC103 FCW 95469	6629	Linear	SMPL	Hg	-
580-28492-B-1-K MS	5.588	ug/l	0.434	15 Sep 2011 18:16:07	TAC103 FCW 95469	6630	Linear	SMPL	Hg	-
580-28492-B-1-L MSD	6.077	ug/l	0.188	15 Sep 2011 18:17:57	TAC103 FCW 95469	6631	Linear	SMPL	Hg	-
580-28492-B-2-C	5.750	ug/l	0.544	15 Sep 2011 18:19:52	TAC103 FCW 95469	6632	Linear	SMPL	Hg	-
580-28496-B-1-A	2.083	ug/l	0.316	15 Sep 2011 18:21:49	TAC103 FCW 95469	6633	Linear	SMPL	Hg	-
580-28496-B-2-B	2.332	ug/l	0.224	15 Sep 2011 18:23:42	TAC103 FCW 95469	6634	Linear	SMPL	Hg	-
CCV	5.167	ug/l	0.920	15 Sep 2011 18:25:27		6635	Linear	CK STND	Hg	-
CCB	-0.047	ug/l	-0.358	15 Sep 2011 18:27:12		6636	Linear	CK STND	Hg	-
580-28496-B-3-B	0.439	ug/l	0.295	15 Sep 2011 18:29:10	TAC103 FCW 95469	6637	Linear	SMPL	Hg	-
580-28496-B-4-B	0.325	ug/l	0.392	15 Sep 2011 18:30:48	TAC103 FCW 95469	6638	Linear	SMPL	Hg	-
580-28496-A-5-C	0.482	ug/l	0.164	15 Sep 2011 18:32:28	TAC103 FCW 95469	6639	Linear	SMPL	Hg	-
580-28496-A-6-B	1.437	ug/l	0.075	15 Sep 2011 18:34:08	TAC103 FCW 95469	6640	Linear	SMPL	Hg	-
580-28496-A-7-B	0.131	ug/l	0.187	15 Sep 2011 18:35:48	TAC103 FCW 95469	6641	Linear	SMPL	Hg	-
580-28496-A-8-B	0.151	ug/l	0.701	15 Sep 2011 18:37:33	TAC103 FCW 95469	6642	Linear	SMPL	Hg	-
580-28496-A-9-C	3.627	ug/l	0.386	15 Sep 2011 18:39:12	TAC103 FCW 95469	6643	Linear	SMPL	Hg	-
580-28511-B-1-A	0.316	ug/l	0.887	15 Sep 2011 18:40:51	TAC103 FCW 95469	6644	Linear	SMPL	Hg	-
580-28511-A-2-C	0.541	ug/l	0.672	15 Sep 2011 18:42:44	TAC103 FCW 95469	6645	Linear	SMPL	Hg	-
580-28545-A-2-A	2.276	ug/l	0.356	15 Sep 2011 18:44:25	TAC103 FCW 95469	6646	Linear	SMPL	Hg	-
CCV	5.071	ug/l	0.271	15 Sep 2011 18:46:05		6647	Linear	CK STND	Hg	-
CCB	-0.045	ug/l	-0.475	15 Sep 2011 18:47:54		6648	Linear	CK STND	Hg	-
RL	0.202	ug/l	0.594	15 Sep 2011 18:49:52		6649	Linear	CK STND	Hg	-

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95113 Batch Start Date: 09/12/11 08:45 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/12/11 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28356-B-1	W-12	3050B, 6010B	T	1.1006 g	50 mL				
580-28356-B-1 DU	W-12	3050B, 6010B	T	1.0219 g	50 mL				
580-28356-B-1 MS	W-12	3050B, 6010B	T	1.0513 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28356-B-1 MSD	W-12	3050B, 6010B	T	1.0143 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28356-A-2	W-10	3050B, 6010B	T	1.0265 g	50 mL				
580-28356-A-3	W-9	3050B, 6010B	T	1.0561 g	50 mL				
580-28356-A-4	W-13	3050B, 6010B	T	1.1543 g	50 mL				
580-28356-A-5	W-15	3050B, 6010B	T	1.1184 g	50 mL				
580-28356-A-6	W-14	3050B, 6010B	T	1.1103 g	50 mL				
580-28356-A-7	G-1	3050B, 6010B	T	1.0731 g	50 mL				
580-28356-A-8	G-2	3050B, 6010B	T	1.1750 g	50 mL				
580-28356-A-9	G-3	3050B, 6010B	T	1.1122 g	50 mL				
580-28356-A-10	G-4	3050B, 6010B	T	1.0181 g	50 mL				
MB 580-95113/21		3050B, 6010B		1.0 g	50 mL				
LCS 580-95113/22		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-95113/23		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-95113/24		3050B, 6010B		0.5024 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-B-1	W-12	3050B, 6010B	T						
580-28356-B-1 DU	W-12	3050B, 6010B	T						
580-28356-B-1 MS	W-12	3050B, 6010B	T	1 mL					
580-28356-B-1 MSD	W-12	3050B, 6010B	T	1 mL					
580-28356-A-2	W-10	3050B, 6010B	T						
580-28356-A-3	W-9	3050B, 6010B	T						
580-28356-A-4	W-13	3050B, 6010B	T						
580-28356-A-5	W-15	3050B, 6010B	T						
580-28356-A-6	W-14	3050B, 6010B	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95113 Batch Start Date: 09/12/11 08:45 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/12/11 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-A-7	G-1	3050B, 6010B	T						
580-28356-A-8	G-2	3050B, 6010B	T						
580-28356-A-9	G-3	3050B, 6010B	T						
580-28356-A-10	G-4	3050B, 6010B	T						
MB 580-95113/21		3050B, 6010B							
LCS 580-95113/22		3050B, 6010B		1 mL					
LCSD 580-95113/23		3050B, 6010B		1 mL					
LCSSRM 580-95113/24		3050B, 6010B			0.5024 g				

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	769835
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38008
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95118 Batch Start Date: 09/12/11 09:00 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/12/11 11:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28356-A-11	G-5	3050B, 6010B	T	1.1378 g	50 mL				
580-28356-A-11 DU	G-5	3050B, 6010B	T	1.1270 g	50 mL				
580-28356-A-11 MS	G-5	3050B, 6010B	T	1.0764 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28356-A-11 MSD	G-5	3050B, 6010B	T	1.1495 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28356-A-13	Potomac 2 (0-6)	3050B, 6010B	T	1.0643 g	50 mL				
580-28356-A-14	Potomac 2 (6-12)	3050B, 6010B	T	1.0361 g	50 mL				
580-28356-A-15	Potomac 3 (0-6)	3050B, 6010B	T	1.2000 g	50 mL				
580-28356-A-16	Potomac 3 (6-12)	3050B, 6010B	T	1.0606 g	50 mL				
580-28356-A-17	IXL 1 (0-6)	3050B, 6010B	T	1.1931 g	50 mL				
580-28356-A-18	IXL 1 (6-12)	3050B, 6010B	T	1.0245 g	50 mL				
580-28356-A-19	IXL 2 (0-6)	3050B, 6010B	T	1.0610 g	50 mL				
580-28356-A-20	IXL 2 (6-12)	3050B, 6010B	T	1.1826 g	50 mL				
580-28356-A-21	W-8	3050B, 6010B	T	1.0381 g	50 mL				
580-28356-A-22	W-16	3050B, 6010B	T	1.1293 g	50 mL				
580-28356-A-23	W-11	3050B, 6010B	T	1.0109 g	50 mL				
MB 580-95118/16		3050B, 6010B		1.0 g	50 mL				
LCS 580-95118/17		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-95118/18		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-95118/19		3050B, 6010B		0.5025 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-A-11	G-5	3050B, 6010B	T						
580-28356-A-11 DU	G-5	3050B, 6010B	T						
580-28356-A-11 MS	G-5	3050B, 6010B	T	1 mL					
580-28356-A-11 MSD	G-5	3050B, 6010B	T	1 mL					
580-28356-A-13	Potomac 2 (0-6)	3050B, 6010B	T						
580-28356-A-14	Potomac 2 (6-12)	3050B, 6010B	T						
580-28356-A-15	Potomac 3 (0-6)	3050B, 6010B	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95118 Batch Start Date: 09/12/11 09:00 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/12/11 11:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-A-16	Potomac 3 (6-12)	3050B, 6010B	T						
580-28356-A-17	IXL 1 (0-6)	3050B, 6010B	T						
580-28356-A-18	IXL 1 (6-12)	3050B, 6010B	T						
580-28356-A-19	IXL 2 (0-6)	3050B, 6010B	T						
580-28356-A-20	IXL 2 (6-12)	3050B, 6010B	T						
580-28356-A-21	W-8	3050B, 6010B	T						
580-28356-A-22	W-16	3050B, 6010B	T						
580-28356-A-23	W-11	3050B, 6010B	T						
MB 580-95118/16		3050B, 6010B							
LCS 580-95118/17		3050B, 6010B		1 mL					
LCSD 580-95118/18		3050B, 6010B		1 mL					
LCSSRM 580-95118/19		3050B, 6010B			0.5025 g				

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	769835
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38008
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95365 Batch Start Date: 09/12/11 11:15 Batch Analyst: Palmquist, Stan

Batch Method: Increm, Prep Batch End Date: 09/14/11 13:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
580-28356-A-12	Potomac 1	Increm, Prep, 3050B, 6010B	T	10.0661 g					
580-28356-A-12 MS	Potomac 1	Increm, Prep, 3050B, 6010B	T	10.0208 g					
580-28356-A-12 MSD	Potomac 1	Increm, Prep, 3050B, 6010B	T	10.0913 g					

Batch Notes	
Analyst	SPP
Date and Time laid out to Dry	09/12/2011 10:15
Date and Time When Seived	09/14/2011 11:10
Mesh Size of Seive	2mm

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95447 Batch Start Date: 09/15/11 13:11 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 09/15/11 14:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28356-A-12-A	Potomac 1	3050B, 6010B	T	10.0625 g	100 mL				
580-28356-A-12-B MS	Potomac 1	3050B, 6010B	T	9.9949 g	100 mL	2 mL	2 mL	2 mL	2 mL
580-28356-A-12-C MSD	Potomac 1	3050B, 6010B	T	10.0803 g	100 mL	2 mL	2 mL	2 mL	2 mL
MB 580-95447/18		3050B, 6010B		2.0 g	100 mL				
LCS 580-95447/19		3050B, 6010B		2.0 g	100 mL	2 mL	2 mL	2 mL	2 mL
LCSD 580-95447/20		3050B, 6010B		2.0 g	100 mL	2 mL	2 mL	2 mL	2 mL
LCSSRM 580-95447/21		3050B, 6010B		1.0096 g	100 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-A-12-A	Potomac 1	3050B, 6010B	T						
580-28356-A-12-B MS	Potomac 1	3050B, 6010B	T	2 mL					
580-28356-A-12-C MSD	Potomac 1	3050B, 6010B	T	2 mL					
MB 580-95447/18		3050B, 6010B							
LCS 580-95447/19		3050B, 6010B		2 mL					
LCSD 580-95447/20		3050B, 6010B		2 mL					
LCSSRM 580-95447/21		3050B, 6010B			1.0096 g				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95447 Batch Start Date: 09/15/11 13:11 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 09/15/11 14:45

Batch Notes	
Balance ID	SEA204
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	769835
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	30667
Pipette ID	20051014
Temperature	93.5 Degrees C
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	062711
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95113 Batch Start Date: 09/12/11 08:45 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/12/11 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28356-B-1	W-12	3050B, 6020	T	1.1006 g	50 mL				
580-28356-B-1 DU	W-12	3050B, 6020	T	1.0219 g	50 mL				
580-28356-B-1 MS	W-12	3050B, 6020	T	1.0513 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28356-B-1 MSD	W-12	3050B, 6020	T	1.0143 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28356-A-2	W-10	3050B, 6020	T	1.0265 g	50 mL				
580-28356-A-3	W-9	3050B, 6020	T	1.0561 g	50 mL				
580-28356-A-4	W-13	3050B, 6020	T	1.1543 g	50 mL				
580-28356-A-5	W-15	3050B, 6020	T	1.1184 g	50 mL				
580-28356-A-6	W-14	3050B, 6020	T	1.1103 g	50 mL				
580-28356-A-7	G-1	3050B, 6020	T	1.0731 g	50 mL				
580-28356-A-8	G-2	3050B, 6020	T	1.1750 g	50 mL				
580-28356-A-9	G-3	3050B, 6020	T	1.1122 g	50 mL				
580-28356-A-10	G-4	3050B, 6020	T	1.0181 g	50 mL				
MB 580-95113/21		3050B, 6020		1.0 g	50 mL				
LCS 580-95113/22		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-95113/23		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-95113/24		3050B, 6020		0.5024 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-B-1	W-12	3050B, 6020	T						
580-28356-B-1 DU	W-12	3050B, 6020	T						
580-28356-B-1 MS	W-12	3050B, 6020	T	1 mL					
580-28356-B-1 MSD	W-12	3050B, 6020	T	1 mL					
580-28356-A-2	W-10	3050B, 6020	T						
580-28356-A-3	W-9	3050B, 6020	T						
580-28356-A-4	W-13	3050B, 6020	T						
580-28356-A-5	W-15	3050B, 6020	T						
580-28356-A-6	W-14	3050B, 6020	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95113 Batch Start Date: 09/12/11 08:45 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/12/11 11:00

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-A-7	G-1	3050B, 6020	T						
580-28356-A-8	G-2	3050B, 6020	T						
580-28356-A-9	G-3	3050B, 6020	T						
580-28356-A-10	G-4	3050B, 6020	T						
MB 580-95113/21		3050B, 6020							
LCS 580-95113/22		3050B, 6020		1 mL					
LCSD 580-95113/23		3050B, 6020		1 mL					
LCSSRM 580-95113/24		3050B, 6020			0.5024 g				

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	769835
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38008
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95118 Batch Start Date: 09/12/11 09:00 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/12/11 11:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28356-A-11	G-5	3050B, 6020	T	1.1378 g	50 mL				
580-28356-A-11 DU	G-5	3050B, 6020	T	1.1270 g	50 mL				
580-28356-A-11 MS	G-5	3050B, 6020	T	1.0764 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28356-A-11 MSD	G-5	3050B, 6020	T	1.1495 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28356-A-13	Potomac 2 (0-6)	3050B, 6020	T	1.0643 g	50 mL				
580-28356-A-14	Potomac 2 (6-12)	3050B, 6020	T	1.0361 g	50 mL				
580-28356-A-15	Potomac 3 (0-6)	3050B, 6020	T	1.2000 g	50 mL				
580-28356-A-16	Potomac 3 (6-12)	3050B, 6020	T	1.0606 g	50 mL				
580-28356-A-17	IXL 1 (0-6)	3050B, 6020	T	1.1931 g	50 mL				
580-28356-A-18	IXL 1 (6-12)	3050B, 6020	T	1.0245 g	50 mL				
580-28356-A-19	IXL 2 (0-6)	3050B, 6020	T	1.0610 g	50 mL				
580-28356-A-20	IXL 2 (6-12)	3050B, 6020	T	1.1826 g	50 mL				
580-28356-A-21	W-8	3050B, 6020	T	1.0381 g	50 mL				
580-28356-A-22	W-16	3050B, 6020	T	1.1293 g	50 mL				
580-28356-A-23	W-11	3050B, 6020	T	1.0109 g	50 mL				
MB 580-95118/16		3050B, 6020		1.0 g	50 mL				
LCS 580-95118/17		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-95118/18		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-95118/19		3050B, 6020		0.5025 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-A-11	G-5	3050B, 6020	T						
580-28356-A-11 DU	G-5	3050B, 6020	T						
580-28356-A-11 MS	G-5	3050B, 6020	T	1 mL					
580-28356-A-11 MSD	G-5	3050B, 6020	T	1 mL					
580-28356-A-13	Potomac 2 (0-6)	3050B, 6020	T						
580-28356-A-14	Potomac 2 (6-12)	3050B, 6020	T						
580-28356-A-15	Potomac 3 (0-6)	3050B, 6020	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95118 Batch Start Date: 09/12/11 09:00 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/12/11 11:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-A-16	Potomac 3 (6-12)	3050B, 6020	T						
580-28356-A-17	IXL 1 (0-6)	3050B, 6020	T						
580-28356-A-18	IXL 1 (6-12)	3050B, 6020	T						
580-28356-A-19	IXL 2 (0-6)	3050B, 6020	T						
580-28356-A-20	IXL 2 (6-12)	3050B, 6020	T						
580-28356-A-21	W-8	3050B, 6020	T						
580-28356-A-22	W-16	3050B, 6020	T						
580-28356-A-23	W-11	3050B, 6020	T						
MB 580-95118/16		3050B, 6020							
LCS 580-95118/17		3050B, 6020		1 mL					
LCSD 580-95118/18		3050B, 6020		1 mL					
LCSSRM 580-95118/19		3050B, 6020			0.5025 g				

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	769835
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38008
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95365 Batch Start Date: 09/12/11 11:15 Batch Analyst: Palmquist, Stan

Batch Method: Increm, Prep Batch End Date: 09/14/11 13:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
580-28356-A-12	Potomac 1	Increm, Prep, 3050B, 6020	T	10.0661 g					
580-28356-A-12 MS	Potomac 1	Increm, Prep, 3050B, 6020	T	10.0208 g					
580-28356-A-12 MSD	Potomac 1	Increm, Prep, 3050B, 6020	T	10.0913 g					

Batch Notes	
Analyst	SPP
Date and Time laid out to Dry	09/12/2011 10:15
Date and Time When Seived	09/14/2011 11:10
Mesh Size of Seive	2mm

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95447 Batch Start Date: 09/15/11 13:11 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 09/15/11 14:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28356-A-12-A	Potomac 1	3050B, 6020	T	10.0625 g	100 mL				
580-28356-A-12-B MS	Potomac 1	3050B, 6020	T	9.9949 g	100 mL	2 mL	2 mL	2 mL	2 mL
580-28356-A-12-C MSD	Potomac 1	3050B, 6020	T	10.0803 g	100 mL	2 mL	2 mL	2 mL	2 mL
MB 580-95447/18		3050B, 6020		2.0 g	100 mL				
LCS 580-95447/19		3050B, 6020		2.0 g	100 mL	2 mL	2 mL	2 mL	2 mL
LCSD 580-95447/20		3050B, 6020		2.0 g	100 mL	2 mL	2 mL	2 mL	2 mL
LCSSRM 580-95447/21		3050B, 6020		1.0096 g	100 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28356-A-12-A	Potomac 1	3050B, 6020	T						
580-28356-A-12-B MS	Potomac 1	3050B, 6020	T	2 mL					
580-28356-A-12-C MSD	Potomac 1	3050B, 6020	T	2 mL					
MB 580-95447/18		3050B, 6020							
LCS 580-95447/19		3050B, 6020		2 mL					
LCSD 580-95447/20		3050B, 6020		2 mL					
LCSSRM 580-95447/21		3050B, 6020			1.0096 g				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95447 Batch Start Date: 09/15/11 13:11 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 09/15/11 14:45

Batch Notes	
Balance ID	SEA204
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	769835
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	30667
Pipette ID	20051014
Temperature	93.5 Degrees C
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	062711
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95102 Batch Start Date: 09/12/11 11:40 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/12/11 12:35

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_CAL_WORK 00008	SRMsolid 00006		
580-28356-B-1	W-12	7471A, 7471A	T	0.6882 g	50 mL				
580-28356-B-1 DU	W-12	7471A, 7471A	T	0.6793 g	50 mL				
580-28356-B-1 MS	W-12	7471A, 7471A	T	0.6105 g	50 mL	1 mL			
580-28356-B-1 MSD	W-12	7471A, 7471A	T	0.7151 g	50 mL	1 mL			
580-28356-A-2	W-10	7471A, 7471A	T	0.6326 g	50 mL				
580-28356-A-3	W-9	7471A, 7471A	T	0.6087 g	50 mL				
580-28356-A-4	W-13	7471A, 7471A	T	0.8186 g	50 mL				
580-28356-A-5	W-15	7471A, 7471A	T	0.9619 g	50 mL				
MB 580-95102/17		7471A, 7471A		0.6 g	50 mL				
LCS 580-95102/18		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSD 580-95102/19		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSSRM 580-95102/20		7471A, 7471A		0.0997 g	50 mL		0.0997 g		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95102 Batch Start Date: 09/12/11 11:40 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/12/11 12:35

Batch Notes	
Hydroxylamine Hydrochloride Lot	790508
Balance ID	SEA220
Sulfuric Acid Lot Number	709195
Lot # of hydrochloric acid	769835
Lot # of Nitric Acid	744520
Hood ID or number	06
Hot Block ID number	38010
Potassium Persulfate Lot Number	782098
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP
Pipette ID	20051014
Stannous Chloride Lot Number	790550
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95264 Batch Start Date: 09/13/11 13:05 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/13/11 13:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_CAL_WORK 00008	SRMsolid 00006		
580-28356-A-6	W-14	7471A, 7471A	T	0.7072 g	50 mL				
580-28356-A-6 DU	W-14	7471A, 7471A	T	0.6715 g	50 mL				
580-28356-A-6 MS	W-14	7471A, 7471A	T	0.6709 g	50 mL	1 mL			
580-28356-A-6 MSD	W-14	7471A, 7471A	T	0.6469 g	50 mL	1 mL			
580-28356-A-7	G-1	7471A, 7471A	T	0.8442 g	50 mL				
580-28356-A-8	G-2	7471A, 7471A	T	0.6816 g	50 mL				
580-28356-A-9	G-3	7471A, 7471A	T	0.6657 g	50 mL				
580-28356-A-10	G-4	7471A, 7471A	T	0.6032 g	50 mL				
580-28356-A-11	G-5	7471A, 7471A	T	0.6319 g	50 mL				
580-28356-A-13	Potomac 2 (0-6)	7471A, 7471A	T	0.6176 g	50 mL				
580-28356-A-14	Potomac 2 (6-12)	7471A, 7471A	T	0.6034 g	50 mL				
580-28356-A-15	Potomac 3 (0-6)	7471A, 7471A	T	0.6466 g	50 mL				
580-28356-A-16	Potomac 3 (6-12)	7471A, 7471A	T	0.7305 g	50 mL				
580-28356-A-17	IXL 1 (0-6)	7471A, 7471A	T	0.7191 g	50 mL				
580-28356-A-18	IXL 1 (6-12)	7471A, 7471A	T	0.7447 g	50 mL				
580-28356-A-19	IXL 2 (0-6)	7471A, 7471A	T	0.6097 g	50 mL				
580-28356-A-20	IXL 2 (6-12)	7471A, 7471A	T	0.6111 g	50 mL				
580-28356-A-21	W-8	7471A, 7471A	T	0.7784 g	50 mL				
580-28356-A-22	W-16	7471A, 7471A	T	0.6814 g	50 mL				
580-28356-A-23	W-11	7471A, 7471A	T	0.6155 g	50 mL				
MB 580-95264/21		7471A, 7471A		0.6 g	50 mL				
LCS 580-95264/22		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSD 580-95264/23		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSSRM 580-95264/24		7471A, 7471A		0.1035 g	50 mL		0.1035 g		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95264 Batch Start Date: 09/13/11 13:05 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/13/11 13:45

Batch Notes	
Hydroxylamine Hydrochloride Lot	790508
Balance ID	SEA204
Lot # of hydrochloric acid	769835
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Potassium Persulfate Lot Number	782098
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	92.5 CORRECTED-TEMP
Pipette ID	20051014
Stannous Chloride Lot Number	790550
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	94 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95367 Batch Start Date: 09/12/11 10:15 Batch Analyst: Palmquist, Stan

Batch Method: Increm, Prep Batch End Date: 09/14/11 13:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	FinalAmount					
580-28356-A-12	Potomac 1	Increm, Prep, 7471A, 7471A	T	5.0590 g					
580-28356-A-12 MS	Potomac 1	Increm, Prep, 7471A, 7471A	T	5.0317 g					
580-28356-A-12 MSD	Potomac 1	Increm, Prep, 7471A, 7471A	T	4.9996 g					

Batch Notes	
Analyst	SPP
Date and Time laid out to Dry	09/12/2011 10:15
Initials for Label Check	09/14/2011 11:10
Mesh Size of Seive	2mm

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95460 Batch Start Date: 09/15/11 14:25 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/15/11 15:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_CAL_WORK 00008	SRMsolid 00006		
580-28356-A-12-D	Potomac 1	7471A, 7471A	T	5.0378 g	50 mL				
580-28356-A-12-E MS	Potomac 1	7471A, 7471A	T	5.0171 g	50 mL	5 mL			
580-28356-A-12-F MSD	Potomac 1	7471A, 7471A	T	4.9913 g	50 mL	5 mL			
MB 580-95460/6		7471A, 7471A		5 g	50 mL				
LCS 580-95460/7		7471A, 7471A		5 g	50 mL	5 mL			
LCSD 580-95460/8		7471A, 7471A		5 g	50 mL	5 mL			
LCSSRM 580-95460/9		7471A, 7471A		0.1041 g	50 mL		0.1041 g		

Batch Notes	
Hydroxylamine Hydrochloride Lot	790508
Balance ID	SEA220
Sulfuric Acid Lot Number	737209
Lot # of hydrochloric acid	769835
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Potassium Persulfate Lot Number	782098
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	92.5 CORRECTED-TEMP
Pipette ID	20051014
Stannous Chloride Lot Number	790550
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	062711
Uncorrected Temperature	94 Celsius

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG No.:

Project: Monte Cristo 17800-06

Client Sample ID	Lab Sample ID
W-12	580-28356-1
W-10	580-28356-2
W-9	580-28356-3
W-13	580-28356-4
W-15	580-28356-5
W-14	580-28356-6
G-1	580-28356-7
G-2	580-28356-8
G-3	580-28356-9
G-4	580-28356-10
G-5	580-28356-11
Potomac 2 (0-6)	580-28356-13
Potomac 2 (6-12)	580-28356-14
Potomac 3 (0-6)	580-28356-15
Potomac 3 (6-12)	580-28356-16
IXL 1 (0-6)	580-28356-17
IXL 1 (6-12)	580-28356-18
IXL 2 (0-6)	580-28356-19
IXL 2 (6-12)	580-28356-20
W-8	580-28356-21
W-16	580-28356-22
W-11	580-28356-23

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-12 Lab Sample ID: 580-28356-1

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/24/2011 12:37

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.84			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-10 Lab Sample ID: 580-28356-2

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/24/2011 12:45

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.70			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-9 Lab Sample ID: 580-28356-3

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/24/2011 13:43

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.23			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-13 Lab Sample ID: 580-28356-4

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/24/2011 13:50

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.63			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-15 Lab Sample ID: 580-28356-5

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/24/2011 14:30

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.64			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-14 Lab Sample ID: 580-28356-6

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/24/2011 14:30

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.31			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-1 Lab Sample ID: 580-28356-7

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/25/2011 10:30

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.53			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-2 Lab Sample ID: 580-28356-8

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/25/2011 10:55

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.03			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-3 Lab Sample ID: 580-28356-9

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/25/2011 11:35

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.23			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-4 Lab Sample ID: 580-28356-10

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/25/2011 13:10

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.67			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-5 Lab Sample ID: 580-28356-11

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/25/2011 15:50

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.89			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Potomac 2 (0-6) Lab Sample ID: 580-28356-13

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 13:20

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.86			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Potomac 2 (6-12) Lab Sample ID: 580-28356-14

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 13:24

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.02			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Potomac 3 (0-6) Lab Sample ID: 580-28356-15

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 13:33

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.08			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Potomac 3 (6-12) Lab Sample ID: 580-28356-16

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 13:40

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.98			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: IXL 1 (0-6) Lab Sample ID: 580-28356-17

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 14:47

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.61			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: IXL 1 (6-12) Lab Sample ID: 580-28356-18

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 14:55

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.76			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: IXL 2 (0-6)
Lab Sample ID: 580-28356-19
Lab Name: TestAmerica Seattle
Job No.: 580-28356-1
SDG ID.:
Matrix: Solid
Date Sampled: 08/26/2011 14:58
Reporting Basis: WET
Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.85			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: IXL 2 (6-12) Lab Sample ID: 580-28356-20

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/26/2011 15:02

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.71			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-8 Lab Sample ID: 580-28356-21

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/23/2011 15:00

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.47			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-16 Lab Sample ID: 580-28356-22

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/23/2011 15:25

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.95			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-11 Lab Sample ID: 580-28356-23

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG ID.:

Matrix: Solid Date Sampled: 08/24/2011 11:25

Reporting Basis: WET Date Received: 08/30/2011 12:20

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.23			SU			1	9045C

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Analyst: SH Batch Start Date: 09/11/2011

Reporting Units: SU Analytical Batch No.: 95104

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:23	pH	7.020	7.00	100			pH 7 ICV_00002
23	CCV	15:28	pH	7.010	7.00	100			pH 7 ICV_00002

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Analyst: SH Batch Start Date: 09/11/2011

Reporting Units: SU Analytical Batch No.: 95107

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	15:33	pH	7.040	7.00	101			pH 7 ICV_00002
10	CCV	15:33	pH	7.010	7.00	100			pH 7 ICV_00002

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 95107	Date: 09/11/2011 15:33							
9045C	IXL 2 (6-12)	580-28356-20	pH	4.71	SU			
9045C	IXL 2 (6-12)	580-28356-20 DU	pH	4.690	SU	0.4		

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job Number: 580-28356-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045C

Start Date: 09/11/2011 15:23 End Date: 09/11/2011 15:28

Lab Sample ID	D / F	Type	Time	Analytes																			
				pH																			
ICV 580-95104/1	1		15:23	X																			
ZZZZZZ			15:23																				
ZZZZZZ			15:23																				
580-28356-1	1	T	15:23	X																			
580-28356-2	1	T	15:23	X																			
580-28356-3	1	T	15:23	X																			
580-28356-4	1	T	15:23	X																			
580-28356-5	1	T	15:23	X																			
580-28356-6	1	T	15:23	X																			
580-28356-15	1	T	15:23	X																			
580-28356-7	1	T	15:23	X																			
580-28356-8	1	T	15:23	X																			
580-28356-9	1	T	15:23	X																			
580-28356-10	1	T	15:23	X																			
580-28356-11	1	T	15:23	X																			
ZZZZZZ			15:23																				
580-28356-13	1	T	15:23	X																			
580-28356-14	1	T	15:23	X																			
ZZZZZZ			15:23																				
580-28356-16	1	T	15:23	X																			
580-28356-17	1	T	15:23	X																			
580-28356-18	1	T	15:23	X																			
CCV 580-95104/23	1		15:28	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045C

Start Date: 09/11/2011 15:33 End Date: 09/11/2011 15:33

Lab Sample ID	D / F	Type	Time	Analytes																			
				pH																			
ICV 580-95107/1	1		15:33	X																			
580-28356-19	1	T	15:33	X																			
580-28356-20	1	T	15:33	X																			
580-28356-20 DU	1	T	15:33	X																			
580-28356-21	1	T	15:33	X																			
580-28356-22	1	T	15:33	X																			
580-28356-23	1	T	15:33	X																			
ZZZZZZ			15:33																				
ZZZZZZ			15:33																				
CCV 580-95107/10	1		15:33	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 09/11/2011 17:11 End Date: 09/11/2011 17:16

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
580-28356-1	1	T	17:11	X	X																		
580-28356-1 DU	1	T	17:11	X	X																		
580-28356-2	1	T	17:11	X	X																		
580-28356-3	1	T	17:11	X	X																		
580-28356-4	1	T	17:11	X	X																		
580-28356-5	1	T	17:11	X	X																		
580-28356-6	1	T	17:11	X	X																		
580-28356-7	1	T	17:11	X	X																		
580-28356-8	1	T	17:11	X	X																		
580-28356-9	1	T	17:11	X	X																		
580-28356-10	1	T	17:11	X	X																		
580-28356-11	1	T	17:11	X	X																		
580-28356-13	1	T	17:11	X	X																		
580-28356-14	1	T	17:11	X	X																		
580-28356-15	1	T	17:11	X	X																		
580-28356-16	1	T	17:11	X	X																		
580-28356-17	1	T	17:11	X	X																		
580-28356-18	1	T	17:11	X	X																		
580-28356-19	1	T	17:11	X	X																		
580-28356-20	1	T	17:11	X	X																		
580-28356-21	1	T	17:11	X	X																		
580-28356-22	1	T	17:16	X	X																		
580-28356-23	1	T	17:16	X	X																		
ZZZZZZ			17:16																				

Prep Types
T = Total/NA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst SM Date 9/11/11 Instrument ID pH2

Batch 95104 Start Time 14:45 End Time 15:11

Calibration

pH 4 Std.	TALS ID: 779178	Slope =	100%	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756339	Slope =	95.4%	
pH 10 Std.	TALS ID: 756338	Slope =	92.0%	
For Orion 370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.03	7.02	7.02	(±0.05 units) Yes / No
1	28343-A-1	7.25	7.25	7.25	
2	28343-A-1 dv	7.22	7.25	7.25	
3	28356-A-1	4.84	4.84	4.84	
4	28356-A-2	4.68	4.70	4.70	
5	28356-A-3	5.18	5.23	5.23	
6	28356-A-4	5.57	5.63	5.63	
7	28356-A-5	5.69	5.64	5.64	
8	28356-A-6	4.30	4.31	4.31	
9	28356-A-15	5.10	5.08	5.08	
10	28356-A-7	5.50	5.53	5.53	
11	28356-A-8	5.07	5.03	5.03	
12	28356-A-9	4.29	4.23	4.23	
13	28356-A-10	4.64	4.67	4.67	
14	28356-A-11	4.91	4.89	4.89	
15	28356-A-12	3.65	3.64	3.64	
16	28356-A-13	4.83	4.86	4.86	
17	28356-A-14	4.98	5.02	5.02	
18	28356-A-16	4.98	4.98	4.98	
19	28356-A-17	5.53	5.61	5.61	
20	28356-A-18	5.74	5.76	5.76	
Closing CCV	pH7 Std. TALS ID:	7.00	7.01	7.01	(±0.05 units) Yes / No

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units) Yes / No

Reviewer's Initals and Date

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst SH Date 9/11/11 Instrument ID pH2

Batch 95107 Start Time 1511 End Time 1521

Calibration

pH 4 Std.	TALS ID:	Slope =		Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID:	Slope =	refer to pg. 29	
pH 10 Std.	TALS ID:	Slope =		
For Orion 370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.05	7.04	7.04	(±0.05 units) Yes / No
1	28356-A-19	4.92	4.85	4.85	
2	28356-A-20	4.77	4.71	4.71	
3	28356-A-20dW	4.75	4.69	4.69	
4	28356-A-21	4.44	4.47	4.47	
5	28356-A-22	4.96	4.95	4.95	
6	28356-A-23	4.29	4.23	4.23	
7	28520-A-1	6.03	6.12	6.12	
8	28520-A-2	6.66	6.64	6.64	
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
Closing CCV	pH7 Std. TALS ID:	7.01	7.01	7.01	(±0.05 units) Yes / No

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units)
					Yes / No

Reviewer's Initals and Date

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95104 Batch Start Date: 09/11/11 15:23 Batch Analyst: Hawn, Stevie

Batch Method: 9045C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pH 7 ICV 00002					
ICV 580-95104/1		9045C		30 mL					
CCV 580-95104/23		9045C		30 mL					

Batch Notes	
pH Buffer 1 ID	779178
pH Buffer 2 ID	756339
pH Buffer 3 ID	756338
Electronic Slope	refer to logbook
Instrument ID	ph2
Probe ID	ph2
Sufficient volume for sample dup	yes

Basis	Basis Description

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95107 Batch Start Date: 09/11/11 15:33 Batch Analyst: Hawn, Stevie

Batch Method: 9045C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pH 7 ICV 00002					
ICV 580-95107/1		9045C		30 mL					
CCV 580-95107/10		9045C		30 mL					

Batch Notes	
pH Buffer 1 ID	779178
pH Buffer 2 ID	756339
pH Buffer 3 ID	756338
Electronic Slope	refer to logbook
Instrument ID	ph2
Probe ID	ph2
Sufficient volume for sample dup	yes

Basis	Basis Description

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95116 Batch Start Date: 09/11/11 17:11 Batch Analyst: Froyland, Zoe

Batch Method: Moisture Batch End Date: 09/12/11 12:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
580-28356-B-1	W-12	Moisture	T	0.7679 g	4.8000 g	3.7017 g			
580-28356-B-1 DU	W-12	Moisture	T	0.7489 g	5.2985 g	4.0816 g			
580-28356-A-2	W-10	Moisture	T	0.7677 g	4.6843 g	3.6782 g			
580-28356-A-3	W-9	Moisture	T	0.7399 g	4.4013 g	4.0064 g			
580-28356-A-4	W-13	Moisture	T	0.7718 g	6.7236 g	5.5199 g			
580-28356-A-5	W-15	Moisture	T	0.7624 g	6.7915 g	5.9498 g			
580-28356-A-6	W-14	Moisture	T	0.7499 g	4.9699 g	4.7390 g			
580-28356-A-7	G-1	Moisture	T	0.7624 g	5.4536 g	5.1050 g			
580-28356-A-8	G-2	Moisture	T	0.7586 g	4.7916 g	4.0212 g			
580-28356-A-9	G-3	Moisture	T	0.7730 g	4.8941 g	4.4899 g			
580-28356-A-10	G-4	Moisture	T	0.7255 g	5.2093 g	5.0564 g			
580-28356-A-11	G-5	Moisture	T	0.7598 g	4.4136 g	3.6654 g			
580-28356-A-13	Potomac 2 (0-6)	Moisture	T	0.7514 g	5.2354 g	4.9596 g			
580-28356-A-14	Potomac 2 (6-12)	Moisture	T	0.7472 g	5.4552 g	4.6558 g			
580-28356-A-15	Potomac 3 (0-6)	Moisture	T	0.7268 g	6.2051 g	5.8177 g			
580-28356-A-16	Potomac 3 (6-12)	Moisture	T	0.7380 g	5.9117 g	5.5658 g			
580-28356-A-17	IXL 1 (0-6)	Moisture	T	0.7484 g	7.2801 g	6.4319 g			
580-28356-A-18	IXL 1 (6-12)	Moisture	T	0.7282 g	6.9541 g	6.1100 g			
580-28356-A-19	IXL 2 (0-6)	Moisture	T	0.7164 g	8.0030 g	7.7716 g			
580-28356-A-20	IXL 2 (6-12)	Moisture	T	0.7339 g	8.2661 g	8.0135 g			
580-28356-A-21	W-8	Moisture	T	0.7457 g	6.3150 g	6.1038 g			
580-28356-A-22	W-16	Moisture	T	0.7182 g	4.0023 g	3.2828 g			
580-28356-A-23	W-11	Moisture	T	0.7458 g	5.8467 g	5.1945 g			

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28356-1

SDG No.:

Batch Number: 95116 Batch Start Date: 09/11/11 17:11 Batch Analyst: Froyland, Zoe

Batch Method: Moisture Batch End Date: 09/12/11 12:40

Batch Notes	
Balance ID	SEA220 No Unit
Date samples were placed in the oven	9/11/11
Oven Temp when samples are put in oven	110 CORRECTED-TEMP Degrees C
Time samples were place in the oven	1730
Date samples were removed from oven	9/12/11
Oven Temp when samples removed from oven	112 CORRECTED-TEMP Degrees C
Time Samples were removed from oven	1240
Oven ID	SEA304
ID number of the thermometer	14-985-C-1
Uncorrected In Temperature	111 Celsius
Uncorrected Out Temperature	113 Celsius

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

Sample Custody Record

28356

Samples Shipped to: Test America

HARTCROWSER

Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB 17800-00 LAB NUMBER

PROJECT NAME Monte Cristo

HART CROWSER CONTACT Michelle Havey
206-683-9199

SAMPLED BY: ASK/WDM/PRC/MAH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: See attached	REQUESTED ANALYSIS: Multi-incremental sample	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
12	Potomac 1	MS sample	8/26/11	1230	Soil	X	X	1	Retain sample for arsenic speciation
13	Potomac 2 (0-6)	mine feature		1320		X			
14	Potomac 2 (6-12)			1324		X			
15	Potomac 3 (0-6)			1333		X			
16	Potomac 3 (6-12)			1340		X			
17	IXL 1 (0-6)			1447		X			
18	IXL 1 (6-12)			1455		X			
19	IXL 2 (0-6)			1458		X			
20	IXL 2 (6-12)			1502		X			
21	W-8	Background	8/23/11	1500		X			
22	W-16		8/23/11	1525		X			
23	W-11		8/24/11	1125		X			

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/24/11	SIGNATURE WARD NICDONALD	8/24/11
PRINT NAME M. Cordell	TIME	PRINT NAME	TIME
COMPANY Hart Crowser	0800	COMPANY HC	~~1717~~ 0830
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE WARD MCDONALD	8/29/11	SIGNATURE K Presley	8/30/11
PRINT NAME HC	TIME	PRINT NAME TS	TIME
COMPANY	1719	COMPANY	1220

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:
Retain all samples for 1 month for arsenic speciation pending results

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER 10 days

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser to Sample Custodian

10/19/2011

Sample Custody Record

28356

Samples Shipped to: TestAmerica

HARTCROWSER

Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB 17800-06 LAB NUMBER

PROJECT NAME Monte Cristo

HART CROWSER CONTACT Michelle Harvey 206-683-9199

SAMPLED BY: ASK/WDM/PRC/MAH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: see attached	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
1	W-12	Background	8/24/11	1237	Soil	X	1	Retain sample for arsenic speciation
2	W-10			1245		X		
3	W-9			1343		X		
4	W-13			1350		X		
5	W-15			1430		X		
6	W-14			1430		X		
7	G-1		8/25/11	1030		X		
8	G-2			1055		X		
9	G-3			1135		X		
10	G-4			1310		X		
11	G-5			1550		X		
12								

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	8/29/11	SIGNATURE	8/29/11
PRINT NAME Phil Cordell	TIME	PRINT NAME WARD MCDONALD	TIME
COMPANY Hart Crowser	0800	COMPANY HC	1719 0836
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE WARD MCDONALD	8/29/11	SIGNATURE K Presley	8/30/11
PRINT NAME HC	TIME	PRINT NAME TA	TIME
COMPANY	1719	COMPANY	1220

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:
Retain all samples for 1 month for arsenic speciation pending results

TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

Cooler/TB Dig IR cor 2.0 unc 2.2
Cooler Dsc Mod/Ret @ Lab
Wet/Packs Packing —
Sent to Private Courier

See Lab Work Or... for Other Contrac...

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER 10 Days

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser

10/19/2011

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 580-28356-1

Login Number: 28356

List Source: TestAmerica Seattle

List Number: 1

Creator: Presley, Kim

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	Not needed.
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	No VOA rec'd.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 580-28720-1

Job Description: Monte Cristo Mine

For:
Hart Crowser, Inc.
1700 Westlake Avenue N
Suite 200
Seattle, WA 98109-3056

Attention: Roger McGinnis

Approved for release.
Kristine Allen
Project Manager I
10/11/2011 12:39 PM

Kristine Allen
Project Manager I
kristine.allen@testamericainc.com
10/11/2011

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This report shall not be reproduced except in full, without prior express written approval by the laboratory. The results relate only to the item(s) tested and the sample(s) as received by the laboratory.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

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CASE NARRATIVE

Client: Hart Crowser, Inc.
Project: Monte Cristo Mine
Report Number: 580-28720-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

The samples were received on 09/20/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.8 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)

Samples 76 S-2 0-6 (580-28720-1), 76 S-1 0-6 (580-28720-2), 76-9 (580-28720-3), 76-14 (580-28720-4), 76-15 (580-28720-5), 76-12 (580-28720-6), 76-18 (580-28720-7), 76-17 (580-28720-8), 76-13 (580-28720-9), 76-16 (580-28720-10), 76-10 (580-28720-11), 76-1 (580-28720-12), 76-4 (580-28720-13), 76-11 (580-28720-14), 76-5 (580-28720-15), 76-3 (580-28720-16), 76-6 (580-28720-17), 76-2 (580-28720-18), W-22 (580-28720-19), W-3 (580-28720-20), W-19 (580-28720-21), W-2 (580-28720-22), W-16 (580-28720-23), W-7 (580-28720-24), W-21 (580-28720-25), W-23 (580-28720-26), W-18 (580-28720-27), W-1 (580-28720-28), W-17 (580-28720-29), G-9 (580-28720-30), G-12 (580-28720-31), G-8 (580-28720-32), 76 S-2 6-12 (580-28720-33), G-7 (580-28720-34), G-11 (580-28720-35), G-6 (580-28720-36), 74 S-2 0-6 (580-28720-37), 74 S-1 0-6 (580-28720-38), G-10 (580-28720-39), Emma 2 S-2 6-12 (580-28720-40), Emma 2 S-1 0-6 (580-28720-41) and Emma 2 S-2 0-6 (580-28720-42) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 09/22/2011, 09/23/2011 and 09/24/2011 and analyzed on 09/24/2011 and 09/26/2011.

Calcium and Iron were detected in method blank (MB) 580-95937/21-A at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged. Iron was detected in method blank MB 580-96039/12-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Iron failed the recovery criteria high for the MS of sample 76-2MS (580-28720-18) in batch 580-96078.
Potassium failed the recovery criteria low for the MSD of sample 76-2MSD (580-28720-18) in batch 580-96078. Iron failed the recovery criteria high.

Iron failed the recovery criteria low for the MS of sample 76 S-2 0-6MS (580-28720-1) in batch 580-96078.
Iron failed the recovery criteria low for the MSD of sample 76 S-2 0-6MSD (580-28720-1) in batch 580-96078.

Calcium, Iron and Magnesium failed the recovery criteria high for the MS of sample G-11MS (580-28720-35) in batch 580-96226.
Calcium and Iron failed the recovery criteria high for the MSD of sample G-11MSD (580-28720-35) in batch 580-96226.

Samples 76 S-2 0-6 (580-28720-1)[100X], 76 S-1 0-6 (580-28720-2)[100X], 76-9 (580-28720-3)[100X], 76-15 (580-28720-5)[100X], 76-12 (580-28720-6)[100X], 76-17 (580-28720-8)[100X], 76-16 (580-28720-10)[100X], 76-10 (580-28720-11)[100X], 76-1 (580-28720-12)[100X], 76-4 (580-28720-13)[100X], 76-11 (580-28720-14)[100X], 76-3 (580-28720-16)[100X], 76-2 (580-28720-18)[100X], W-22 (580-28720-19)[100X], W-3 (580-28720-20)[100X], W-19 (580-28720-21)[100X], W-2 (580-28720-22)[100X], W-16

(580-28720-23)[100X], W-21 (580-28720-25)[100X], W-18 (580-28720-27)[100X], W-1 (580-28720-28)[100X], W-17 (580-28720-29)[100X], G-9 (580-28720-30)[100X], G-12 (580-28720-31)[100X], G-8 (580-28720-32)[100X], 76 S-2 6-12 (580-28720-33)[100X], G-7 (580-28720-34)[100X], G-11 (580-28720-35)[100X], G-6 (580-28720-36)[100X], 74 S-2 0-6 (580-28720-37)[100X], 74 S-1 0-6 (580-28720-38)[100X], G-10 (580-28720-39)[100X], Emma 2 S-2 6-12 (580-28720-40)[100X], Emma 2 S-1 0-6 (580-28720-41)[100X] and Emma 2 S-2 0-6 (580-28720-42)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)

Samples 76 S-2 0-6 (580-28720-1), 76 S-1 0-6 (580-28720-2), 76-9 (580-28720-3), 76-14 (580-28720-4), 76-15 (580-28720-5), 76-12 (580-28720-6), 76-18 (580-28720-7), 76-17 (580-28720-8), 76-13 (580-28720-9), 76-16 (580-28720-10), 76-10 (580-28720-11), 76-1 (580-28720-12), 76-4 (580-28720-13), 76-11 (580-28720-14), 76-5 (580-28720-15), 76-3 (580-28720-16), 76-6 (580-28720-17), 76-2 (580-28720-18), W-22 (580-28720-19), W-3 (580-28720-20), W-19 (580-28720-21), W-2 (580-28720-22), W-16 (580-28720-23), W-7 (580-28720-24), W-21 (580-28720-25), W-23 (580-28720-26), W-18 (580-28720-27), W-1 (580-28720-28), W-17 (580-28720-29), G-9 (580-28720-30), G-12 (580-28720-31), G-8 (580-28720-32), 76 S-2 6-12 (580-28720-33), G-7 (580-28720-34), G-11 (580-28720-35), G-6 (580-28720-36), 74 S-2 0-6 (580-28720-37), 74 S-1 0-6 (580-28720-38), G-10 (580-28720-39), Emma 2 S-2 6-12 (580-28720-40), Emma 2 S-1 0-6 (580-28720-41) and Emma 2 S-2 0-6 (580-28720-42) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 09/22/2011, 09/23/2011 and 09/24/2011 and analyzed on 09/23/2011 and 09/27/2011.

Nickel was detected in method blank MB 580-95937/21-A at a level exceeding the reporting limit. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged. Cobalt was detected in method blank MB 580-95937/21-A at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Antimony failed the recovery criteria low for the MS of sample 76-2MS (580-28720-18) in batch 580-96277. Several analytes failed the recovery criteria high.
Antimony and Manganese failed the recovery criteria low for the MSD of sample 76-2MSD (580-28720-18) in batch 580-96277.
Aluminum failed the recovery criteria high.

Several analytes failed the recovery criteria low for the MS of sample 76 S-2 0-6MS (580-28720-1) in batch 580-96018. Aluminum and Vanadium failed the recovery criteria high.
Several analytes failed the recovery criteria high for the MSD of sample 76 S-2 0-6MSD (580-28720-1) in batch 580-96018. Arsenic, Copper, Lead and Silver exceeded the rpd limit.

Antimony, Manganese and Zinc failed the recovery criteria low for the MS of sample G-11MS (580-28720-35) in batch 580-96277.
Several analytes failed the recovery criteria high.
Antimony, Manganese and Zinc failed the recovery criteria low for the MSD of sample G-11MSD (580-28720-35) in batch 580-96277.
Several analytes failed the recovery criteria high.

Samples 76 S-2 0-6 (580-28720-1)[1000X], 76 S-1 0-6 (580-28720-2)[1000X], 76 S-2 6-12 (580-28720-33)[1000X], 74 S-2 0-6 (580-28720-37)[1000X], 74 S-1 0-6 (580-28720-38)[1000X], Emma 2 S-1 0-6 (580-28720-41)[1000X] and Emma 2 S-2 0-6 (580-28720-42)[1000X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples 76 S-2 0-6 (580-28720-1), 76 S-1 0-6 (580-28720-2), 76-9 (580-28720-3), 76-14 (580-28720-4), 76-15 (580-28720-5), 76-12 (580-28720-6), 76-18 (580-28720-7), 76-17 (580-28720-8), 76-13 (580-28720-9), 76-16 (580-28720-10), 76-10 (580-28720-11), 76-1 (580-28720-12), 76-4 (580-28720-13), 76-11 (580-28720-14), 76-5 (580-28720-15), 76-3 (580-28720-16), 76-6 (580-28720-17), 76-2 (580-28720-18), W-22 (580-28720-19), W-3 (580-28720-20), W-19 (580-28720-21), W-2 (580-28720-22), W-16 (580-28720-23), W-7 (580-28720-24), W-21 (580-28720-25), W-23 (580-28720-26), W-18 (580-28720-27), W-1 (580-28720-28), W-17 (580-28720-29), G-9 (580-28720-30), G-12 (580-28720-31), G-8 (580-28720-32), 76 S-2 6-12 (580-28720-33), G-7 (580-28720-34), G-11 (580-28720-35), G-6 (580-28720-36), 74 S-2 0-6 (580-28720-37), 74 S-1 0-6 (580-28720-38), G-10 (580-28720-39), Emma 2 S-2 6-12 (580-28720-40), Emma 2 S-1 0-6 (580-28720-41) and Emma 2 S-2 0-6 (580-28720-42) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared on 09/22/2011 and 09/27/2011 and analyzed on 09/23/2011 and 09/28/2011.

Mercury failed the recovery criteria low for the MS of sample 76 S-2 0-6MS (580-28720-1) in batch 580-96125.
Mercury failed the recovery criteria low for the MSD of sample 76 S-2 0-6MSD (580-28720-1) in batch 580-96125. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Samples 76 S-2 0-6 (580-28720-1)[10X], 76 S-1 0-6 (580-28720-2)[10X], 76-1 (580-28720-12)[10X] and 76 S-2 6-12 (580-28720-33)

[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Samples 76 S-2 0-6 (580-28720-1), 76 S-1 0-6 (580-28720-2), 76-9 (580-28720-3), 76-14 (580-28720-4), 76-15 (580-28720-5), 76-12 (580-28720-6), 76-18 (580-28720-7), 76-17 (580-28720-8), 76-13 (580-28720-9), 76-16 (580-28720-10), 76-10 (580-28720-11), 76-1 (580-28720-12), 76-4 (580-28720-13), 76-11 (580-28720-14), 76-5 (580-28720-15), 76-3 (580-28720-16), 76-6 (580-28720-17), 76-2 (580-28720-18), W-22 (580-28720-19), W-3 (580-28720-20), W-19 (580-28720-21), W-2 (580-28720-22), W-16 (580-28720-23), W-7 (580-28720-24), W-21 (580-28720-25), W-23 (580-28720-26), W-18 (580-28720-27), W-1 (580-28720-28), W-17 (580-28720-29), G-9 (580-28720-30), G-12 (580-28720-31), G-8 (580-28720-32), 76 S-2 6-12 (580-28720-33), G-7 (580-28720-34), G-11 (580-28720-35), G-6 (580-28720-36), 74 S-2 0-6 (580-28720-37), 74 S-1 0-6 (580-28720-38), G-10 (580-28720-39), Emma 2 S-2 6-12 (580-28720-40), Emma 2 S-1 0-6 (580-28720-41) and Emma 2 S-2 0-6 (580-28720-42) were analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045C. The samples were analyzed on 09/22/2011, 10/03/2011 and 10/05/2011.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples 76 S-2 0-6 (580-28720-1), 76 S-1 0-6 (580-28720-2), 76-9 (580-28720-3), 76-14 (580-28720-4), 76-15 (580-28720-5), 76-12 (580-28720-6), 76-18 (580-28720-7), 76-17 (580-28720-8), 76-13 (580-28720-9), 76-16 (580-28720-10), 76-10 (580-28720-11), 76-1 (580-28720-12), 76-4 (580-28720-13), 76-11 (580-28720-14), 76-5 (580-28720-15), 76-3 (580-28720-16), 76-6 (580-28720-17), 76-2 (580-28720-18), W-22 (580-28720-19), W-3 (580-28720-20), W-19 (580-28720-21), W-2 (580-28720-22), W-16 (580-28720-23), W-7 (580-28720-24), W-21 (580-28720-25), W-23 (580-28720-26), W-18 (580-28720-27), W-1 (580-28720-28), W-17 (580-28720-29), G-9 (580-28720-30), G-12 (580-28720-31), G-8 (580-28720-32), 76 S-2 6-12 (580-28720-33), G-7 (580-28720-34), G-11 (580-28720-35), G-6 (580-28720-36), 74 S-2 0-6 (580-28720-37), 74 S-1 0-6 (580-28720-38), G-10 (580-28720-39), Emma 2 S-2 6-12 (580-28720-40), Emma 2 S-1 0-6 (580-28720-41) and Emma 2 S-2 0-6 (580-28720-42) were analyzed for percent solids in accordance with EPA Method 160.3 Modified. The samples were analyzed on 09/23/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-28720-1	76 S-2 0-6	Solid	09/13/2011 1730	09/20/2011 1100
580-28720-2	76 S-1 0-6	Solid	09/13/2011 1640	09/20/2011 1100
580-28720-3	76-9	Solid	09/16/2011 1215	09/20/2011 1100
580-28720-4	76-14	Solid	09/16/2011 1350	09/20/2011 1100
580-28720-5	76-15	Solid	09/16/2011 1320	09/20/2011 1100
580-28720-6	76-12	Solid	09/16/2011 1105	09/20/2011 1100
580-28720-7	76-18	Solid	09/16/2011 1030	09/20/2011 1100
580-28720-8	76-17	Solid	09/16/2011 1100	09/20/2011 1100
580-28720-9	76-13	Solid	09/16/2011 1040	09/20/2011 1100
580-28720-10	76-16	Solid	09/16/2011 1145	09/20/2011 1100
580-28720-11	76-10	Solid	09/16/2011 0945	09/20/2011 1100
580-28720-12	76-1	Solid	09/13/2011 1630	09/20/2011 1100
580-28720-13	76-4	Solid	09/16/2011 1405	09/20/2011 1100
580-28720-14	76-11	Solid	09/15/2011 1550	09/20/2011 1100
580-28720-15	76-5	Solid	09/16/2011 1335	09/20/2011 1100
580-28720-16	76-3	Solid	09/13/2011 1345	09/20/2011 1100
580-28720-17	76-6	Solid	09/16/2011 1300	09/20/2011 1100
580-28720-18	76-2	Solid	09/15/2011 1450	09/20/2011 1100
580-28720-19	W-22	Solid	09/12/2011 1410	09/20/2011 1100
580-28720-20	W-3	Solid	09/12/2011 1600	09/20/2011 1100
580-28720-21	W-19	Solid	09/12/2011 1037	09/20/2011 1100
580-28720-22	W-2	Solid	09/12/2011 1700	09/20/2011 1100
580-28720-23	W-16	Solid	09/12/2011 1540	09/20/2011 1100
580-28720-24	W-7	Solid	09/12/2011 1620	09/20/2011 1100
580-28720-25	W-21	Solid	09/12/2011 1300	09/20/2011 1100
580-28720-26	W-23	Solid	09/12/2011 1445	09/20/2011 1100
580-28720-27	W-18	Solid	09/12/2011 1116	09/20/2011 1100
580-28720-28	W-1	Solid	09/12/2011 1510	09/20/2011 1100
580-28720-29	W-17	Solid	09/12/2011 1205	09/20/2011 1100
580-28720-30	G-9	Solid	09/14/2011 1425	09/20/2011 1100
580-28720-31	G-12	Solid	09/14/2011 1605	09/20/2011 1100
580-28720-32	G-8	Solid	09/14/2011 1410	09/20/2011 1100
580-28720-33	76 S-2 6-12	Solid	09/13/2011 1740	09/20/2011 1100
580-28720-34	G-7	Solid	09/14/2011 1330	09/20/2011 1100
580-28720-35	G-11	Solid	09/14/2011 1315	09/20/2011 1100
580-28720-36	G-6	Solid	09/14/2011 1430	09/20/2011 1100
580-28720-37	74 S-2 0-6	Solid	09/15/2011 1320	09/20/2011 1100
580-28720-38	74 S-1 0-6	Solid	09/15/2011 1310	09/20/2011 1100
580-28720-39	G-10	Solid	09/14/2011 1525	09/20/2011 1100
580-28720-40	Emma 2 S-2 6-12	Solid	09/15/2011 1330	09/20/2011 1100
580-28720-41	Emma 2 S-1 0-6	Solid	09/15/2011 1300	09/20/2011 1100
580-28720-42	Emma 2 S-2 0-6	Solid	09/15/2011 1320	09/20/2011 1100

METHOD SUMMARY

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Metals (ICP)	TAL SEA	SW846 6010B	
Preparation, Metals	TAL SEA		SW846 3050B
Metals (ICP/MS)	TAL SEA	SW846 6020	
Preparation, Metals	TAL SEA		SW846 3050B
Mercury (CVAA)	TAL SEA	SW846 7471A	
Preparation, Mercury	TAL SEA		SW846 7471A
pH	TAL SEA	SW846 9045C	
Percent Moisture	TAL SEA	EPA Moisture	

Lab References:

TAL SEA = TestAmerica Seattle

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76 S-2 0-6

Lab Sample ID: 580-28720-1 Date Sampled: 09/13/2011 1730
Client Matrix: Solid % Moisture: 6.9 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.1195 g
Analysis Date:	09/24/2011 1102			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		400		15	160
Calcium		1000	B	3.0	53
Magnesium		440		3.1	53

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.1195 g
Analysis Date:	09/24/2011 1154			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		70000	B	59	960

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.1195 g
Analysis Date:	09/23/2011 1200			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		1200		2.9	29
Antimony		300		0.040	0.19
Beryllium		0.18	J	0.021	0.19
Cadmium		10		0.0077	0.19
Chromium		0.74		0.11	0.19
Copper		160		0.094	0.19
Lead		1000		0.012	0.19
Nickel		3.1	B	0.19	0.19
Selenium		0.33	J	0.19	0.67
Silver		12		0.012	0.19
Thallium		0.45	J	0.12	0.48
Zinc		1800		1.1	0.67
Sodium		ND		38	96
Barium		12		0.029	0.19
Vanadium		12		0.45	0.67
Cobalt		15	B	0.018	0.19

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76 S-2 0-6

Lab Sample ID: 580-28720-1 Date Sampled: 09/13/2011 1730
Client Matrix: Solid % Moisture: 6.9 Date Received: 09/20/2011 1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	1000			Initial Weight/Volume:	1.1195 g
Analysis Date:	09/23/2011 1332			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		8600		17	48
Manganese		4800		16	48

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6333 g
Analysis Date:	09/23/2011 1539			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.2		0.053	0.17

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76 S-1 0-6

Lab Sample ID: 580-28720-2 Date Sampled: 09/13/2011 1640
Client Matrix: Solid % Moisture: 29.7 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0099 g
Analysis Date:	09/24/2011 1201			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		660		23	230
Calcium		5600	B	4.4	77
Magnesium		3600		4.5	77

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0099 g
Analysis Date:	09/24/2011 1208			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		87000	B	86	1400

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0099 g
Analysis Date:	09/23/2011 1221			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		11000		4.2	42
Antimony		220		0.059	0.28
Beryllium		0.35		0.031	0.28
Cadmium		31		0.011	0.28
Chromium		15		0.16	0.28
Copper		410		0.14	0.28
Lead		1700		0.018	0.28
Manganese		2800		0.24	0.70
Nickel		12	B	0.29	0.28
Selenium		2.3		0.28	0.99
Silver		29		0.017	0.28
Thallium		0.26	J	0.18	0.70
Sodium		99	J	55	140
Barium		33		0.042	0.28
Vanadium		99		0.67	0.99
Cobalt		21	B	0.027	0.28

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76 S-1 0-6

Lab Sample ID: 580-28720-2 Date Sampled: 09/13/2011 1640
Client Matrix: Solid % Moisture: 29.7 Date Received: 09/20/2011 1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	1000			Initial Weight/Volume:	1.0099 g
Analysis Date:	09/23/2011 1335			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		11000		25	70
Zinc		4700		160	99

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6207 g
Analysis Date:	09/23/2011 1546			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.2		0.072	0.23

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-9

Lab Sample ID: 580-28720-3 Date Sampled: 09/16/2011 1215
Client Matrix: Solid % Moisture: 42.9 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0418 g
Analysis Date:	09/24/2011 1215			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		530		27	280
Calcium		450	B	5.2	93
Magnesium		3000		5.4	93

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0418 g
Analysis Date:	09/24/2011 1222			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		33000	B	100	1700

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0418 g
Analysis Date:	09/23/2011 1225			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		56000		5.0	50
Antimony		7.6		0.071	0.34
Arsenic		330		0.30	0.84
Beryllium		0.62		0.037	0.34
Cadmium		0.90		0.013	0.34
Chromium		19		0.19	0.34
Copper		480		0.16	0.34
Lead		60		0.022	0.34
Manganese		300		0.29	0.84
Nickel		11	B	0.34	0.34
Selenium		3.8		0.34	1.2
Silver		1.3		0.020	0.34
Thallium		ND		0.22	0.84
Zinc		120		1.9	1.2
Sodium		ND		66	170
Barium		38		0.050	0.34
Vanadium		36		0.80	1.2
Cobalt		4.3	B	0.032	0.34

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-9

Lab Sample ID: 580-28720-3 Date Sampled: 09/16/2011 1215
Client Matrix: Solid % Moisture: 42.9 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6403 g
Analysis Date:	09/23/2011 1354			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.35		0.0086	0.027

Client Sample ID: 76-14

Lab Sample ID: 580-28720-4 Date Sampled: 09/16/2011 1350
Client Matrix: Solid % Moisture: 43.1 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0695 g
Analysis Date:	09/24/2011 1229			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		5400	B	1.0	16
Potassium		40	J	26	270
Calcium		370	B	5.1	90
Magnesium		160		5.3	90

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0695 g
Analysis Date:	09/23/2011 1229			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		25000		4.9	49
Antimony		1.9		0.069	0.33
Arsenic		65		0.30	0.82
Beryllium		0.44		0.036	0.33
Cadmium		0.35		0.013	0.33
Chromium		4.6		0.19	0.33
Copper		30		0.16	0.33
Lead		17		0.021	0.33
Manganese		560		0.28	0.82
Nickel		0.96	B	0.33	0.33
Selenium		1.5		0.33	1.1
Silver		0.80		0.020	0.33
Thallium		ND		0.21	0.82
Zinc		26		1.8	1.1
Sodium		ND		64	160
Barium		8.1		0.049	0.33
Vanadium		10		0.78	1.1
Cobalt		28	B	0.031	0.33

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6646 g
Analysis Date:	09/23/2011 1400			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.20		0.0083	0.026

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **76-14**

Lab Sample ID: 580-28720-4 Date Sampled: 09/16/2011 1350
Client Matrix: Solid % Moisture: 43.1 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Client Sample ID: 76-15

Lab Sample ID: 580-28720-5 Date Sampled: 09/16/2011 1320
Client Matrix: Solid % Moisture: 37.7 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.1109 g
Analysis Date:	09/24/2011 1243			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		300		23	240
Calcium		810	B	4.5	79
Magnesium		2000		4.6	79

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.1109 g
Analysis Date:	09/24/2011 1250			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		22000	B	88	1400

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.1109 g
Analysis Date:	09/23/2011 1233			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		27000		4.3	43
Antimony		1.7		0.061	0.29
Arsenic		48		0.26	0.72
Beryllium		0.36		0.032	0.29
Cadmium		0.14	J	0.012	0.29
Chromium		12		0.16	0.29
Copper		28		0.14	0.29
Lead		22		0.019	0.29
Manganese		130		0.25	0.72
Nickel		6.2	B	0.29	0.29
Selenium		1.1		0.29	1.0
Silver		0.53		0.017	0.29
Thallium		ND		0.19	0.72
Zinc		34		1.6	1.0
Sodium		ND		57	140
Barium		31		0.043	0.29
Vanadium		55		0.68	1.0
Cobalt		3.4	B	0.027	0.29

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-15

Lab Sample ID: 580-28720-5 Date Sampled: 09/16/2011 1320
Client Matrix: Solid % Moisture: 37.7 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6539 g
Analysis Date:	09/23/2011 1401			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.20		0.0077	0.025

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-12

Lab Sample ID: 580-28720-6 Date Sampled: 09/16/2011 1105
Client Matrix: Solid % Moisture: 49.5 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0597 g
Analysis Date:	09/24/2011 1313			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		300	J	30	310
Calcium		210	B	5.8	100
Magnesium		2000		6.0	100

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0597 g
Analysis Date:	09/24/2011 1320			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		30000	B	110	1900

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0597 g
Analysis Date:	09/23/2011 1246			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		14000		5.6	56
Antimony		2.4		0.078	0.37
Arsenic		430		0.34	0.93
Beryllium		0.096	J	0.041	0.37
Cadmium		0.16	J	0.015	0.37
Chromium		9.3		0.21	0.37
Copper		33		0.18	0.37
Lead		25		0.024	0.37
Manganese		78		0.32	0.93
Nickel		5.0	B	0.38	0.37
Selenium		1.3		0.38	1.3
Silver		0.43		0.022	0.37
Thallium		ND		0.24	0.93
Zinc		9.4		2.1	1.3
Sodium		ND		73	190
Barium		14		0.056	0.37
Vanadium		57		0.88	1.3
Cobalt		2.9	B	0.036	0.37

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-12

Lab Sample ID: 580-28720-6 Date Sampled: 09/16/2011 1105
Client Matrix: Solid % Moisture: 49.5 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6819 g
Analysis Date:	09/23/2011 1403			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.14		0.0091	0.029

Client Sample ID: 76-18

Lab Sample ID: 580-28720-7 Date Sampled: 09/16/2011 1030
Client Matrix: Solid % Moisture: 35.1 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0217 g
Analysis Date:	09/24/2011 1327			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		14000	B	0.92	15
Potassium		130	J	24	250
Calcium		160	B	4.7	83
Magnesium		940		4.8	83

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0217 g
Analysis Date:	09/23/2011 1250			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9800		4.5	45
Antimony		1.2		0.063	0.30
Arsenic		27		0.27	0.75
Beryllium		0.14	J	0.033	0.30
Cadmium		0.22	J	0.012	0.30
Chromium		7.3		0.17	0.30
Copper		33		0.15	0.30
Lead		66		0.020	0.30
Manganese		94		0.26	0.75
Nickel		4.3	B	0.31	0.30
Selenium		0.72	J	0.30	1.1
Silver		0.41		0.018	0.30
Thallium		ND		0.20	0.75
Zinc		11		1.7	1.1
Sodium		61	J	59	150
Barium		12		0.045	0.30
Vanadium		29		0.71	1.1
Cobalt		3.1	B	0.029	0.30

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6128 g
Analysis Date:	09/23/2011 1405			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.26		0.0079	0.025

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **76-18**

Lab Sample ID: 580-28720-7 Date Sampled: 09/16/2011 1030
Client Matrix: Solid % Moisture: 35.1 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-17

Lab Sample ID: 580-28720-8 Date Sampled: 09/16/2011 1100
Client Matrix: Solid % Moisture: 40.7 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0893 g
Analysis Date:	09/24/2011 1341			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		380		25	260
Calcium		270	B	4.8	85
Magnesium		3100		5.0	85

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0893 g
Analysis Date:	09/24/2011 1347			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		29000	B	95	1500

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0893 g
Analysis Date:	09/23/2011 1254			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		35000		4.6	46
Antimony		2.5		0.065	0.31
Arsenic		110		0.28	0.77
Beryllium		0.27	J	0.034	0.31
Cadmium		0.28	J	0.012	0.31
Chromium		19		0.18	0.31
Copper		44		0.15	0.31
Lead		27		0.020	0.31
Manganese		160		0.26	0.77
Nickel		9.7	B	0.31	0.31
Selenium		1.0	J	0.31	1.1
Silver		0.74		0.019	0.31
Thallium		ND		0.20	0.77
Zinc		31		1.7	1.1
Sodium		ND		61	150
Barium		30		0.046	0.31
Vanadium		57		0.73	1.1
Cobalt		4.4	B	0.029	0.31

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-17

Lab Sample ID: 580-28720-8 Date Sampled: 09/16/2011 1100
Client Matrix: Solid % Moisture: 40.7 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7019 g
Analysis Date:	09/23/2011 1406			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.26		0.0076	0.024

Client Sample ID: 76-13

Lab Sample ID: 580-28720-9 Date Sampled: 09/16/2011 1040
Client Matrix: Solid % Moisture: 62.6 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0238 g
Analysis Date:	09/24/2011 1354			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		12000	B	1.6	26
Potassium		70	J	42	430
Calcium		280	B	8.1	140
Magnesium		60	J	8.4	140

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0238 g
Analysis Date:	09/23/2011 1257			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		18000		7.8	78
Antimony		0.41	J	0.11	0.52
Arsenic		8.4		0.47	1.3
Beryllium		0.19	J	0.057	0.52
Cadmium		0.26	J	0.021	0.52
Chromium		5.2		0.29	0.52
Copper		20		0.26	0.52
Lead		7.5		0.034	0.52
Manganese		19		0.44	1.3
Nickel		3.6	B	0.53	0.52
Selenium		1.2	J	0.53	1.8
Silver		1.0		0.031	0.52
Thallium		ND		0.34	1.3
Zinc		ND		2.9	1.8
Sodium		ND		100	260
Barium		9.6		0.078	0.52
Vanadium		14		1.2	1.8
Cobalt		1.0	B	0.050	0.52

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6320 g
Analysis Date:	09/23/2011 1408			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.20		0.013	0.042

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **76-13**

Lab Sample ID: 580-28720-9 Date Sampled: 09/16/2011 1040
Client Matrix: Solid % Moisture: 62.6 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-16

Lab Sample ID: 580-28720-10 Date Sampled: 09/16/2011 1145
Client Matrix: Solid % Moisture: 27.2 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0402 g
Analysis Date:	09/24/2011 1408			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1900		21	220
Calcium		250	B	4.1	73
Magnesium		6200		4.2	73

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0402 g
Analysis Date:	09/24/2011 1415			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		19000	B	81	1300

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0402 g
Analysis Date:	09/23/2011 1300			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		13000		4.0	40
Antimony		0.24	J	0.055	0.26
Arsenic		6.6		0.24	0.66
Beryllium		0.059	J	0.029	0.26
Cadmium		0.16	J	0.011	0.26
Chromium		10		0.15	0.26
Copper		13		0.13	0.26
Lead		13		0.017	0.26
Manganese		240		0.22	0.66
Nickel		8.8	B	0.27	0.26
Selenium		0.37	J	0.27	0.92
Silver		0.51		0.016	0.26
Thallium		ND		0.17	0.66
Zinc		32		1.5	0.92
Sodium		60	J	52	130
Barium		40		0.040	0.26
Vanadium		34		0.62	0.92
Cobalt		2.0	B	0.025	0.26

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-16

Lab Sample ID: 580-28720-10 Date Sampled: 09/16/2011 1145
Client Matrix: Solid % Moisture: 27.2 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6739 g
Analysis Date:	09/23/2011 1410			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.094		0.0064	0.020

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-10

Lab Sample ID: 580-28720-11 Date Sampled: 09/16/2011 0945
Client Matrix: Solid % Moisture: 38.8 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0069 g
Analysis Date:	09/24/2011 1441			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		300		26	270
Calcium		540	B	5.0	89
Magnesium		880		5.2	89

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0069 g
Analysis Date:	09/24/2011 1448			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		17000	B	99	1600

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0069 g
Analysis Date:	09/23/2011 1303			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9400		4.9	49
Antimony		1.6		0.068	0.32
Arsenic		69		0.29	0.81
Beryllium		0.081	J	0.036	0.32
Cadmium		0.14	J	0.013	0.32
Chromium		8.6		0.18	0.32
Copper		14		0.16	0.32
Lead		20		0.021	0.32
Manganese		92		0.28	0.81
Nickel		5.0	B	0.33	0.32
Selenium		0.44	J	0.33	1.1
Silver		0.39		0.019	0.32
Thallium		ND		0.21	0.81
Zinc		23		1.8	1.1
Sodium		ND		64	160
Barium		20		0.049	0.32
Vanadium		43		0.77	1.1
Cobalt		2.2	B	0.031	0.32

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-10

Lab Sample ID: 580-28720-11 Date Sampled: 09/16/2011 0945
Client Matrix: Solid % Moisture: 38.8 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6227 g
Analysis Date:	09/23/2011 1411			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.21		0.0083	0.026

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-1

Lab Sample ID: 580-28720-12 Date Sampled: 09/13/2011 1630
Client Matrix: Solid % Moisture: 15.1 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0129 g
Analysis Date:	09/24/2011 1455			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		340		19	190
Calcium		690	B	3.6	64
Magnesium		4900		3.7	64

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0129 g
Analysis Date:	09/24/2011 1501			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		28000	B	71	1200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0129 g
Analysis Date:	09/23/2011 1307			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		11000		3.5	35
Antimony		46		0.049	0.23
Arsenic		430		0.21	0.58
Beryllium		0.11	J	0.026	0.23
Cadmium		0.23		0.0093	0.23
Chromium		21		0.13	0.23
Copper		17		0.11	0.23
Lead		210		0.015	0.23
Manganese		950		0.20	0.58
Nickel		13	B	0.24	0.23
Selenium		ND		0.23	0.81
Silver		3.5		0.014	0.23
Thallium		0.19	J	0.15	0.58
Zinc		79		1.3	0.81
Sodium		80	J	46	120
Barium		15		0.035	0.23
Vanadium		38		0.55	0.81
Cobalt		12	B	0.022	0.23

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-1

Lab Sample ID: 580-28720-12 Date Sampled: 09/13/2011 1630
Client Matrix: Solid % Moisture: 15.1 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6137 g
Analysis Date:	09/23/2011 1548			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.83		0.060	0.19

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-4

Lab Sample ID: 580-28720-13 Date Sampled: 09/16/2011 1405
Client Matrix: Solid % Moisture: 39.0 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0669 g
Analysis Date:	09/24/2011 1508			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		290		25	250
Calcium		150	B	4.8	85
Magnesium		2500		4.9	85

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0669 g
Analysis Date:	09/24/2011 1515			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		43000	B	94	1500

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0669 g
Analysis Date:	09/23/2011 1310			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		29000		4.6	46
Antimony		3.0		0.065	0.31
Arsenic		69		0.28	0.77
Beryllium		0.27	J	0.034	0.31
Cadmium		0.065	J	0.012	0.31
Chromium		17		0.17	0.31
Copper		19		0.15	0.31
Lead		21		0.020	0.31
Manganese		130		0.26	0.77
Nickel		8.2	B	0.31	0.31
Selenium		0.51	J	0.31	1.1
Silver		0.51		0.018	0.31
Thallium		ND		0.20	0.77
Zinc		ND		1.7	1.1
Sodium		ND		60	150
Barium		26		0.046	0.31
Vanadium		110		0.73	1.1
Cobalt		3.9	B	0.029	0.31

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-4

Lab Sample ID: 580-28720-13 Date Sampled: 09/16/2011 1405
Client Matrix: Solid % Moisture: 39.0 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7781 g
Analysis Date:	09/23/2011 1415			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.12		0.0066	0.021

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-11

Lab Sample ID: 580-28720-14 Date Sampled: 09/15/2011 1550
Client Matrix: Solid % Moisture: 8.0 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0491 g
Analysis Date:	09/24/2011 1522			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		360		17	170
Calcium		1600	B	3.2	57
Magnesium		4000		3.3	57

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0491 g
Analysis Date:	09/24/2011 1529			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		22000	B	63	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0491 g
Analysis Date:	09/23/2011 1313			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9400		3.1	31
Antimony		43		0.044	0.21
Arsenic		400		0.19	0.52
Beryllium		0.20	J	0.023	0.21
Cadmium		1.1		0.0083	0.21
Chromium		15		0.12	0.21
Copper		28		0.10	0.21
Lead		170		0.013	0.21
Manganese		1200		0.18	0.52
Nickel		11	B	0.21	0.21
Selenium		ND		0.21	0.73
Silver		1.4		0.012	0.21
Thallium		0.20	J	0.13	0.52
Zinc		210		1.2	0.73
Sodium		85	J	41	100
Barium		28		0.031	0.21
Vanadium		29		0.49	0.73
Cobalt		11	B	0.020	0.21

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-11

Lab Sample ID: 580-28720-14 Date Sampled: 09/15/2011 1550
Client Matrix: Solid % Moisture: 8.0 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6656 g
Analysis Date:	09/23/2011 1420			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.56		0.0051	0.016

Client Sample ID: 76-5

Lab Sample ID: 580-28720-15 Date Sampled: 09/16/2011 1335
Client Matrix: Solid % Moisture: 33.4 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0835 g
Analysis Date:	09/24/2011 1536			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		4900	B	0.85	14
Potassium		39	J	22	230
Calcium		140	B	4.3	76
Magnesium		87		4.4	76

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0835 g
Analysis Date:	09/23/2011 1316			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6100		4.2	42
Antimony		1.6		0.058	0.28
Arsenic		14		0.25	0.69
Beryllium		0.066	J	0.030	0.28
Cadmium		0.13	J	0.011	0.28
Chromium		3.1		0.16	0.28
Copper		7.5		0.14	0.28
Lead		7.6		0.018	0.28
Manganese		54		0.24	0.69
Nickel		1.2	B	0.28	0.28
Selenium		ND		0.28	0.97
Silver		0.38		0.017	0.28
Thallium		ND		0.18	0.69
Zinc		11		1.6	0.97
Sodium		85	J	54	140
Barium		7.1		0.042	0.28
Vanadium		20		0.66	0.97
Cobalt		1.4	B	0.026	0.28

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6693 g
Analysis Date:	09/23/2011 1422			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.052		0.0071	0.022

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **76-5**

Lab Sample ID: 580-28720-15 Date Sampled: 09/16/2011 1335
Client Matrix: Solid % Moisture: 33.4 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-3

Lab Sample ID: 580-28720-16 Date Sampled: 09/13/2011 1345
Client Matrix: Solid % Moisture: 19.0 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0043 g
Analysis Date:	09/24/2011 1606			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		320		20	200
Calcium		390	B	3.8	68
Magnesium		4100		3.9	68

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0043 g
Analysis Date:	09/24/2011 1613			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		24000	B	75	1200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0043 g
Analysis Date:	09/23/2011 1325			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		18000		3.7	37
Antimony		31		0.052	0.25
Arsenic		100		0.22	0.61
Beryllium		0.22	J	0.027	0.25
Cadmium		0.22	J	0.0098	0.25
Chromium		16		0.14	0.25
Copper		16		0.12	0.25
Lead		59		0.016	0.25
Manganese		1300		0.21	0.61
Nickel		8.9	B	0.25	0.25
Selenium		0.48	J	0.25	0.86
Silver		0.45		0.015	0.25
Thallium		0.20	J	0.16	0.61
Zinc		68		1.4	0.86
Sodium		62	J	48	120
Barium		30		0.037	0.25
Vanadium		43		0.58	0.86
Cobalt		10	B	0.023	0.25

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-3

Lab Sample ID: 580-28720-16 Date Sampled: 09/13/2011 1345
Client Matrix: Solid % Moisture: 19.0 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6727 g
Analysis Date:	09/23/2011 1424			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.47		0.0058	0.018

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-6

Lab Sample ID: 580-28720-17 Date Sampled: 09/16/2011 1300
Client Matrix: Solid % Moisture: 47.6 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0245 g
Analysis Date:	09/24/2011 1620			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		13000	B	1.1	19
Potassium		190	J	30	310
Calcium		270	B	5.8	100
Magnesium		750		6.0	100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96018	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0245 g
Analysis Date:	09/23/2011 1329			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9300		5.6	56
Antimony		1.2		0.078	0.37
Arsenic		9.6		0.34	0.93
Beryllium		0.15	J	0.041	0.37
Cadmium		0.32	J	0.015	0.37
Chromium		5.1		0.21	0.37
Copper		13		0.18	0.37
Lead		7.4		0.024	0.37
Manganese		66		0.32	0.93
Nickel		3.2	B	0.38	0.37
Selenium		0.38	J	0.38	1.3
Silver		0.42		0.022	0.37
Thallium		ND		0.24	0.93
Zinc		8.3		2.1	1.3
Sodium		88	J	73	190
Barium		11		0.056	0.37
Vanadium		24		0.88	1.3
Cobalt		2.0	B	0.035	0.37

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6346 g
Analysis Date:	09/23/2011 1425			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.10		0.0095	0.030

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **76-6**

Lab Sample ID: 580-28720-17 Date Sampled: 09/16/2011 1300
Client Matrix: Solid % Moisture: 47.6 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-2

Lab Sample ID: 580-28720-18 Date Sampled: 09/15/2011 1450
Client Matrix: Solid % Moisture: 9.3 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0277 g
Analysis Date:	09/24/2011 1726			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		700		17	180
Calcium		1900		3.3	59
Magnesium		6500		3.4	59

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0277 g
Analysis Date:	09/24/2011 1816			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		28000		65	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	055SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0277 g
Analysis Date:	09/27/2011 1155			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		14000		3.2	32
Antimony		20		0.045	0.21
Arsenic		430		0.19	0.54
Beryllium		0.31		0.024	0.21
Cadmium		1.0		0.0086	0.21
Chromium		26		0.12	0.21
Copper		27		0.11	0.21
Lead		170		0.014	0.21
Manganese		1400		0.18	0.54
Nickel		20		0.22	0.21
Selenium		0.56	J	0.22	0.75
Silver		1.4		0.013	0.21
Thallium		0.31	J	0.14	0.54
Zinc		210		1.2	0.75
Sodium		250		42	110
Barium		43		0.032	0.21
Vanadium		48		0.51	0.75
Cobalt		13		0.020	0.21

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76-2

Lab Sample ID: 580-28720-18 Date Sampled: 09/15/2011 1450
Client Matrix: Solid % Moisture: 9.3 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6475 g
Analysis Date:	09/28/2011 1420			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.81		0.0054	0.017

Client Sample ID: W-22

Lab Sample ID: 580-28720-19 Date Sampled: 09/12/2011 1410
Client Matrix: Solid % Moisture: 35.8 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0149 g
Analysis Date:	09/24/2011 1823			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		210	J	25	250
Calcium		200		4.8	84
Magnesium		970		4.9	84

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0149 g
Analysis Date:	09/24/2011 1830			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		32000		94	1500

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	060SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0149 g
Analysis Date:	09/27/2011 1217			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		18000		4.6	46
Antimony		0.47		0.064	0.31
Arsenic		20		0.28	0.77
Beryllium		0.099	J	0.034	0.31
Cadmium		0.25	J	0.012	0.31
Chromium		26		0.17	0.31
Copper		14		0.15	0.31
Lead		14		0.020	0.31
Manganese		86		0.26	0.77
Nickel		9.5		0.31	0.31
Selenium		0.72	J	0.31	1.1
Silver		0.52		0.018	0.31
Thallium		0.31	J	0.20	0.77
Zinc		24		1.7	1.1
Sodium		150		60	150
Barium		25		0.046	0.31
Vanadium		59		0.73	1.1
Cobalt		2.4		0.029	0.31

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-22

Lab Sample ID: 580-28720-19 Date Sampled: 09/12/2011 1410
Client Matrix: Solid % Moisture: 35.8 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6849 g
Analysis Date:	09/28/2011 1307			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.24		0.0072	0.023

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-3

Lab Sample ID: 580-28720-20 Date Sampled: 09/12/2011 1600
Client Matrix: Solid % Moisture: 37.0 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0332 g
Analysis Date:	09/24/2011 1837			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		400		25	250
Calcium		330		4.8	85
Magnesium		2300		4.9	85

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0332 g
Analysis Date:	09/24/2011 1843			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		20000		94	1500

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	061SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0332 g
Analysis Date:	09/27/2011 1221			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		15000		4.6	46
Antimony		0.48		0.065	0.31
Arsenic		17		0.28	0.77
Beryllium		0.16	J	0.034	0.31
Cadmium		0.30	J	0.012	0.31
Chromium		27		0.17	0.31
Copper		19		0.15	0.31
Lead		27		0.020	0.31
Manganese		210		0.26	0.77
Nickel		17		0.31	0.31
Selenium		1.0	J	0.31	1.1
Silver		0.79		0.018	0.31
Thallium		0.22	J	0.20	0.77
Zinc		66		1.7	1.1
Sodium		83	J	60	150
Barium		37		0.046	0.31
Vanadium		54		0.73	1.1
Cobalt		4.0		0.029	0.31

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-3

Lab Sample ID: 580-28720-20 Date Sampled: 09/12/2011 1600
Client Matrix: Solid % Moisture: 37.0 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7493 g
Analysis Date:	09/28/2011 1314			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.13		0.0067	0.021

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-19

Lab Sample ID: 580-28720-21 Date Sampled: 09/12/2011 1037
Client Matrix: Solid % Moisture: 40.2 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method: 6010B Analysis Batch: 580-96078 Instrument ID: TAC047
Prep Method: 3050B Prep Batch: 580-96028 Lab File ID: 580-95937-96028.asc
Dilution: 1.0 Initial Weight/Volume: 1.1052 g
Analysis Date: 09/24/2011 1850 Final Weight/Volume: 50 mL
Prep Date: 09/23/2011 1450

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		680		24	250
Calcium		300		4.7	83
Magnesium		8100		4.8	83

Analysis Method: 6010B Analysis Batch: 580-96078 Instrument ID: TAC047
Prep Method: 3050B Prep Batch: 580-96028 Lab File ID: 580-95937-96028.asc
Dilution: 100 Initial Weight/Volume: 1.1052 g
Analysis Date: 09/24/2011 1857 Final Weight/Volume: 50 mL
Prep Date: 09/23/2011 1450

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		56000		92	1500

6020 Metals (ICP/MS)

Analysis Method: 6020 Analysis Batch: 580-96277 Instrument ID: SEA044
Prep Method: 3050B Prep Batch: 580-96028 Lab File ID: 066SMPL.D#.raw
Dilution: 10 Initial Weight/Volume: 1.1052 g
Analysis Date: 09/27/2011 1243 Final Weight/Volume: 50 mL
Prep Date: 09/23/2011 1450

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		38000		4.5	45
Antimony		0.87		0.064	0.30
Arsenic		62		0.27	0.76
Beryllium		0.93		0.033	0.30
Cadmium		0.20	J	0.012	0.30
Chromium		81		0.17	0.30
Copper		79		0.15	0.30
Lead		22		0.020	0.30
Manganese		670		0.26	0.76
Nickel		110		0.31	0.30
Selenium		1.6		0.31	1.1
Silver		0.29	J	0.018	0.30
Thallium		0.26	J	0.20	0.76
Zinc		140		1.7	1.1
Sodium		110	J	59	150
Barium		120		0.045	0.30
Vanadium		86		0.72	1.1
Cobalt		24		0.029	0.30

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-19

Lab Sample ID: 580-28720-21 Date Sampled: 09/12/2011 1037
Client Matrix: Solid % Moisture: 40.2 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7497 g
Analysis Date:	09/28/2011 1316			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.16		0.0070	0.022

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-2

Lab Sample ID: 580-28720-22 Date Sampled: 09/12/2011 1700
Client Matrix: Solid % Moisture: 37.5 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0856 g
Analysis Date:	09/24/2011 1904			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		150	J	24	240
Calcium		240		4.6	81
Magnesium		1100		4.7	81

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0856 g
Analysis Date:	09/24/2011 1911			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		20000		90	1500

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	067SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0856 g
Analysis Date:	09/27/2011 1248			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		17000		4.4	44
Antimony		0.17	J	0.062	0.29
Arsenic		9.3		0.27	0.74
Beryllium		0.15	J	0.032	0.29
Cadmium		0.13	J	0.012	0.29
Chromium		19		0.17	0.29
Copper		11		0.14	0.29
Lead		5.5		0.019	0.29
Manganese		83		0.25	0.74
Nickel		9.6		0.30	0.29
Selenium		0.73	J	0.30	1.0
Silver		0.29		0.018	0.29
Thallium		ND		0.19	0.74
Zinc		20		1.7	1.0
Sodium		98	J	58	150
Barium		27		0.044	0.29
Vanadium		48		0.70	1.0
Cobalt		2.3		0.028	0.29

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-2

Lab Sample ID: 580-28720-22 Date Sampled: 09/12/2011 1700
Client Matrix: Solid % Moisture: 37.5 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7575 g
Analysis Date:	09/28/2011 1321			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.21		0.0067	0.021

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-16

Lab Sample ID: 580-28720-23 Date Sampled: 09/12/2011 1540
Client Matrix: Solid % Moisture: 34.2 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0839 g
Analysis Date:	09/24/2011 1937			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		460		22	230
Calcium		830		4.3	77
Magnesium		5700		4.5	77

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0839 g
Analysis Date:	09/24/2011 1944			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		28000		86	1400

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	068SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0839 g
Analysis Date:	09/27/2011 1252			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		27000		4.2	42
Antimony		0.36		0.059	0.28
Arsenic		18		0.25	0.70
Beryllium		0.36		0.031	0.28
Cadmium		0.32		0.011	0.28
Chromium		55		0.16	0.28
Copper		36		0.14	0.28
Lead		12		0.018	0.28
Manganese		410		0.24	0.70
Nickel		41		0.28	0.28
Selenium		0.95	J	0.28	0.98
Silver		0.34		0.017	0.28
Thallium		ND		0.18	0.70
Zinc		66		1.6	0.98
Sodium		110	J	55	140
Barium		76		0.042	0.28
Vanadium		61		0.66	0.98
Cobalt		9.9		0.027	0.28

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-16

Lab Sample ID: 580-28720-23 Date Sampled: 09/12/2011 1540
Client Matrix: Solid % Moisture: 34.2 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6625 g
Analysis Date:	09/28/2011 1323			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.14		0.0072	0.023

Client Sample ID: W-7

Lab Sample ID: 580-28720-24 Date Sampled: 09/12/2011 1620
Client Matrix: Solid % Moisture: 31.9 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0595 g
Analysis Date:	09/24/2011 1951			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		6400		0.85	14
Potassium		58	J	22	230
Calcium		150		4.3	76
Magnesium		180		4.4	76

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	069SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0595 g
Analysis Date:	09/27/2011 1256			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4500		4.2	42
Antimony		0.11	J	0.058	0.28
Arsenic		3.7		0.25	0.69
Beryllium		0.066	J	0.030	0.28
Cadmium		0.085	J	0.011	0.28
Chromium		5.2		0.16	0.28
Copper		6.9		0.14	0.28
Lead		5.1		0.018	0.28
Manganese		30		0.24	0.69
Nickel		3.6		0.28	0.28
Selenium		0.30	J	0.28	0.97
Silver		0.19	J	0.017	0.28
Thallium		ND		0.18	0.69
Zinc		13		1.6	0.97
Sodium		150		54	140
Barium		14		0.042	0.28
Vanadium		22		0.66	0.97
Cobalt		1.3		0.026	0.28

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7636 g
Analysis Date:	09/28/2011 1324			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.061		0.0061	0.019

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **W-7**

Lab Sample ID: 580-28720-24 Date Sampled: 09/12/2011 1620
Client Matrix: Solid % Moisture: 31.9 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-21

Lab Sample ID: 580-28720-25 Date Sampled: 09/12/2011 1300
Client Matrix: Solid % Moisture: 28.1 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.1227 g
Analysis Date:	09/24/2011 2005			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		400		20	200
Calcium		540		3.8	68
Magnesium		2700		4.0	68

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.1227 g
Analysis Date:	09/24/2011 2011			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		26000		76	1200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	070SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1227 g
Analysis Date:	09/27/2011 1301			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		24000		3.7	37
Antimony		0.44		0.052	0.25
Arsenic		28		0.22	0.62
Beryllium		0.44		0.027	0.25
Cadmium		0.21	J	0.0099	0.25
Chromium		32		0.14	0.25
Copper		19		0.12	0.25
Lead		26		0.016	0.25
Manganese		150		0.21	0.62
Nickel		21		0.25	0.25
Selenium		1.1		0.25	0.87
Silver		0.19	J	0.015	0.25
Thallium		ND		0.16	0.62
Zinc		46		1.4	0.87
Sodium		110	J	49	120
Barium		41		0.037	0.25
Vanadium		64		0.59	0.87
Cobalt		5.4		0.024	0.25

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-21

Lab Sample ID: 580-28720-25 Date Sampled: 09/12/2011 1300
Client Matrix: Solid % Moisture: 28.1 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6641 g
Analysis Date:	09/28/2011 1326			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.23		0.0066	0.021

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-23

Lab Sample ID: 580-28720-26 Date Sampled: 09/12/2011 1445
Client Matrix: Solid % Moisture: 40.8 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0654 g
Analysis Date:	09/24/2011 2018			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		10000		0.97	16
Potassium		130	J	25	260
Calcium		130		4.9	87
Magnesium		260		5.1	87

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	071SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0654 g
Analysis Date:	09/27/2011 1305			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		4400		4.8	48
Antimony		0.22	J	0.067	0.32
Arsenic		28		0.29	0.79
Beryllium		0.055	J	0.035	0.32
Cadmium		0.084	J	0.013	0.32
Chromium		29		0.18	0.32
Copper		15		0.16	0.32
Lead		3.6		0.021	0.32
Manganese		43		0.27	0.79
Nickel		9.4		0.32	0.32
Selenium		ND		0.32	1.1
Silver		0.11	J	0.019	0.32
Thallium		ND		0.21	0.79
Zinc		16		1.8	1.1
Sodium		110	J	62	160
Barium		16		0.048	0.32
Vanadium		65		0.75	1.1
Cobalt		2.0		0.030	0.32

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6454 g
Analysis Date:	09/28/2011 1328			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.11		0.0082	0.026

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **W-23**

Lab Sample ID: 580-28720-26 Date Sampled: 09/12/2011 1445
Client Matrix: Solid % Moisture: 40.8 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-18

Lab Sample ID: 580-28720-27 Date Sampled: 09/12/2011 1116
Client Matrix: Solid % Moisture: 43.0 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0378 g
Analysis Date:	09/24/2011 2032			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		410		27	280
Calcium		530		5.2	93
Magnesium		3600		5.4	93

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0378 g
Analysis Date:	09/24/2011 2039			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		26000		100	1700

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	072SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0378 g
Analysis Date:	09/27/2011 1309			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		28000		5.1	51
Antimony		0.55		0.071	0.34
Arsenic		25		0.30	0.85
Beryllium		0.43		0.037	0.34
Cadmium		0.40		0.014	0.34
Chromium		33		0.19	0.34
Copper		23		0.17	0.34
Lead		29		0.022	0.34
Manganese		180		0.29	0.85
Nickel		26		0.34	0.34
Selenium		1.2		0.34	1.2
Silver		0.15	J	0.020	0.34
Thallium		ND		0.22	0.85
Zinc		53		1.9	1.2
Sodium		94	J	66	170
Barium		46		0.051	0.34
Vanadium		55		0.80	1.2
Cobalt		6.0		0.032	0.34

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-18

Lab Sample ID: 580-28720-27 Date Sampled: 09/12/2011 1116
Client Matrix: Solid % Moisture: 43.0 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7018 g
Analysis Date:	09/28/2011 1329			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.27		0.0079	0.025

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-1

Lab Sample ID: 580-28720-28 Date Sampled: 09/12/2011 1510
Client Matrix: Solid % Moisture: 41.6 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.1199 g
Analysis Date:	09/24/2011 2102			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		570		24	250
Calcium		720		4.7	84
Magnesium		5600		4.9	84

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.1199 g
Analysis Date:	09/24/2011 2109			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		32000		93	1500

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	073SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1199 g
Analysis Date:	09/27/2011 1314			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		32000		4.6	46
Antimony		0.32		0.064	0.31
Arsenic		17		0.28	0.76
Beryllium		0.51		0.034	0.31
Cadmium		0.39		0.012	0.31
Chromium		62		0.17	0.31
Copper		34		0.15	0.31
Lead		17		0.020	0.31
Manganese		520		0.26	0.76
Nickel		39		0.31	0.31
Selenium		1.3		0.31	1.1
Silver		0.61		0.018	0.31
Thallium		ND		0.20	0.76
Zinc		65		1.7	1.1
Sodium		130	J	60	150
Barium		80		0.046	0.31
Vanadium		75		0.72	1.1
Cobalt		11		0.029	0.31

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-1

Lab Sample ID: 580-28720-28 Date Sampled: 09/12/2011 1510
Client Matrix: Solid % Moisture: 41.6 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6628 g
Analysis Date:	09/28/2011 1331			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.15		0.0081	0.026

Client Sample ID: **W-17**

Lab Sample ID: 580-28720-29 Date Sampled: 09/12/2011 1205
Client Matrix: Solid % Moisture: 39.6 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0412 g
Analysis Date:	09/24/2011 2116			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		340		25	260
Calcium		730		4.9	87
Magnesium		4300		5.1	87

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0412 g
Analysis Date:	09/24/2011 2123			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		32000		97	1600

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	078SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0412 g
Analysis Date:	09/27/2011 1336			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		29000		4.8	48
Antimony		0.30	J	0.067	0.32
Arsenic		17		0.29	0.80
Beryllium		0.73		0.035	0.32
Cadmium		0.30	J	0.013	0.32
Chromium		44		0.18	0.32
Copper		21		0.16	0.32
Lead		10		0.021	0.32
Manganese		320		0.27	0.80
Nickel		31		0.32	0.32
Selenium		1.2		0.32	1.1
Silver		0.21	J	0.019	0.32
Thallium		ND		0.21	0.80
Zinc		48		1.8	1.1
Sodium		110	J	62	160
Barium		52		0.048	0.32
Vanadium		65		0.75	1.1
Cobalt		11		0.030	0.32

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: W-17

Lab Sample ID: 580-28720-29 Date Sampled: 09/12/2011 1205
Client Matrix: Solid % Moisture: 39.6 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6604 g
Analysis Date:	09/28/2011 1333			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.13		0.0079	0.025

Client Sample ID: G-9

Lab Sample ID: 580-28720-30 Date Sampled: 09/14/2011 1425
Client Matrix: Solid % Moisture: 14.9 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0549 g
Analysis Date:	09/24/2011 2130			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1400		18	180
Calcium		1900		3.5	61
Magnesium		5700		3.6	61

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0549 g
Analysis Date:	09/24/2011 2137			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		49000		68	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	079SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0549 g
Analysis Date:	09/27/2011 1340			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		22000		3.3	33
Antimony		7.2		0.047	0.22
Arsenic		380		0.20	0.56
Beryllium		0.37		0.025	0.22
Cadmium		0.62		0.0089	0.22
Chromium		12		0.13	0.22
Copper		190		0.11	0.22
Lead		91		0.014	0.22
Manganese		2400		0.19	0.56
Nickel		7.2		0.23	0.22
Selenium		1.8		0.22	0.78
Silver		0.71		0.013	0.22
Thallium		0.28	J	0.14	0.56
Zinc		270		1.2	0.78
Sodium		320		44	110
Barium		72		0.033	0.22
Vanadium		87		0.53	0.78
Cobalt		50		0.021	0.22

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-9

Lab Sample ID: 580-28720-30 Date Sampled: 09/14/2011 1425
Client Matrix: Solid % Moisture: 14.9 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6907 g
Analysis Date:	09/28/2011 1334			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.10		0.0054	0.017

Client Sample ID: G-12

Lab Sample ID: 580-28720-31 Date Sampled: 09/14/2011 1605
Client Matrix: Solid % Moisture: 25.8 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.1415 g
Analysis Date:	09/24/2011 2145			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1400		19	190
Calcium		1200		3.7	65
Magnesium		5000		3.8	65

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.1415 g
Analysis Date:	09/24/2011 2152			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		55000		72	1200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	080SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1415 g
Analysis Date:	09/27/2011 1344			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		20000		3.5	35
Antimony		6.5		0.050	0.24
Arsenic		260		0.21	0.59
Beryllium		0.29		0.026	0.24
Cadmium		0.59		0.0094	0.24
Chromium		11		0.13	0.24
Copper		200		0.12	0.24
Lead		80		0.015	0.24
Manganese		1800		0.20	0.59
Nickel		6.6		0.24	0.24
Selenium		2.0		0.24	0.83
Silver		0.79		0.014	0.24
Thallium		0.27	J	0.15	0.59
Zinc		150		1.3	0.83
Sodium		280		46	120
Barium		73		0.035	0.24
Vanadium		82		0.56	0.83
Cobalt		34		0.022	0.24

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-12

Lab Sample ID: 580-28720-31 Date Sampled: 09/14/2011 1605
Client Matrix: Solid % Moisture: 25.8 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6653 g
Analysis Date:	09/28/2011 1336			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.11		0.0064	0.020

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-8

Lab Sample ID: 580-28720-32 Date Sampled: 09/14/2011 1410
Client Matrix: Solid % Moisture: 17.3 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0352 g
Analysis Date:	09/24/2011 2158			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		610		19	190
Calcium		360		3.6	64
Magnesium		5200		3.7	64

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0352 g
Analysis Date:	09/24/2011 2205			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		30000		71	1200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	081SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0352 g
Analysis Date:	09/27/2011 1349			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		27000		3.5	35
Antimony		2.9		0.049	0.23
Arsenic		160		0.21	0.58
Beryllium		0.36		0.026	0.23
Cadmium		0.28		0.0093	0.23
Chromium		71		0.13	0.23
Copper		76		0.11	0.23
Lead		53		0.015	0.23
Manganese		1200		0.20	0.58
Nickel		49		0.24	0.23
Selenium		1.2		0.24	0.82
Silver		0.40		0.014	0.23
Thallium		0.31	J	0.15	0.58
Zinc		180		1.3	0.82
Sodium		95	J	46	120
Barium		36		0.035	0.23
Vanadium		69		0.55	0.82
Cobalt		7.8		0.022	0.23

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-8

Lab Sample ID: 580-28720-32 Date Sampled: 09/14/2011 1410
Client Matrix: Solid % Moisture: 17.3 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6260 g
Analysis Date:	09/28/2011 1341			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.19		0.0061	0.019

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76 S-2 6-12

Lab Sample ID: 580-28720-33 Date Sampled: 09/13/2011 1740
Client Matrix: Solid % Moisture: 7.3 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.0037 g
Analysis Date:	09/24/2011 2231			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		870		17	180
Calcium		1100		3.3	59
Magnesium		590		3.4	59

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.0037 g
Analysis Date:	09/24/2011 2238			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		74000		66	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	082SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0037 g
Analysis Date:	09/27/2011 1353			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		2400		3.2	32
Antimony		160		0.045	0.21
Beryllium		0.30		0.024	0.21
Cadmium		16		0.0086	0.21
Chromium		1.2		0.12	0.21
Copper		170		0.11	0.21
Lead		830		0.014	0.21
Nickel		5.6		0.22	0.21
Selenium		0.58	J	0.22	0.75
Silver		8.2		0.013	0.21
Thallium		0.56		0.14	0.54
Zinc		2200		1.2	0.75
Sodium		ND		42	110
Barium		21		0.032	0.21
Vanadium		14		0.51	0.75
Cobalt		17		0.020	0.21

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 76 S-2 6-12

Lab Sample ID: 580-28720-33 Date Sampled: 09/13/2011 1740
Client Matrix: Solid % Moisture: 7.3 Date Received: 09/20/2011 1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	084SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.0037 g
Analysis Date:	09/27/2011 1402			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		10000		19	54
Manganese		5600		18	54

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.7442 g
Analysis Date:	09/28/2011 1437			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.0		0.046	0.14

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-7

Lab Sample ID: 580-28720-34 Date Sampled: 09/14/2011 1330
Client Matrix: Solid % Moisture: 9.9 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0			Initial Weight/Volume:	1.1154 g
Analysis Date:	09/24/2011 2245			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		350		16	160
Calcium		560		3.1	55
Magnesium		2200		3.2	55

Analysis Method:	6010B	Analysis Batch:	580-96078	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	100			Initial Weight/Volume:	1.1154 g
Analysis Date:	09/24/2011 2252			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		24000		61	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96028	Lab File ID:	083SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1154 g
Analysis Date:	09/27/2011 1357			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		13000		3.0	30
Antimony		2.9		0.042	0.20
Arsenic		150		0.18	0.50
Beryllium		0.084	J	0.022	0.20
Cadmium		0.20		0.0080	0.20
Chromium		7.4		0.11	0.20
Copper		26		0.098	0.20
Lead		20		0.013	0.20
Manganese		190		0.17	0.50
Nickel		3.3		0.20	0.20
Selenium		0.34	J	0.20	0.70
Silver		0.33		0.012	0.20
Thallium		ND		0.13	0.50
Zinc		55		1.1	0.70
Sodium		150		39	100
Barium		19		0.030	0.20
Vanadium		64		0.47	0.70
Cobalt		3.9		0.019	0.20

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-7

Lab Sample ID: 580-28720-34 Date Sampled: 09/14/2011 1330
Client Matrix: Solid % Moisture: 9.9 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6376 g
Analysis Date:	09/28/2011 1345			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.037		0.0055	0.017

Client Sample ID: G-11

Lab Sample ID: 580-28720-35 Date Sampled: 09/14/2011 1315
Client Matrix: Solid % Moisture: 23.3 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0			Initial Weight/Volume:	1.0046 g
Analysis Date:	09/26/2011 1710			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1300		21	210
Calcium		1800		4.0	71
Magnesium		5300		4.2	71

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	100			Initial Weight/Volume:	1.0046 g
Analysis Date:	09/26/2011 1803			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		35000	B	79	1300

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	032SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0046 g
Analysis Date:	09/27/2011 1012			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		17000		3.9	39
Antimony		8.2		0.055	0.26
Arsenic		230		0.23	0.65
Beryllium		0.16	J	0.029	0.26
Cadmium		0.78		0.010	0.26
Chromium		11		0.15	0.26
Copper		140		0.13	0.26
Lead		88		0.017	0.26
Manganese		1300		0.22	0.65
Nickel		8.2		0.26	0.26
Selenium		1.2		0.26	0.91
Silver		1.9		0.016	0.26
Thallium		0.31	J	0.17	0.65
Zinc		160		1.5	0.91
Sodium		390		51	130
Barium		52		0.039	0.26
Vanadium		79		0.61	0.91
Cobalt		19		0.025	0.26

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-11

Lab Sample ID: 580-28720-35 Date Sampled: 09/14/2011 1315
Client Matrix: Solid % Moisture: 23.3 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6657 g
Analysis Date:	09/28/2011 1347			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.11		0.0062	0.020

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-6

Lab Sample ID: 580-28720-36 Date Sampled: 09/14/2011 1430
Client Matrix: Solid % Moisture: 31.5 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0			Initial Weight/Volume:	1.1423 g
Analysis Date:	09/26/2011 1810			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		400		20	210
Calcium		300		4.0	70
Magnesium		2400		4.1	70

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	100			Initial Weight/Volume:	1.1423 g
Analysis Date:	09/26/2011 1817			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		22000	B	78	1300

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	037SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1423 g
Analysis Date:	09/27/2011 1034			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		23000		3.8	38
Antimony		2.7		0.054	0.26
Arsenic		100		0.23	0.64
Beryllium		0.26		0.028	0.26
Cadmium		0.37		0.010	0.26
Chromium		25		0.14	0.26
Copper		51		0.13	0.26
Lead		59		0.017	0.26
Manganese		180		0.22	0.64
Nickel		10		0.26	0.26
Selenium		1.1		0.26	0.89
Silver		0.62		0.015	0.26
Thallium		0.30	J	0.17	0.64
Zinc		61		1.4	0.89
Sodium		120	J	50	130
Barium		23		0.038	0.26
Vanadium		50		0.60	0.89
Cobalt		5.0		0.024	0.26

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-6

Lab Sample ID: 580-28720-36 Date Sampled: 09/14/2011 1430
Client Matrix: Solid % Moisture: 31.5 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6369 g
Analysis Date:	09/28/2011 1359			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.23		0.0072	0.023

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 74 S-2 0-6

Lab Sample ID: 580-28720-37 Date Sampled: 09/15/2011 1320
Client Matrix: Solid % Moisture: 13.7 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0			Initial Weight/Volume:	1.0313 g
Analysis Date:	09/26/2011 1824			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		2100		18	190
Calcium		3100		3.5	62
Magnesium		6400		3.6	62

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	100			Initial Weight/Volume:	1.0313 g
Analysis Date:	09/26/2011 1830			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		69000	B	69	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	038SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0313 g
Analysis Date:	09/27/2011 1038			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		15000		3.4	34
Antimony		17		0.047	0.22
Beryllium		0.49		0.025	0.22
Cadmium		15		0.0090	0.22
Chromium		14		0.13	0.22
Copper		170		0.11	0.22
Nickel		24		0.23	0.22
Selenium		1.8		0.23	0.79
Silver		20		0.013	0.22
Thallium		0.36	J	0.15	0.56
Sodium		240		44	110
Barium		73		0.034	0.22
Vanadium		39		0.53	0.79
Cobalt		26		0.021	0.22

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	062SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.0313 g
Analysis Date:	09/27/2011 1226			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **74 S-2 0-6**

Lab Sample ID: 580-28720-37 Date Sampled: 09/15/2011 1320
Client Matrix: Solid % Moisture: 13.7 Date Received: 09/20/2011 1100

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		5100		20	56
Lead		3600		1.5	22
Manganese		4600		19	56
Zinc		2600		130	79

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7924 g
Analysis Date:	09/28/2011 1406			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.33		0.0046	0.015

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 74 S-1 0-6

Lab Sample ID: 580-28720-38 Date Sampled: 09/15/2011 1310
Client Matrix: Solid % Moisture: 26.6 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0			Initial Weight/Volume:	1.0692 g
Analysis Date:	09/26/2011 1837			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1800		20	210
Calcium		1300		4.0	70
Magnesium		6200		4.1	70

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	100			Initial Weight/Volume:	1.0692 g
Analysis Date:	09/26/2011 1844			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		57000	B	78	1300

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	039SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0692 g
Analysis Date:	09/27/2011 1042			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		22000		3.8	38
Antimony		6.0		0.054	0.25
Arsenic		2600		0.23	0.64
Beryllium		0.60		0.028	0.25
Cadmium		7.7		0.010	0.25
Chromium		14		0.14	0.25
Copper		110		0.12	0.25
Lead		1300		0.017	0.25
Nickel		20		0.26	0.25
Selenium		1.6		0.26	0.89
Silver		5.1		0.015	0.25
Thallium		0.36	J	0.17	0.64
Zinc		1200		1.4	0.89
Sodium		130		50	130
Barium		52		0.038	0.25
Vanadium		51		0.60	0.89
Cobalt		32		0.024	0.25

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: 74 S-1 0-6

Lab Sample ID: 580-28720-38 Date Sampled: 09/15/2011 1310
Client Matrix: Solid % Moisture: 26.6 Date Received: 09/20/2011 1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	063SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.0692 g
Analysis Date:	09/27/2011 1230			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Manganese		5900		22	64

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.8306 g
Analysis Date:	09/28/2011 1408			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.30		0.0052	0.016

Client Sample ID: G-10

Lab Sample ID: 580-28720-39 Date Sampled: 09/14/2011 1525
Client Matrix: Solid % Moisture: 22.6 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0			Initial Weight/Volume:	1.1180 g
Analysis Date:	09/26/2011 1851			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1500		18	190
Calcium		890		3.6	64
Magnesium		5600		3.7	64

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	100			Initial Weight/Volume:	1.1180 g
Analysis Date:	09/26/2011 1858			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		45000	B	71	1200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	040SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1180 g
Analysis Date:	09/27/2011 1047			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		20000		3.5	35
Antimony		4.1		0.049	0.23
Arsenic		180		0.21	0.58
Beryllium		0.13	J	0.025	0.23
Cadmium		0.48		0.0092	0.23
Chromium		11		0.13	0.23
Copper		130		0.11	0.23
Lead		53		0.015	0.23
Manganese		980		0.20	0.58
Nickel		5.3		0.23	0.23
Selenium		2.1		0.23	0.81
Silver		0.69		0.014	0.23
Thallium		0.33	J	0.15	0.58
Zinc		71		1.3	0.81
Sodium		250		45	120
Barium		47		0.035	0.23
Vanadium		95		0.55	0.81
Cobalt		17		0.022	0.23

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: G-10

Lab Sample ID: 580-28720-39 Date Sampled: 09/14/2011 1525
Client Matrix: Solid % Moisture: 22.6 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6581 g
Analysis Date:	09/28/2011 1413			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.098		0.0062	0.020

Client Sample ID: **Emma 2 S-2 6-12**

Lab Sample ID: 580-28720-40 Date Sampled: 09/15/2011 1330
Client Matrix: Solid % Moisture: 10.6 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0			Initial Weight/Volume:	1.1531 g
Analysis Date:	09/26/2011 1921			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1100		16	160
Calcium		680		3.0	53
Magnesium		6600		3.1	53

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	100			Initial Weight/Volume:	1.1531 g
Analysis Date:	09/26/2011 1928			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		75000	B	59	970

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	043SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1531 g
Analysis Date:	09/27/2011 1100			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		12000		2.9	29
Antimony		3.4		0.041	0.19
Arsenic		2200		0.17	0.49
Beryllium		0.27		0.021	0.19
Cadmium		2.8		0.0078	0.19
Chromium		15		0.11	0.19
Copper		140		0.095	0.19
Lead		870		0.013	0.19
Manganese		2100		0.16	0.49
Nickel		19		0.20	0.19
Selenium		0.99		0.20	0.68
Silver		7.6		0.012	0.19
Thallium		0.19	J	0.13	0.49
Zinc		1500		1.1	0.68
Sodium		42	J	38	97
Barium		31		0.029	0.19
Vanadium		33		0.46	0.68
Cobalt		13		0.018	0.19

7471A Mercury (CVAA)

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **Emma 2 S-2 6-12**

Lab Sample ID: 580-28720-40 Date Sampled: 09/15/2011 1330
Client Matrix: Solid % Moisture: 10.6 Date Received: 09/20/2011 1100

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6998 g
Analysis Date:	09/28/2011 1415			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.56		0.0050	0.016

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **Emma 2 S-1 0-6**

Lab Sample ID: 580-28720-41 Date Sampled: 09/15/2011 1300
Client Matrix: Solid % Moisture: 21.1 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0			Initial Weight/Volume:	1.1379 g
Analysis Date:	09/26/2011 1935			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		900		18	180
Calcium		1700		3.5	61
Magnesium		4600		3.6	61

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	100			Initial Weight/Volume:	1.1379 g
Analysis Date:	09/26/2011 1941			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		72000	B	68	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	044SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1379 g
Analysis Date:	09/27/2011 1104			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		21000		3.3	33
Antimony		5.9		0.047	0.22
Beryllium		0.63		0.025	0.22
Cadmium		17		0.0089	0.22
Chromium		15		0.13	0.22
Copper		290		0.11	0.22
Lead		1400		0.014	0.22
Nickel		21		0.23	0.22
Selenium		1.6		0.23	0.78
Silver		11		0.013	0.22
Thallium		0.26	J	0.14	0.56
Zinc		2100		1.2	0.78
Sodium		87	J	44	110
Barium		57		0.033	0.22
Vanadium		50		0.53	0.78
Cobalt		44		0.021	0.22

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **Emma 2 S-1 0-6**

Lab Sample ID: 580-28720-41 Date Sampled: 09/15/2011 1300
Client Matrix: Solid % Moisture: 21.1 Date Received: 09/20/2011 1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	074SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.1379 g
Analysis Date:	09/27/2011 1318			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2800		20	56
Manganese		5400		19	56

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6530 g
Analysis Date:	09/28/2011 1417			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.49		0.0061	0.019

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: **Emma 2 S-2 0-6**

Lab Sample ID: 580-28720-42 Date Sampled: 09/15/2011 1320
Client Matrix: Solid % Moisture: 8.5 Date Received: 09/20/2011 1100

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0			Initial Weight/Volume:	1.0146 g
Analysis Date:	09/26/2011 1948			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1400		17	180
Calcium		710		3.3	59
Magnesium		6500		3.4	59

Analysis Method:	6010B	Analysis Batch:	580-96226	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	100			Initial Weight/Volume:	1.0146 g
Analysis Date:	09/26/2011 1955			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		76000	B	66	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	045SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0146 g
Analysis Date:	09/27/2011 1108			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		12000		3.2	32
Antimony		3.8		0.045	0.22
Beryllium		0.26		0.024	0.22
Cadmium		1.5		0.0086	0.22
Chromium		18		0.12	0.22
Copper		140		0.11	0.22
Lead		860		0.014	0.22
Manganese		1900		0.18	0.54
Nickel		18		0.22	0.22
Selenium		0.88		0.22	0.75
Silver		5.8		0.013	0.22
Thallium		0.17	J	0.14	0.54
Zinc		1300		1.2	0.75
Sodium		42	J	42	110
Barium		37		0.032	0.22
Vanadium		34		0.51	0.75
Cobalt		13		0.020	0.22

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Client Sample ID: Emma 2 S-2 0-6

Lab Sample ID: 580-28720-42 Date Sampled: 09/15/2011 1320
Client Matrix: Solid % Moisture: 8.5 Date Received: 09/20/2011 1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-96277	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-96039	Lab File ID:	075SMPL.D#.raw
Dilution:	1000			Initial Weight/Volume:	1.0146 g
Analysis Date:	09/27/2011 1323			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		2400		19	54

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.7030 g
Analysis Date:	09/28/2011 1419			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.51		0.0049	0.016

General Chemistry

Client Sample ID: **76 S-2 0-6**

Lab Sample ID: 580-28720-1 Date Sampled: 09/13/2011 1730
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	7.30		SU	1.0	9045C
Analysis Batch: 580-95870	Analysis Date: 09/22/2011 0821				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	93		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	6.9		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: 76 S-1 0-6

Lab Sample ID: 580-28720-2 Date Sampled: 09/13/2011 1640
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	6.46		SU	1.0	9045C
Analysis Batch: 580-95870	Analysis Date: 09/22/2011 0821			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	70		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	
Percent Moisture	30		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	

General Chemistry

Client Sample ID: 76-9

Lab Sample ID: 580-28720-3 Date Sampled: 09/16/2011 1215
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.43		SU	1.0	9045C
Analysis Batch: 580-95870	Analysis Date: 09/22/2011 0821			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	57		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	
Percent Moisture	43		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	

General Chemistry

Client Sample ID: 76-14

Lab Sample ID: 580-28720-4 Date Sampled: 09/16/2011 1350
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.41		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	57		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	
Percent Moisture	43		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	

General Chemistry

Client Sample ID: 76-15

Lab Sample ID: 580-28720-5 Date Sampled: 09/16/2011 1320
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.04		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	62		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	38		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: 76-12

Lab Sample ID: 580-28720-6 Date Sampled: 09/16/2011 1105
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.92		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	50		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	
Percent Moisture	50		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	

General Chemistry

Client Sample ID: **76-18**

Lab Sample ID: 580-28720-7 Date Sampled: 09/16/2011 1030
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.07		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	65		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	
Percent Moisture	35		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	

General Chemistry

Client Sample ID: **76-17**

Lab Sample ID: 580-28720-8 Date Sampled: 09/16/2011 1100
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.06		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	59		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	
Percent Moisture	41		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	

General Chemistry

Client Sample ID: 76-13

Lab Sample ID: 580-28720-9 Date Sampled: 09/16/2011 1040
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.77		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	37		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	63		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: 76-16

Lab Sample ID: 580-28720-10 Date Sampled: 09/16/2011 1145
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.81		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	73		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	27		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: 76-10

Lab Sample ID: 580-28720-11 Date Sampled: 09/16/2011 0945
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.31		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	61		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	39		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: 76-1

Lab Sample ID: 580-28720-12 Date Sampled: 09/13/2011 1630
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.72		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: 76-4

Lab Sample ID: 580-28720-13 Date Sampled: 09/16/2011 1405
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.21		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	61		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	39		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: **76-11**

Lab Sample ID: 580-28720-14 Date Sampled: 09/15/2011 1550
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.83		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	92		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	8.0		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: 76-5

Lab Sample ID: 580-28720-15 Date Sampled: 09/16/2011 1335
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.05		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	67		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	33		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: 76-3

Lab Sample ID: 580-28720-16 Date Sampled: 09/13/2011 1345
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.85		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	81		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	
Percent Moisture	19		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	

General Chemistry

Client Sample ID: 76-6

Lab Sample ID: 580-28720-17 Date Sampled: 09/16/2011 1300
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.97		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	52		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	
Percent Moisture	48		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816					DryWt Corrected: N	

General Chemistry

Client Sample ID: 76-2

Lab Sample ID: 580-28720-18
Client Matrix: Solid

Date Sampled: 09/15/2011 1450
Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.59		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	91		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	9.3		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: W-22

Lab Sample ID: 580-28720-19 Date Sampled: 09/12/2011 1410
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.56		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	64		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	36		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-3**

Lab Sample ID: 580-28720-20 Date Sampled: 09/12/2011 1600
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.57		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	63		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N
Percent Moisture	37		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95951	Analysis Date: 09/23/2011 0816						DryWt Corrected: N

General Chemistry

Client Sample ID: **W-19**

Lab Sample ID: 580-28720-21 Date Sampled: 09/12/2011 1037
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.02		SU	1.0	9045C
Analysis Batch: 580-96753	Analysis Date: 10/03/2011 1441				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	60		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911						DryWt Corrected: N
Percent Moisture	40		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911						DryWt Corrected: N

General Chemistry

Client Sample ID: W-2

Lab Sample ID: 580-28720-22 Date Sampled: 09/12/2011 1700
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.80		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	62		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	38		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: W-16

Lab Sample ID: 580-28720-23 Date Sampled: 09/12/2011 1540
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.95		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	66		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	34		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: W-7

Lab Sample ID: 580-28720-24 Date Sampled: 09/12/2011 1620
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.36		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	68		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	32		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: W-21

Lab Sample ID: 580-28720-25 Date Sampled: 09/12/2011 1300
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.82		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	72		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	28		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: **W-23**

Lab Sample ID: 580-28720-26 Date Sampled: 09/12/2011 1445
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.18		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	59		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	41		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: **W-18**

Lab Sample ID: 580-28720-27 Date Sampled: 09/12/2011 1116
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.85		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	57		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	43		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: **W-1**

Lab Sample ID: 580-28720-28 Date Sampled: 09/12/2011 1510
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.96		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	58		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	42		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: W-17

Lab Sample ID: 580-28720-29 Date Sampled: 09/12/2011 1205
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.17		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	60		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	40		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: G-9

Lab Sample ID: 580-28720-30 Date Sampled: 09/14/2011 1425
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.32		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: G-12

Lab Sample ID: 580-28720-31 Date Sampled: 09/14/2011 1605
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.05		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	74		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	26		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: G-8

Lab Sample ID: 580-28720-32 Date Sampled: 09/14/2011 1410
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.01		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	83		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	17		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: **76 S-2 6-12**

Lab Sample ID: 580-28720-33 Date Sampled: 09/13/2011 1740
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.68		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	93		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	7.3		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: G-7

Lab Sample ID: 580-28720-34 Date Sampled: 09/14/2011 1330
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.57		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	90		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	9.9		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: G-11

Lab Sample ID: 580-28720-35 Date Sampled: 09/14/2011 1315
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.03		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	77		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	23		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: G-6

Lab Sample ID: 580-28720-36 Date Sampled: 09/14/2011 1430
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.48		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	68		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	32		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: 74 S-2 0-6

Lab Sample ID: 580-28720-37 Date Sampled: 09/15/2011 1320
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.70		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	86		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	14		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: **74 S-1 0-6**

Lab Sample ID: 580-28720-38 Date Sampled: 09/15/2011 1310
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.44		SU	1.0	9045C
Analysis Batch: 580-96905	Analysis Date: 10/05/2011 0659			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	73		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	27		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: **G-10**

Lab Sample ID: 580-28720-39 Date Sampled: 09/14/2011 1525
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.67		SU	1.0	9045C
Analysis Batch: 580-96906	Analysis Date: 10/03/2011 0710			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	77		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	23		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: **Emma 2 S-2 6-12**

Lab Sample ID: 580-28720-40 Date Sampled: 09/15/2011 1330
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.67		SU	1.0	9045C
Analysis Batch: 580-96906	Analysis Date: 10/03/2011 0710			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	89		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	
Percent Moisture	11		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95971	Analysis Date: 09/23/2011 0911					DryWt Corrected: N	

General Chemistry

Client Sample ID: **Emma 2 S-1 0-6**

Lab Sample ID: 580-28720-41 Date Sampled: 09/15/2011 1300
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	5.62		SU	1.0	9045C
Analysis Batch: 580-96906	Analysis Date: 10/03/2011 0710				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	79		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95983	Analysis Date: 09/23/2011 1020						DryWt Corrected: N
Percent Moisture	21		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95983	Analysis Date: 09/23/2011 1020						DryWt Corrected: N

General Chemistry

Client Sample ID: **Emma 2 S-2 0-6**

Lab Sample ID: 580-28720-42 Date Sampled: 09/15/2011 1320
Client Matrix: Solid Date Received: 09/20/2011 1100

Analyte	Result	Qual	Units	Dil	Method
pH	4.50		SU	1.0	9045C
Analysis Batch: 580-96906	Analysis Date: 10/03/2011 0710			DryWt Corrected: N	

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	92		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95983	Analysis Date: 09/23/2011 1020					DryWt Corrected: N	
Percent Moisture	8.5		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-95983	Analysis Date: 09/23/2011 1020					DryWt Corrected: N	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-95937

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 580-95937/21-A	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/24/2011 1029	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Iron	1.35	J	0.61	10
Potassium	ND		16	170
Calcium	6.65	J	3.1	55
Magnesium	ND		3.2	55

LCS-Certified Reference Material - Batch: 580-95937

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5041 g
Analysis Date:	09/24/2011 1049	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	13100	9720	74	41.6 - 159.1	
Potassium	2770	2010	72	65.0 - 135.0	
Calcium	6700	6700	100	75.4 - 124.0	
Magnesium	2980	2320	78	70.0 - 130.0	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95937

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95937/22-A	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/24/2011 1036	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95937/23-A	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/24/2011 1042	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Iron	99	115	80 - 120	14	20		
Potassium	96	98	80 - 120	3	20		
Calcium	100	103	80 - 120	4	20		
Magnesium	98	105	80 - 120	8	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95937

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95937/22-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-95937/23-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	09/24/2011 1036			Analysis Date:	09/24/2011 1042
Prep Date:	09/22/2011 1659			Prep Date:	09/22/2011 1659
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Iron	1100	1100	1090	1260
Potassium	1000	1000	957	984
Calcium	1000	1000	996	1030
Magnesium	1000	1000	977	1050

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Post Digestion Spike - Batch: 580-95937

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-1	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1195 g
Analysis Date:	09/24/2011 1129	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Iron	58000	1060	56200	NC	75 - 125	
Potassium	400	959	1410	105		
Calcium	1000	959	1890	92		
Magnesium	440	959	1310	90	75 - 125	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95937

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28720-1	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0815 g
Analysis Date:	09/24/2011 1116			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28720-1	Analysis Batch:	580-96078	Instrument ID:	TAC047		
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc		
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0507 g		
Analysis Date:	09/24/2011 1123			Final Weight/Volume:	50 mL		
Prep Date:	09/22/2011 1659						
Leach Date:	N/A						

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	-405	51	80 - 120	9	20	4	4
Potassium	85	92	80 - 120	7	20		
Calcium	95	98	80 - 120	3	20		
Magnesium	83	85	80 - 120	4	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95937

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28720-1	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/24/2011 1116		
Prep Date:	09/22/2011 1659		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28720-1
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	09/24/2011 1123
Prep Date:	09/22/2011 1659
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Iron	58000	1090	1120	53400 4	58400 4
Potassium	400	993	1020	1250	1340
Calcium	1000	993	1020	1950	2010
Magnesium	440	993	1020	1270	1310

Serial Dilution - Batch: 580-95937

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-1	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1195 g
Analysis Date:	09/24/2011 1056	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Iron	70000		67600	3.3	10	
Potassium	ND		362	NC		J
Calcium	1300	J	1110	12		
Magnesium	520	J	492	4.9	10	

Duplicate - Batch: 580-95937

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-1	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0429 g
Analysis Date:	09/24/2011 1109	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Iron	58000	57000	1	20	
Potassium	400	349	13	20	
Calcium	1000	1010	0.7	20	
Magnesium	440	473	7	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-96028

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 580-96028/21-A	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/24/2011 1652	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Iron	ND		0.61	10
Potassium	ND		16	170
Calcium	ND		3.1	55
Magnesium	ND		3.2	55

LCS-Certified Reference Material - Batch: 580-96028

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5046 g
Analysis Date:	09/24/2011 1712	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	13100	11300	86	41.6 - 159.1	
Potassium	2770	2650	96	65.0 - 135.0	
Calcium	6700	6960	104	75.4 - 124.0	
Magnesium	2980	2720	91	70.0 - 130.0	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-96028

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-96028/22-A	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/24/2011 1659	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-96028/23-A	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/24/2011 1705	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Iron	94	92	80 - 120	2	20		
Potassium	100	102	80 - 120	2	20		
Calcium	101	100	80 - 120	0	20		
Magnesium	94	94	80 - 120	1	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-96028

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-96028/22-A	Units:	mg/Kg
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/24/2011 1659		
Prep Date:	09/23/2011 1450		
Leach Date:	N/A		

LCSD Lab Sample ID:	LCSD 580-96028/23-A
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	09/24/2011 1705
Prep Date:	09/23/2011 1450
Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Iron	1100	1100	1030	1010
Potassium	1000	1000	999	1020
Calcium	1000	1000	1010	1000
Magnesium	1000	1000	941	936

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Post Digestion Spike - Batch: 580-96028

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-18	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0277 g
Analysis Date:	09/24/2011 1753	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Iron	25000	1180	25100	NC	75 - 125	
Potassium	700	1070	1650	89		
Calcium	1900	1070	2770	77		
Magnesium	6500	1070	7060	53	75 - 125	W

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96028

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28720-18	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0350 g
Analysis Date:	09/24/2011 1739			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28720-18	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0500 g
Analysis Date:	09/24/2011 1746			Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	155	163	80 - 120	0	20	4	4
Potassium	80	77	80 - 120	3	20		F
Calcium	113	108	80 - 120	2	20		
Magnesium	82	99	80 - 120	2	20	4	4

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96028

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28720-18	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/24/2011 1739		
Prep Date:	09/23/2011 1450		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28720-18
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	09/24/2011 1746
Prep Date:	09/23/2011 1450
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Iron	25000	1170	1150	26600	4	26700	4
Potassium	700	1060	1050	1550		1510	F
Calcium	1900	1060	1050	3140		3080	
Magnesium	6500	1060	1050	7360	4	7540	4

Serial Dilution - Batch: 580-96028

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-18	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0277 g
Analysis Date:	09/24/2011 1719	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Iron	28000		26500	7.0	10	
Potassium	ND		618	NC		J
Calcium	2400	J	2080	14		
Magnesium	7300		6820	6.7	10	

Duplicate - Batch: 580-96028

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-18	Analysis Batch:	580-96078	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	580-95937-96028.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0375 g
Analysis Date:	09/24/2011 1732	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Iron	25000	25300	2	20	
Potassium	700	704	1	20	
Calcium	1900	1990	2	20	
Magnesium	6500	6690	3	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-96039

Method: 6010B
Preparation: 3050B

Lab Sample ID:	MB 580-96039/12-A	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/26/2011 1636	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Iron	1.32	J	0.61	10
Potassium	ND		16	170
Calcium	ND		3.1	55
Magnesium	ND		3.2	55

LCS-Certified Reference Material - Batch: 580-96039

Method: 6010B
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5034 g
Analysis Date:	09/26/2011 1656	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Iron	13100	13100	100	41.6 - 159.1	
Potassium	2770	2510	91	65.0 - 135.0	
Calcium	6700	6690	100	75.4 - 124.0	
Magnesium	2980	2860	96	70.0 - 130.0	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-96039

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-96039/13-A	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/26/2011 1643	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-96039/14-A	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/26/2011 1650	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	% Rec. LCS	% Rec. LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Iron	100	100	80 - 120	0	20		
Potassium	101	101	80 - 120	0	20		
Calcium	101	101	80 - 120	0	20		
Magnesium	99	100	80 - 120	2	20		

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-96039

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-96039/13-A	Units:	mg/Kg
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/26/2011 1643		
Prep Date:	09/24/2011 1430		
Leach Date:	N/A		

LCSD Lab Sample ID:	LCSD 580-96039/14-A
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	09/26/2011 1650
Prep Date:	09/24/2011 1430
Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Iron	1100	1100	1100	1100
Potassium	1000	1000	1010	1010
Calcium	1000	1000	1010	1010
Magnesium	1000	1000	989	1000

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Post Digestion Spike - Batch: 580-96039

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-35	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0046 g
Analysis Date:	09/26/2011 1737	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Iron	34000	1430	33500	NC	75 - 125	
Potassium	1300	1300	2420	89		
Calcium	1800	1300	2900	83		
Magnesium	5300	1300	6130	61	75 - 125	W

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96039

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28720-35	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0382 g
Analysis Date:	09/26/2011 1724			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28720-35	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0580 g
Analysis Date:	09/26/2011 1731			Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Iron	273	164	80 - 120	4	20	4	4
Potassium	117	99	80 - 120	10	20		
Calcium	170	156	80 - 120	5	20	F	F
Magnesium	127	81	80 - 120	9	20	4	4

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96039

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-28720-35	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/26/2011 1724		
Prep Date:	09/24/2011 1430		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28720-35
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	09/26/2011 1731
Prep Date:	09/24/2011 1430
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Iron	34000	1380	1360	38100	4	36500	4
Potassium	1300	1260	1230	2740		2480	
Calcium	1800	1260	1230	3950	F	3740	F
Magnesium	5300	1260	1230	6930	4	6340	4

Serial Dilution - Batch: 580-96039

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-35	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0046 g
Analysis Date:	09/26/2011 1703	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Iron	35000		35700	2.3	10	
Potassium	ND		1240	37		
Calcium	1800	J	1850	1.4		
Magnesium	5700	J	5540	2.5	10	

Duplicate - Batch: 580-96039

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-28720-35	Analysis Batch:	580-96226	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	580-96039.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0533 g
Analysis Date:	09/26/2011 1717	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Iron	34000	34400	0.4	20	
Potassium	1300	1210	4	20	
Calcium	1800	1970	8	20	
Magnesium	5300	4940	8	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-95937

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 580-95937/21-A	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/23/2011 1131	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		3.0	30
Antimony	ND		0.042	0.20
Arsenic	ND		0.18	0.50
Beryllium	ND		0.022	0.20
Cadmium	ND		0.0080	0.20
Chromium	ND		0.11	0.20
Copper	ND		0.098	0.20
Lead	ND		0.013	0.20
Manganese	ND		0.17	0.50
Nickel	0.225		0.20	0.20
Selenium	ND		0.20	0.70
Silver	ND		0.012	0.20
Thallium	ND		0.13	0.50
Zinc	ND		1.1	0.70
Sodium	ND		39	100
Barium	ND		0.030	0.20
Vanadium	ND		0.47	0.70
Cobalt	0.0200	J	0.019	0.20

Client: Hart Crowser, Inc. Job Number: 580-28720-1

LCS-Certified Reference Material - Batch: 580-95937

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.5041 g
Analysis Date:	09/23/2011 1143	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9780	8350	85	46.0 - 153.8	
Antimony	121	215	178	21.0 - 251.6	
Arsenic	109	110	101	71.1 - 128.9	
Beryllium	92.1	89.6	97	75.3 - 124.7	
Cadmium	110	114	103	73.2 - 126.8	
Chromium	93.4	95.5	102	69.9 - 129.8	
Copper	84.7	72.8	86	73.2 - 126.8	
Lead	152	170	112	75.3 - 125.1	
Manganese	443	462	104	75.8 - 124.5	
Nickel	109	112	103	73.8 - 126.7	
Selenium	207	208	101	67.1 - 132.7	
Silver	51.9	52.5	101	65.6 - 134.4	
Thallium	171	182	106	68.8 - 131.2	
Zinc	299	300	100	72.2 - 127.8	
Sodium	724	690	95	52.0 - 148.0	
Barium	325	320	99	74.7 - 125.5	
Vanadium	110	117	107	64.5 - 135.3	
Cobalt	133	143	108	74.5 - 126.1	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95937

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95937/22-A	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/23/2011 1135	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-95937/23-A	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/23/2011 1139	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	102	108	80 - 120	6	20		
Antimony	102	101	80 - 120	0	20		
Arsenic	104	104	80 - 120	1	20		
Beryllium	102	108	80 - 120	6	20		
Cadmium	112	110	80 - 120	2	20		
Chromium	110	108	80 - 120	2	20		
Copper	108	110	80 - 120	2	20		
Lead	111	112	80 - 120	0	20		
Manganese	110	111	80 - 120	1	20		
Nickel	103	103	80 - 120	0	20		
Selenium	103	103	80 - 120	0	20		
Silver	108	106	80 - 120	1	20		
Thallium	108	107	80 - 120	1	20		
Zinc	108	104	80 - 120	3	20		
Sodium	105	110	80 - 120	4	20		
Barium	106	104	80 - 120	2	20		
Vanadium	114	110	80 - 120	4	20		
Cobalt	111	112	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95937

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-95937/22-A	Units: mg/Kg	LCSD Lab Sample ID:	LCSD 580-95937/23-A
Client Matrix:	Solid		Client Matrix:	Solid
Dilution:	50		Dilution:	50
Analysis Date:	09/23/2011 1135		Analysis Date:	09/23/2011 1139
Prep Date:	09/22/2011 1659		Prep Date:	09/22/2011 1659
Leach Date:	N/A		Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Aluminum	200	200	203	215
Antimony	150	150	152	152
Arsenic	200	200	209	207
Beryllium	5.00	5.00	5.12	5.42
Cadmium	5.00	5.00	5.62	5.49
Chromium	20.0	20.0	21.9	21.5
Copper	25.0	25.0	27.0	27.5
Lead	50.0	50.0	55.6	55.9
Manganese	50.0	50.0	55.0	55.3
Nickel	50.0	50.0	51.5	51.3
Selenium	200	200	206	207
Silver	30.0	30.0	32.3	31.9
Thallium	200	200	216	214
Zinc	50.0	50.0	53.9	52.1
Sodium	1000	1000	1050	1100
Barium	200	200	211	208
Vanadium	50.0	50.0	56.8	54.9
Cobalt	50.0	50.0	55.4	56.1

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Post Digestion Spike - Batch: 580-95937

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-1	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1195 g
Analysis Date:	09/23/2011 1217	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	1300	J	192	2840	799	75 - 125	W
Antimony	300		144	446	101	75 - 125	
Arsenic	8600		192	8890	NC	75 - 125	
Beryllium	ND		4.80	5.48	114	75 - 125	
Cadmium	9.9	J	4.80	15.7	120	75 - 125	
Chromium	ND		19.2	22.2	116	75 - 125	
Copper	180		24.0	197	83	75 - 125	
Lead	1000		48.0	1080	NC	75 - 125	
Manganese	4800		48.0	4720	NC	75 - 125	
Nickel	ND		48.0	54.9	114	75 - 125	
Selenium	ND		192	207	108	75 - 125	
Silver	11	J	28.8	43.6	113	75 - 125	
Thallium	ND		192	219	114	75 - 125	
Zinc	1800		48.0	1790	NC	75 - 125	
Sodium	ND		959	1100	114	75 - 125	
Barium	13	J	192	230	113	75 - 125	
Vanadium	ND		48.0	68.9	144	75 - 125	W
Cobalt	15	J	48.0	70.8	116	75 - 125	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95937

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28720-1	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0815 g
Analysis Date:	09/23/2011 1209			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28720-1	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0507 g
Analysis Date:	09/23/2011 1213			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aluminum	142	233	80 - 120	12	20	4	4
Antimony	62	90	80 - 120	11	20	F	
Arsenic	-199	744	80 - 120	21	20	4	4 F
Beryllium	109	115	80 - 120	8	20		
Cadmium	110	124	80 - 120	5	20		F
Chromium	108	111	80 - 120	6	20		
Copper	17	824	80 - 120	72	20	4	4 F
Lead	28	995	80 - 120	39	20	4	4 F
Manganese	-1048	89	80 - 120	12	20	4	4
Nickel	106	113	80 - 120	9	20		
Selenium	101	105	80 - 120	7	20		
Silver	97	126	80 - 120	21	20		F
Thallium	106	111	80 - 120	8	20		
Zinc	-286	144	80 - 120	12	20	4	4
Sodium	104	105	80 - 120	4	20		
Barium	103	110	80 - 120	9	20		
Vanadium	130	135	80 - 120	7	20	F	F
Cobalt	104	112	80 - 120	8	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95937

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28720-1	Units: mg/Kg	MSD Lab Sample ID: 580-28720-1
Client Matrix:	Solid		Client Matrix: Solid
Dilution:	50		Dilution: 50
Analysis Date:	09/23/2011 1209		Analysis Date: 09/23/2011 1213
Prep Date:	09/22/2011 1659		Prep Date: 09/22/2011 1659
Leach Date:	N/A		Leach Date: N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Aluminum	1300	J	199	204	1590	4	1790	4
Antimony	300		149	153	392	F	438	
Arsenic	8600		199	204	8230	4	10100	4 F
Beryllium	ND		4.97	5.11	5.42		5.90	
Cadmium	9.9	J	4.97	5.11	15.4		16.2	F
Chromium	ND		19.9	20.4	21.4		22.8	
Copper	180		24.8	25.6	182	4	388	4 F
Lead	1000		49.7	51.1	1020	4	1510	4 F
Manganese	4800		49.7	51.1	4250	4	4820	4
Nickel	ND		49.7	51.1	52.7		57.7	
Selenium	ND		199	204	201		215	
Silver	11	J	29.8	30.7	40.0		49.6	F
Thallium	ND		199	204	210		227	
Zinc	1800		49.7	51.1	1690	4	1910	4
Sodium	ND		993	1020	1030		1080	
Barium	13	J	199	204	217		237	
Vanadium	ND		49.7	51.1	64.5	F	69.2	F
Cobalt	15	J	49.7	51.1	66.8		72.5	

Serial Dilution - Batch: 580-95937

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-1	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1195 g
Analysis Date:	09/23/2011 1156	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	1300	J	1210	8.0	10	
Antimony	300		288	3.8	10	
Arsenic	8600		8640	0.24	10	
Beryllium	ND		0.237	NC	10	J
Cadmium	9.9	J	10.1	1.7	10	
Chromium	ND		0.820	NC	10	J
Copper	180		168	5.1	10	
Lead	1000		1010	0.29	10	
Manganese	4800		4670	2.2	10	
Nickel	ND		1.20	NC	10	
Selenium	ND		ND	NC	10	
Silver	11	J	11.3	2.3	10	
Thallium	ND		0.662	NC	10	J
Zinc	1800		1740	4.8	10	
Sodium	ND		ND	NC	10	
Barium	13	J	11.9	5.6	10	
Vanadium	ND		12.0	NC	10	
Cobalt	15	J	15.3	0.24	10	

Duplicate - Batch: 580-95937

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-1	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0429 g
Analysis Date:	09/23/2011 1205	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	1300	J	1330	2	20	
Antimony	300		326	8	20	
Arsenic	8600		9420	9	20	
Beryllium	ND		0.181	NC	20	J
Cadmium	9.9	J	10.9	9	20	
Chromium	ND		0.746	NC	20	
Copper	180		176	0.9	20	
Lead	1000		1110	10	20	
Manganese	4800		4960	4	20	
Nickel	ND		3.45	NC	20	
Selenium	ND		0.317	NC	20	J

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-95937

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-1	Analysis Batch:	580-96018	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-95937	Lab File ID:	95937-ICPMS.rep
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0429 g
Analysis Date:	09/23/2011 1205	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1659				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	11	J	12.3	11	20	
Thallium	ND		0.498	NC	20	J
Zinc	1800		1940	6	20	
Sodium	ND		ND	NC	20	
Barium	13	J	13.3	5	20	
Vanadium	ND		12.2	NC	20	
Cobalt	15	J	15.7	3	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-96028

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 580-96028/21-A	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	048SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/27/2011 1123	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		3.0	30
Antimony	ND		0.042	0.20
Arsenic	ND		0.18	0.50
Beryllium	ND		0.022	0.20
Cadmium	ND		0.0080	0.20
Chromium	ND		0.11	0.20
Copper	ND		0.098	0.20
Lead	ND		0.013	0.20
Manganese	ND		0.17	0.50
Nickel	ND		0.20	0.20
Selenium	ND		0.20	0.70
Silver	ND		0.012	0.20
Thallium	ND		0.13	0.50
Zinc	ND		1.1	0.70
Sodium	ND		39	100
Barium	ND		0.030	0.20
Vanadium	ND		0.47	0.70
Cobalt	ND		0.019	0.20

Client: Hart Crowser, Inc. Job Number: 580-28720-1

LCS-Certified Reference Material - Batch: 580-96028

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	051SMPL.D#.raw
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.5046 g
Analysis Date:	09/27/2011 1138	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9780	7700	79	46.0 - 153.8	
Antimony	121	230	190	21.0 - 251.6	
Arsenic	109	115	106	71.1 - 128.9	
Beryllium	92.1	95.2	103	75.3 - 124.7	
Cadmium	110	118	107	73.2 - 126.8	
Chromium	93.4	93.8	100	69.9 - 129.8	
Copper	84.7	74.8	88	73.2 - 126.8	
Lead	152	171	113	75.3 - 125.1	
Manganese	443	491	111	75.8 - 124.5	
Nickel	109	115	105	73.8 - 126.7	
Selenium	207	221	107	67.1 - 132.7	
Silver	51.9	52.7	102	65.6 - 134.4	
Thallium	171	192	112	68.8 - 131.2	
Zinc	299	314	105	72.2 - 127.8	
Sodium	724	713	99	52.0 - 148.0	
Barium	325	347	107	74.7 - 125.5	
Vanadium	110	113	103	64.5 - 135.3	
Cobalt	133	148	112	74.5 - 126.1	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-96028

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-96028/22-A	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	049SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/27/2011 1128	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-96028/23-A	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	050SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/27/2011 1134	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	94	94	80 - 120	0	20		
Antimony	98	98	80 - 120	0	20		
Arsenic	102	103	80 - 120	0	20		
Beryllium	105	102	80 - 120	3	20		
Cadmium	101	100	80 - 120	1	20		
Chromium	99	99	80 - 120	0	20		
Copper	103	103	80 - 120	0	20		
Lead	100	99	80 - 120	1	20		
Manganese	104	104	80 - 120	0	20		
Nickel	100	101	80 - 120	0	20		
Selenium	100	100	80 - 120	0	20		
Silver	101	101	80 - 120	0	20		
Thallium	103	105	80 - 120	2	20		
Zinc	102	102	80 - 120	0	20		
Sodium	97	97	80 - 120	0	20		
Barium	102	101	80 - 120	0	20		
Vanadium	99	99	80 - 120	0	20		
Cobalt	101	103	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-96028

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-96028/22-A	Units: mg/Kg	LCSD Lab Sample ID:	LCSD 580-96028/23-A
Client Matrix:	Solid		Client Matrix:	Solid
Dilution:	50		Dilution:	50
Analysis Date:	09/27/2011 1128		Analysis Date:	09/27/2011 1134
Prep Date:	09/23/2011 1450		Prep Date:	09/23/2011 1450
Leach Date:	N/A		Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Aluminum	200	200	188	189
Antimony	150	150	146	147
Arsenic	200	200	204	205
Beryllium	5.00	5.00	5.24	5.11
Cadmium	5.00	5.00	5.04	4.98
Chromium	20.0	20.0	19.8	19.8
Copper	25.0	25.0	25.8	25.9
Lead	50.0	50.0	49.9	49.5
Manganese	50.0	50.0	52.1	52.2
Nickel	50.0	50.0	50.1	50.3
Selenium	200	200	200	200
Silver	30.0	30.0	30.2	30.2
Thallium	200	200	206	211
Zinc	50.0	50.0	51.2	51.0
Sodium	1000	1000	973	975
Barium	200	200	203	203
Vanadium	50.0	50.0	49.5	49.4
Cobalt	50.0	50.0	50.7	51.4

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Post Digestion Spike - Batch: 580-96028

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-18	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	059SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0277 g
Analysis Date:	09/27/2011 1213	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	14000		215	13900	NC	75 - 125	
Antimony	20		161	204	114	75 - 125	
Arsenic	430		215	634	97	75 - 125	
Beryllium	0.31		5.36	6.81	121	75 - 125	
Cadmium	1.0		5.36	7.04	112	75 - 125	
Chromium	26		21.5	48.7	106	75 - 125	
Copper	27		26.8	57.3	111	75 - 125	
Lead	170		53.6	227	109	75 - 125	
Manganese	1400		53.6	1450	NC	75 - 125	
Nickel	20		53.6	80.8	113	75 - 125	
Selenium	0.56	J	215	244	114	75 - 125	
Silver	1.4		32.2	38.0	114	75 - 125	
Thallium	0.31	J	215	260	121	75 - 125	
Zinc	210		53.6	256	95	75 - 125	
Sodium	250		1070	1460	113	75 - 125	
Barium	43		215	296	118	75 - 125	
Vanadium	48		53.6	105	106	75 - 125	
Cobalt	13		53.6	73.4	112	75 - 125	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96028

Method: 6020
Preparation: 3050B

MS Lab Sample ID: 580-28720-18
Client Matrix: Solid
Dilution: 50
Analysis Date: 09/27/2011 1204
Prep Date: 09/23/2011 1450
Leach Date: N/A

Analysis Batch: 580-96277
Prep Batch: 580-96028
Leach Batch: N/A

Instrument ID: SEA044
Lab File ID: 057SMPL.D#.raw
Initial Weight/Volume: 1.0350 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-28720-18
Client Matrix: Solid
Dilution: 50
Analysis Date: 09/27/2011 1208
Prep Date: 09/23/2011 1450
Leach Date: N/A

Analysis Batch: 580-96277
Prep Batch: 580-96028
Leach Batch: N/A

Instrument ID: SEA044
Lab File ID: 058SMPL.D#.raw
Initial Weight/Volume: 1.0500 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aluminum	442	591	80 - 120	2	20	4	4
Antimony	45	50	80 - 120	8	20	F	F
Arsenic	102	112	80 - 120	3	20		
Beryllium	113	117	80 - 120	2	20		
Cadmium	108	104	80 - 120	4	20		
Chromium	101	113	80 - 120	5	20		
Copper	125	117	80 - 120	4	20	F	
Lead	125	116	80 - 120	3	20	F	
Manganese	200	29	80 - 120	6	20	4	4
Nickel	108	112	80 - 120	2	20		
Selenium	108	110	80 - 120	1	20		
Silver	107	108	80 - 120	0	20		
Thallium	117	118	80 - 120	1	20		
Zinc	198	115	80 - 120	16	20	F	
Sodium	115	115	80 - 120	2	20		
Barium	113	114	80 - 120	1	20		
Vanadium	107	109	80 - 120	0	20		
Cobalt	109	110	80 - 120	0	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96028

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28720-18	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	09/27/2011 1204		
Prep Date:	09/23/2011 1450		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28720-18
Client Matrix:	Solid
Dilution:	50
Analysis Date:	09/27/2011 1208
Prep Date:	09/23/2011 1450
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Aluminum	14000		213	210	14700	4	15000	4
Antimony	20		160	157	91.7	F	99.0	F
Arsenic	430		213	210	643		661	
Beryllium	0.31		5.32	5.25	6.34		6.47	
Cadmium	1.0		5.32	5.25	6.77		6.48	
Chromium	26		21.3	21.0	47.3		49.6	
Copper	27		26.6	26.2	60.8	F	58.1	
Lead	170		53.2	52.5	236	F	230	
Manganese	1400		53.2	52.5	1520	4	1430	4
Nickel	20		53.2	52.5	77.6		78.9	
Selenium	0.56	J	213	210	231		233	
Silver	1.4		31.9	31.5	35.6		35.4	
Thallium	0.31	J	213	210	250		248	
Zinc	210		53.2	52.5	311	F	266	
Sodium	250		1060	1050	1480		1450	
Barium	43		213	210	285		283	
Vanadium	48		53.2	52.5	105		106	
Cobalt	13		53.2	52.5	71.6		71.3	

Serial Dilution - Batch: 580-96028

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-18	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	054SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0277 g
Analysis Date:	09/27/2011 1151	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	14000		14700	7.0	10	
Antimony	20		19.9	0.57	10	
Arsenic	430		414	3.0	10	
Beryllium	0.31		0.310	NC	10	J
Cadmium	1.0		0.897	12	10	J V
Chromium	26		26.6	2.9	10	
Copper	27		28.2	3.0	10	
Lead	170		176	4.1	10	
Manganese	1400		1510	6.7	10	
Nickel	20		20.6	1.4	10	
Selenium	0.56	J	ND	NC	10	
Silver	1.4		1.49	5.3	10	
Thallium	0.31	J	0.745	NC	10	J
Zinc	210		211	2.6	10	
Sodium	250		247	NC	10	J
Barium	43		43.5	0.37	10	
Vanadium	48		49.3	2.0	10	
Cobalt	13		13.9	3.4	10	

Duplicate - Batch: 580-96028

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-18	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	056SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0375 g
Analysis Date:	09/27/2011 1200	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	14000		13700	0.3	20	
Antimony	20		19.8	0.3	20	
Arsenic	430		428	0.3	20	
Beryllium	0.31		0.331	6	20	
Cadmium	1.0		0.964	6	20	
Chromium	26		26.0	0.6	20	
Copper	27		27.5	0.3	20	
Lead	170		170	0.5	20	
Manganese	1400		1430	2	20	
Nickel	20		20.2	0.6	20	
Selenium	0.56	J	0.589	5	20	J

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-96028

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-18	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96028	Lab File ID:	056SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0375 g
Analysis Date:	09/27/2011 1200	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/23/2011 1450				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	1.4		1.44	2	20	
Thallium	0.31	J	0.304	3	20	J
Zinc	210		205	0.2	20	
Sodium	250		235	5	20	
Barium	43		43.6	0.6	20	
Vanadium	48		48.3	0.1	20	
Cobalt	13		13.5	0.4	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-96039

Method: 6020
Preparation: 3050B

Lab Sample ID:	MB 580-96039/12-A	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	025SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/27/2011 0942	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		3.0	30
Antimony	ND		0.042	0.20
Arsenic	ND		0.18	0.50
Beryllium	ND		0.022	0.20
Cadmium	ND		0.0080	0.20
Chromium	ND		0.11	0.20
Copper	ND		0.098	0.20
Lead	ND		0.013	0.20
Manganese	ND		0.17	0.50
Nickel	ND		0.20	0.20
Selenium	ND		0.20	0.70
Silver	ND		0.012	0.20
Thallium	ND		0.13	0.50
Zinc	ND		1.1	0.70
Sodium	ND		39	100
Barium	ND		0.030	0.20
Vanadium	ND		0.47	0.70
Cobalt	ND		0.019	0.20

Client: Hart Crowser, Inc. Job Number: 580-28720-1

LCS-Certified Reference Material - Batch: 580-96039

Method: 6020
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	028SMPL.D#.raw
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.5034 g
Analysis Date:	09/27/2011 0955	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9780	7980	82	46.0 - 153.8	
Antimony	121	229	190	21.0 - 251.6	
Arsenic	109	117	107	71.1 - 128.9	
Beryllium	92.1	95.7	104	75.3 - 124.7	
Cadmium	110	118	107	73.2 - 126.8	
Chromium	93.4	96.9	104	69.9 - 129.8	
Copper	84.7	77.4	91	73.2 - 126.8	
Lead	152	172	113	75.3 - 125.1	
Manganese	443	505	114	75.8 - 124.5	
Nickel	109	118	109	73.8 - 126.7	
Selenium	207	225	109	67.1 - 132.7	
Silver	51.9	53.1	102	65.6 - 134.4	
Thallium	171	192	112	68.8 - 131.2	
Zinc	299	320	107	72.2 - 127.8	
Sodium	724	757	104	52.0 - 148.0	
Barium	325	344	106	74.7 - 125.5	
Vanadium	110	116	106	64.5 - 135.3	
Cobalt	133	154	116	74.5 - 126.1	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-96039

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-96039/13-A	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	026SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/27/2011 0946	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-96039/14-A	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	027SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	09/27/2011 0951	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	99	96	80 - 120	3	20		
Antimony	98	98	80 - 120	0	20		
Arsenic	103	103	80 - 120	0	20		
Beryllium	105	107	80 - 120	2	20		
Cadmium	100	107	80 - 120	7	20		
Chromium	100	99	80 - 120	0	20		
Copper	104	106	80 - 120	2	20		
Lead	101	100	80 - 120	1	20		
Manganese	104	103	80 - 120	1	20		
Nickel	103	104	80 - 120	1	20		
Selenium	99	101	80 - 120	1	20		
Silver	102	102	80 - 120	0	20		
Thallium	104	104	80 - 120	0	20		
Zinc	103	101	80 - 120	2	20		
Sodium	100	99	80 - 120	1	20		
Barium	101	101	80 - 120	0	20		
Vanadium	99	99	80 - 120	0	20		
Cobalt	102	102	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-96039

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-96039/13-A	Units: mg/Kg	LCSD Lab Sample ID:	LCSD 580-96039/14-A
Client Matrix:	Solid		Client Matrix:	Solid
Dilution:	50		Dilution:	50
Analysis Date:	09/27/2011 0946		Analysis Date:	09/27/2011 0951
Prep Date:	09/24/2011 1430		Prep Date:	09/24/2011 1430
Leach Date:	N/A		Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Aluminum	200	200	198	192
Antimony	150	150	147	147
Arsenic	200	200	205	206
Beryllium	5.00	5.00	5.24	5.37
Cadmium	5.00	5.00	5.00	5.37
Chromium	20.0	20.0	19.9	19.9
Copper	25.0	25.0	26.1	26.6
Lead	50.0	50.0	50.6	50.2
Manganese	50.0	50.0	51.8	51.4
Nickel	50.0	50.0	51.5	51.8
Selenium	200	200	199	201
Silver	30.0	30.0	30.6	30.5
Thallium	200	200	208	208
Zinc	50.0	50.0	51.6	50.7
Sodium	1000	1000	1000	994
Barium	200	200	203	202
Vanadium	50.0	50.0	49.7	49.5
Cobalt	50.0	50.0	51.2	50.9

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Post Digestion Spike - Batch: 580-96039

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-35	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	036SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0046 g
Analysis Date:	09/27/2011 1030	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	17000	260	17400	NC	75 - 125	
Antimony	8.2	195	225	111	75 - 125	
Arsenic	230	260	521	112	75 - 125	
Beryllium	0.16 J	6.49	7.63	115	75 - 125	
Cadmium	0.78	6.49	8.20	114	75 - 125	
Chromium	11	26.0	39.4	110	75 - 125	
Copper	140	32.5	169	95	75 - 125	
Lead	88	64.9	163	116	75 - 125	
Manganese	1300	64.9	1420	NC	75 - 125	
Nickel	8.2	64.9	82.6	115	75 - 125	
Selenium	1.2	260	294	113	75 - 125	
Silver	1.9	39.0	45.0	111	75 - 125	
Thallium	0.31 J	260	302	116	75 - 125	
Zinc	160	64.9	230	104	75 - 125	
Sodium	390	1300	1890	115	75 - 125	
Barium	52	260	348	114	75 - 125	
Vanadium	79	64.9	147	105	75 - 125	
Cobalt	19	64.9	91.1	112	75 - 125	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96039

Method: 6020
Preparation: 3050B

MS Lab Sample ID: 580-28720-35
Client Matrix: Solid
Dilution: 50
Analysis Date: 09/27/2011 1021
Prep Date: 09/24/2011 1430
Leach Date: N/A

Analysis Batch: 580-96277
Prep Batch: 580-96039
Leach Batch: N/A

Instrument ID: SEA044
Lab File ID: 034SMPL.D#.raw
Initial Weight/Volume: 1.0382 g
Final Weight/Volume: 50 mL

MSD Lab Sample ID: 580-28720-35
Client Matrix: Solid
Dilution: 50
Analysis Date: 09/27/2011 1025
Prep Date: 09/24/2011 1430
Leach Date: N/A

Analysis Batch: 580-96277
Prep Batch: 580-96039
Leach Batch: N/A

Instrument ID: SEA044
Lab File ID: 035SMPL.D#.raw
Initial Weight/Volume: 1.0580 g
Final Weight/Volume: 50 mL

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aluminum	1651	1602	80 - 120	1	20	4	4
Antimony	60	60	80 - 120	2	20	F	F
Arsenic	112	124	80 - 120	5	20		F
Beryllium	119	119	80 - 120	2	20		
Cadmium	114	120	80 - 120	3	20		
Chromium	119	116	80 - 120	3	20		
Copper	151	162	80 - 120	1	20	4	4
Lead	118	118	80 - 120	1	20		
Manganese	-35	-226	80 - 120	9	20	4	4
Nickel	116	121	80 - 120	2	20		F
Selenium	112	115	80 - 120	1	20		
Silver	111	115	80 - 120	1	20		
Thallium	119	120	80 - 120	1	20		
Zinc	49	52	80 - 120	1	20	F	F
Sodium	148	141	80 - 120	5	20	F	F
Barium	120	120	80 - 120	1	20		
Vanadium	125	117	80 - 120	4	20	F	
Cobalt	124	113	80 - 120	9	20	F	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96039

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-28720-35	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	09/27/2011 1021		
Prep Date:	09/24/2011 1430		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28720-35
Client Matrix:	Solid
Dilution:	50
Analysis Date:	09/27/2011 1025
Prep Date:	09/24/2011 1430
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Aluminum	17000		251	247	21200	4	21000	4
Antimony	8.2		188	185	122	F	119	F
Arsenic	230		251	247	512		537	F
Beryllium	0.16	J	6.28	6.17	7.63		7.51	
Cadmium	0.78		6.28	6.17	7.97		8.21	
Chromium	11		25.1	24.7	40.8		39.4	
Copper	140		31.4	30.8	185	4	188	4
Lead	88		62.8	61.7	162		161	
Manganese	1300		62.8	61.7	1300	4	1180	4
Nickel	8.2		62.8	61.7	81.1		82.9	F
Selenium	1.2		251	247	282		285	
Silver	1.9		37.7	37.0	43.9		44.4	
Thallium	0.31	J	251	247	300		297	
Zinc	160		62.8	61.7	193	F	194	F
Sodium	390		1260	1230	2240	F	2130	F
Barium	52		251	247	353		349	
Vanadium	79		62.8	61.7	158	F	151	
Cobalt	19		62.8	61.7	96.5	F	88.3	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Serial Dilution - Batch: 580-96039

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-35	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	031SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0046 g
Analysis Date:	09/27/2011 1008	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	17000		17700	4.1	10	
Antimony	8.2		8.22	0.64	10	
Arsenic	230		231	0.06	10	
Beryllium	0.16	J	0.237	NC	10	J
Cadmium	0.78		0.811	3.4	10	J
Chromium	11		11.1	1.0	10	
Copper	140		138	0.24	10	
Lead	88		90.0	2.5	10	
Manganese	1300		1360	2.8	10	
Nickel	8.2		8.36	NC	10	
Selenium	1.2		1.48	NC	10	J
Silver	1.9		1.92	1.4	10	
Thallium	0.31	J	ND	NC	10	
Zinc	160		165	1.9	10	
Sodium	390		388	NC	10	J
Barium	52		52.0	0.77	10	
Vanadium	79		78.0	1.6	10	
Cobalt	19		18.9	1.7	10	

Duplicate - Batch: 580-96039

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-35	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	033SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0533 g
Analysis Date:	09/27/2011 1017	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	17000		16300	4	20	
Antimony	8.2		7.90	3	20	
Arsenic	230		223	4	20	
Beryllium	0.16	J	0.175	7	20	J
Cadmium	0.78		0.739	6	20	
Chromium	11		10.6	4	20	
Copper	140		133	4	20	
Lead	88		83.7	5	20	
Manganese	1300		1270	4	20	
Nickel	8.2		7.86	4	20	
Selenium	1.2		1.01	15	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-96039

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-28720-35	Analysis Batch:	580-96277	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-96039	Lab File ID:	033SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0533 g
Analysis Date:	09/27/2011 1017	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/24/2011 1430				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Silver	1.9		1.81	4	20	
Thallium	0.31	J	0.291	8	20	J
Zinc	160		155	4	20	
Sodium	390		384	1	20	
Barium	52		50.0	5	20	
Vanadium	79		77.9	2	20	
Cobalt	19		17.9	3	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-95932

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-95932/21-A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/23/2011 1337	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0053	0.017

LCS-Certified Reference Material - Batch: 580-95932

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96125	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.1011 g
Analysis Date:	09/23/2011 1342	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	22.3	137	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-95932

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-95932/22-A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/23/2011 1338	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				
Leach Date:	N/A				
LCSD Lab Sample ID:	LCSD 580-95932/23-A	Analysis Batch:	580-96125	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/23/2011 1340	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	106	114	80 - 120	8	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-95932

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-95932/22-A	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/23/2011 1338		
Prep Date:	09/22/2011 1557		
Leach Date:	N/A		

LCSD Lab Sample ID:	LCSD 580-95932/23-A		
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/23/2011 1340		
Prep Date:	09/22/2011 1557		
Leach Date:	N/A		

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.167	0.167	0.176	0.190

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95932

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28720-1	Analysis Batch:	580-96125	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.6106 g
Analysis Date:	09/23/2011 1543			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28720-1	Analysis Batch:	580-96125	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.6221 g
Analysis Date:	09/23/2011 1544			Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	3	7	80 - 120	1	20	4	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-95932

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28720-1	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	10		
Analysis Date:	09/23/2011 1543		
Prep Date:	09/22/2011 1557		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28720-1		
Client Matrix:	Solid		
Dilution:	10		
Analysis Date:	09/23/2011 1544		
Prep Date:	09/22/2011 1557		
Leach Date:	N/A		

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Mercury	1.2	0.176	0.173	1.24	4	1.24	4

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-95932

Method: 7471A
Preparation: 7471A

Lab Sample ID:	580-28720-1	Analysis Batch:	580-96125	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-95932	Lab File ID:	092311-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.6212 g
Analysis Date:	09/23/2011 1541	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/22/2011 1557				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	1.2	1.02	19	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-96254

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-96254/21-A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/28/2011 1300	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0053	0.017

LCS-Certified Reference Material - Batch: 580-96254

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.1131 g
Analysis Date:	09/28/2011 1305	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	18.4	113	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-96254

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-96254/22-A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/28/2011 1302	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				
Leach Date:	N/A				
LCSD Lab Sample ID:	LCSD 580-96254/23-A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/28/2011 1303	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	96	94	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-96254

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-96254/22-A	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/28/2011 1302		
Prep Date:	09/27/2011 1547		
Leach Date:	N/A		

LCSD Lab Sample ID:	LCSD 580-96254/23-A		
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/28/2011 1303		
Prep Date:	09/27/2011 1547		
Leach Date:	N/A		

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.167	0.167	0.160	0.157

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96254

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28720-19	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6203 g
Analysis Date:	09/28/2011 1310			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28720-19	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6720 g
Analysis Date:	09/28/2011 1312			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	88	92	80 - 120	2	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96254

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28720-19	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/28/2011 1310		
Prep Date:	09/27/2011 1547		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28720-19		
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/28/2011 1312		
Prep Date:	09/27/2011 1547		
Leach Date:	N/A		

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.24	0.251	0.232	0.458	0.448

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-96254

Method: 7471A
Preparation: 7471A

Lab Sample ID:	580-28720-19	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96254	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6209 g
Analysis Date:	09/28/2011 1309	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1547				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.24	0.218	8	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Method Blank - Batch: 580-96255

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-96255/12-A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/28/2011 1352	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0053	0.017

LCS-Certified Reference Material - Batch: 580-96255

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.0958 g
Analysis Date:	09/28/2011 1357	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	17.0	104	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-96255

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-96255/13-A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/28/2011 1354	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				
Leach Date:	N/A				
LCSD Lab Sample ID:	LCSD 580-96255/14-A	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	09/28/2011 1355	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	97	99	80 - 120	2	20		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-96255

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-96255/13-A	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/28/2011 1354		
Prep Date:	09/27/2011 1615		
Leach Date:	N/A		

LCSD Lab Sample ID:	LCSD 580-96255/14-A
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	09/28/2011 1355
Prep Date:	09/27/2011 1615
Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.167	0.167	0.161	0.165

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96255

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28720-36	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6245 g
Analysis Date:	09/28/2011 1402			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				
Leach Date:	N/A				

MSD Lab Sample ID:	580-28720-36	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6514 g
Analysis Date:	09/28/2011 1404			Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	104	102	80 - 120	3	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-96255

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-28720-36	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	09/28/2011 1402		
Prep Date:	09/27/2011 1615		
Leach Date:	N/A		

MSD Lab Sample ID:	580-28720-36
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	09/28/2011 1404
Prep Date:	09/27/2011 1615
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Mercury	0.23	0.234	0.224	0.475	0.461

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-96255

Method: 7471A
Preparation: 7471A

Lab Sample ID:	580-28720-36	Analysis Batch:	580-96373	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-96255	Lab File ID:	092811-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6409 g
Analysis Date:	09/28/2011 1401	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	09/27/2011 1615				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.23	0.219	6	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-96905

Method: 9045C
Preparation: N/A

Lab Sample ID:	580-28720-38	Analysis Batch:	580-96905	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/05/2011 0702	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	5.44	5.440	0.000		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-96906

Method: 9045C
Preparation: N/A

Lab Sample ID:	580-28720-41	Analysis Batch:	580-96906	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	10/03/2011 0710	Units:	SU	Final Weight/Volume:	1.0 mL
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	5.62	5.590	0.535		

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-95951

Method: Moisture
Preparation: N/A

Lab Sample ID:	580-28720-1	Analysis Batch:	580-95951	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/23/2011 0816	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	93	93	0.1	20	
Percent Moisture	6.9	6.8	2	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-95971

Method: Moisture
Preparation: N/A

Lab Sample ID:	580-28720-40	Analysis Batch:	580-95971	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/23/2011 0911	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	89	90	0.2	20	
Percent Moisture	11	10	2	20	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Duplicate - Batch: 580-95983

Method: Moisture
Preparation: N/A

Lab Sample ID:	580-28720-41	Analysis Batch:	580-95983	Instrument ID:	No Equipment
Client Matrix:	Solid	Prep Batch:	N/A	Lab File ID:	N/A
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	
Analysis Date:	09/23/2011 1020	Units:	%	Final Weight/Volume:	
Prep Date:	N/A				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Solids	79	78	0.9	20	
Percent Moisture	21	22	3	20	

DATA REPORTING QUALIFIERS

Client: Hart Crowser, Inc. Job Number: 580-28720-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	W	PS: Post-digestion spike was outside control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	F	RPD of the MS and MSD exceeds the control limits
	V	Serial Dilution exceeds the control limits

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-95932					
LCS 580-95932/22-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-95932/23-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-95932/24-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-95932/21-A	Method Blank	T	Solid	7471A	
580-28720-1	76 S-2 0-6	T	Solid	7471A	
580-28720-1DU	Duplicate	T	Solid	7471A	
580-28720-1MS	Matrix Spike	T	Solid	7471A	
580-28720-1MSD	Matrix Spike Duplicate	T	Solid	7471A	
580-28720-2	76 S-1 0-6	T	Solid	7471A	
580-28720-3	76-9	T	Solid	7471A	
580-28720-4	76-14	T	Solid	7471A	
580-28720-5	76-15	T	Solid	7471A	
580-28720-6	76-12	T	Solid	7471A	
580-28720-7	76-18	T	Solid	7471A	
580-28720-8	76-17	T	Solid	7471A	
580-28720-9	76-13	T	Solid	7471A	
580-28720-10	76-16	T	Solid	7471A	
580-28720-11	76-10	T	Solid	7471A	
580-28720-12	76-1	T	Solid	7471A	
580-28720-13	76-4	T	Solid	7471A	
580-28720-14	76-11	T	Solid	7471A	
580-28720-15	76-5	T	Solid	7471A	
580-28720-16	76-3	T	Solid	7471A	
580-28720-17	76-6	T	Solid	7471A	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-95937					
LCS 580-95937/22-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-95937/23-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-95937/24-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-95937/21-A	Method Blank	T	Solid	3050B	
580-28720-1	76 S-2 0-6	T	Solid	3050B	
580-28720-1DU	Duplicate	T	Solid	3050B	
580-28720-1MS	Matrix Spike	T	Solid	3050B	
580-28720-1MSD	Matrix Spike Duplicate	T	Solid	3050B	
580-28720-2	76 S-1 0-6	T	Solid	3050B	
580-28720-3	76-9	T	Solid	3050B	
580-28720-4	76-14	T	Solid	3050B	
580-28720-5	76-15	T	Solid	3050B	
580-28720-6	76-12	T	Solid	3050B	
580-28720-7	76-18	T	Solid	3050B	
580-28720-8	76-17	T	Solid	3050B	
580-28720-9	76-13	T	Solid	3050B	
580-28720-10	76-16	T	Solid	3050B	
580-28720-11	76-10	T	Solid	3050B	
580-28720-12	76-1	T	Solid	3050B	
580-28720-13	76-4	T	Solid	3050B	
580-28720-14	76-11	T	Solid	3050B	
580-28720-15	76-5	T	Solid	3050B	
580-28720-16	76-3	T	Solid	3050B	
580-28720-17	76-6	T	Solid	3050B	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-96018					
LCS 580-95937/22-A	Lab Control Sample	T	Solid	6020	580-95937
LCSD 580-95937/23-A	Lab Control Sample Duplicate	T	Solid	6020	580-95937
LCSSRM 580-95937/24-A	LCS-Certified Reference Material	T	Solid	6020	580-95937
MB 580-95937/21-A	Method Blank	T	Solid	6020	580-95937
580-28720-1	76 S-2 0-6	T	Solid	6020	580-95937
580-28720-1DU	Duplicate	T	Solid	6020	580-95937
580-28720-1MS	Matrix Spike	T	Solid	6020	580-95937
580-28720-1MSD	Matrix Spike Duplicate	T	Solid	6020	580-95937
580-28720-2	76 S-1 0-6	T	Solid	6020	580-95937
580-28720-3	76-9	T	Solid	6020	580-95937
580-28720-4	76-14	T	Solid	6020	580-95937
580-28720-5	76-15	T	Solid	6020	580-95937
580-28720-6	76-12	T	Solid	6020	580-95937
580-28720-7	76-18	T	Solid	6020	580-95937
580-28720-8	76-17	T	Solid	6020	580-95937
580-28720-9	76-13	T	Solid	6020	580-95937
580-28720-10	76-16	T	Solid	6020	580-95937
580-28720-11	76-10	T	Solid	6020	580-95937
580-28720-12	76-1	T	Solid	6020	580-95937
580-28720-13	76-4	T	Solid	6020	580-95937
580-28720-14	76-11	T	Solid	6020	580-95937
580-28720-15	76-5	T	Solid	6020	580-95937
580-28720-16	76-3	T	Solid	6020	580-95937
580-28720-17	76-6	T	Solid	6020	580-95937

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-96028					
LCS 580-96028/22-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-96028/23-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-96028/24-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-96028/21-A	Method Blank	T	Solid	3050B	
580-28720-18	76-2	T	Solid	3050B	
580-28720-18DU	Duplicate	T	Solid	3050B	
580-28720-18MS	Matrix Spike	T	Solid	3050B	
580-28720-18MSD	Matrix Spike Duplicate	T	Solid	3050B	
580-28720-19	W-22	T	Solid	3050B	
580-28720-20	W-3	T	Solid	3050B	
580-28720-21	W-19	T	Solid	3050B	
580-28720-22	W-2	T	Solid	3050B	
580-28720-23	W-16	T	Solid	3050B	
580-28720-24	W-7	T	Solid	3050B	
580-28720-25	W-21	T	Solid	3050B	
580-28720-26	W-23	T	Solid	3050B	
580-28720-27	W-18	T	Solid	3050B	
580-28720-28	W-1	T	Solid	3050B	
580-28720-29	W-17	T	Solid	3050B	
580-28720-30	G-9	T	Solid	3050B	
580-28720-31	G-12	T	Solid	3050B	
580-28720-32	G-8	T	Solid	3050B	
580-28720-33	76 S-2 6-12	T	Solid	3050B	
580-28720-34	G-7	T	Solid	3050B	
Prep Batch: 580-96039					
LCS 580-96039/13-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-96039/14-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-96039/15-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-96039/12-A	Method Blank	T	Solid	3050B	
580-28720-35	G-11	T	Solid	3050B	
580-28720-35DU	Duplicate	T	Solid	3050B	
580-28720-35MS	Matrix Spike	T	Solid	3050B	
580-28720-35MSD	Matrix Spike Duplicate	T	Solid	3050B	
580-28720-36	G-6	T	Solid	3050B	
580-28720-37	74 S-2 0-6	T	Solid	3050B	
580-28720-38	74 S-1 0-6	T	Solid	3050B	
580-28720-39	G-10	T	Solid	3050B	
580-28720-40	Emma 2 S-2 6-12	T	Solid	3050B	
580-28720-41	Emma 2 S-1 0-6	T	Solid	3050B	
580-28720-42	Emma 2 S-2 0-6	T	Solid	3050B	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-96078					
LCS 580-95937/22-A	Lab Control Sample	T	Solid	6010B	580-95937
LCSD 580-95937/23-A	Lab Control Sample Duplicate	T	Solid	6010B	580-95937
LCSSRM 580-95937/24-A	LCS-Certified Reference Material	T	Solid	6010B	580-95937
MB 580-95937/21-A	Method Blank	T	Solid	6010B	580-95937
LCS 580-96028/22-A	Lab Control Sample	T	Solid	6010B	580-96028
LCSD 580-96028/23-A	Lab Control Sample Duplicate	T	Solid	6010B	580-96028
LCSSRM 580-96028/24-A	LCS-Certified Reference Material	T	Solid	6010B	580-96028
MB 580-96028/21-A	Method Blank	T	Solid	6010B	580-96028
580-28720-1	76 S-2 0-6	T	Solid	6010B	580-95937
580-28720-1DU	Duplicate	T	Solid	6010B	580-95937
580-28720-1MS	Matrix Spike	T	Solid	6010B	580-95937
580-28720-1MSD	Matrix Spike Duplicate	T	Solid	6010B	580-95937
580-28720-2	76 S-1 0-6	T	Solid	6010B	580-95937
580-28720-3	76-9	T	Solid	6010B	580-95937
580-28720-4	76-14	T	Solid	6010B	580-95937
580-28720-5	76-15	T	Solid	6010B	580-95937
580-28720-6	76-12	T	Solid	6010B	580-95937
580-28720-7	76-18	T	Solid	6010B	580-95937
580-28720-8	76-17	T	Solid	6010B	580-95937
580-28720-9	76-13	T	Solid	6010B	580-95937
580-28720-10	76-16	T	Solid	6010B	580-95937
580-28720-11	76-10	T	Solid	6010B	580-95937
580-28720-12	76-1	T	Solid	6010B	580-95937
580-28720-13	76-4	T	Solid	6010B	580-95937
580-28720-14	76-11	T	Solid	6010B	580-95937
580-28720-15	76-5	T	Solid	6010B	580-95937
580-28720-16	76-3	T	Solid	6010B	580-95937
580-28720-17	76-6	T	Solid	6010B	580-95937
580-28720-18	76-2	T	Solid	6010B	580-96028
580-28720-18DU	Duplicate	T	Solid	6010B	580-96028
580-28720-18MS	Matrix Spike	T	Solid	6010B	580-96028
580-28720-18MSD	Matrix Spike Duplicate	T	Solid	6010B	580-96028
580-28720-19	W-22	T	Solid	6010B	580-96028
580-28720-20	W-3	T	Solid	6010B	580-96028
580-28720-21	W-19	T	Solid	6010B	580-96028
580-28720-22	W-2	T	Solid	6010B	580-96028
580-28720-23	W-16	T	Solid	6010B	580-96028
580-28720-24	W-7	T	Solid	6010B	580-96028
580-28720-25	W-21	T	Solid	6010B	580-96028
580-28720-26	W-23	T	Solid	6010B	580-96028
580-28720-27	W-18	T	Solid	6010B	580-96028
580-28720-28	W-1	T	Solid	6010B	580-96028
580-28720-29	W-17	T	Solid	6010B	580-96028
580-28720-30	G-9	T	Solid	6010B	580-96028
580-28720-31	G-12	T	Solid	6010B	580-96028
580-28720-32	G-8	T	Solid	6010B	580-96028

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-96078					
580-28720-33	76 S-2 6-12	T	Solid	6010B	580-96028
580-28720-34	G-7	T	Solid	6010B	580-96028
Analysis Batch:580-96125					
LCS 580-95932/22-A	Lab Control Sample	T	Solid	7471A	580-95932
LCSD 580-95932/23-A	Lab Control Sample Duplicate	T	Solid	7471A	580-95932
LCSSRM 580-95932/24-A	LCS-Certified Reference Material	T	Solid	7471A	580-95932
MB 580-95932/21-A	Method Blank	T	Solid	7471A	580-95932
580-28720-1	76 S-2 0-6	T	Solid	7471A	580-95932
580-28720-1DU	Duplicate	T	Solid	7471A	580-95932
580-28720-1MS	Matrix Spike	T	Solid	7471A	580-95932
580-28720-1MSD	Matrix Spike Duplicate	T	Solid	7471A	580-95932
580-28720-2	76 S-1 0-6	T	Solid	7471A	580-95932
580-28720-3	76-9	T	Solid	7471A	580-95932
580-28720-4	76-14	T	Solid	7471A	580-95932
580-28720-5	76-15	T	Solid	7471A	580-95932
580-28720-6	76-12	T	Solid	7471A	580-95932
580-28720-7	76-18	T	Solid	7471A	580-95932
580-28720-8	76-17	T	Solid	7471A	580-95932
580-28720-9	76-13	T	Solid	7471A	580-95932
580-28720-10	76-16	T	Solid	7471A	580-95932
580-28720-11	76-10	T	Solid	7471A	580-95932
580-28720-12	76-1	T	Solid	7471A	580-95932
580-28720-13	76-4	T	Solid	7471A	580-95932
580-28720-14	76-11	T	Solid	7471A	580-95932
580-28720-15	76-5	T	Solid	7471A	580-95932
580-28720-16	76-3	T	Solid	7471A	580-95932
580-28720-17	76-6	T	Solid	7471A	580-95932
Analysis Batch:580-96226					
LCS 580-96039/13-A	Lab Control Sample	T	Solid	6010B	580-96039
LCSD 580-96039/14-A	Lab Control Sample Duplicate	T	Solid	6010B	580-96039
LCSSRM 580-96039/15-A	LCS-Certified Reference Material	T	Solid	6010B	580-96039
MB 580-96039/12-A	Method Blank	T	Solid	6010B	580-96039
580-28720-35	G-11	T	Solid	6010B	580-96039
580-28720-35DU	Duplicate	T	Solid	6010B	580-96039
580-28720-35MS	Matrix Spike	T	Solid	6010B	580-96039
580-28720-35MSD	Matrix Spike Duplicate	T	Solid	6010B	580-96039
580-28720-36	G-6	T	Solid	6010B	580-96039
580-28720-37	74 S-2 0-6	T	Solid	6010B	580-96039
580-28720-38	74 S-1 0-6	T	Solid	6010B	580-96039
580-28720-39	G-10	T	Solid	6010B	580-96039
580-28720-40	Emma 2 S-2 6-12	T	Solid	6010B	580-96039
580-28720-41	Emma 2 S-1 0-6	T	Solid	6010B	580-96039
580-28720-42	Emma 2 S-2 0-6	T	Solid	6010B	580-96039

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-96254					
LCS 580-96254/22-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-96254/23-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-96254/24-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-96254/21-A	Method Blank	T	Solid	7471A	
580-28720-19	W-22	T	Solid	7471A	
580-28720-19DU	Duplicate	T	Solid	7471A	
580-28720-19MS	Matrix Spike	T	Solid	7471A	
580-28720-19MSD	Matrix Spike Duplicate	T	Solid	7471A	
580-28720-20	W-3	T	Solid	7471A	
580-28720-21	W-19	T	Solid	7471A	
580-28720-22	W-2	T	Solid	7471A	
580-28720-23	W-16	T	Solid	7471A	
580-28720-24	W-7	T	Solid	7471A	
580-28720-25	W-21	T	Solid	7471A	
580-28720-26	W-23	T	Solid	7471A	
580-28720-27	W-18	T	Solid	7471A	
580-28720-28	W-1	T	Solid	7471A	
580-28720-29	W-17	T	Solid	7471A	
580-28720-30	G-9	T	Solid	7471A	
580-28720-31	G-12	T	Solid	7471A	
580-28720-32	G-8	T	Solid	7471A	
580-28720-33	76 S-2 6-12	T	Solid	7471A	
580-28720-34	G-7	T	Solid	7471A	
580-28720-35	G-11	T	Solid	7471A	
Prep Batch: 580-96255					
LCS 580-96255/13-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-96255/14-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-96255/15-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-96255/12-A	Method Blank	T	Solid	7471A	
580-28720-18	76-2	T	Solid	7471A	
580-28720-36	G-6	T	Solid	7471A	
580-28720-36DU	Duplicate	T	Solid	7471A	
580-28720-36MS	Matrix Spike	T	Solid	7471A	
580-28720-36MSD	Matrix Spike Duplicate	T	Solid	7471A	
580-28720-37	74 S-2 0-6	T	Solid	7471A	
580-28720-38	74 S-1 0-6	T	Solid	7471A	
580-28720-39	G-10	T	Solid	7471A	
580-28720-40	Emma 2 S-2 6-12	T	Solid	7471A	
580-28720-41	Emma 2 S-1 0-6	T	Solid	7471A	
580-28720-42	Emma 2 S-2 0-6	T	Solid	7471A	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-96277					
LCS 580-96028/22-A	Lab Control Sample	T	Solid	6020	580-96028
LCSD 580-96028/23-A	Lab Control Sample Duplicate	T	Solid	6020	580-96028
LCSSRM 580-96028/24-A	LCS-Certified Reference Material	T	Solid	6020	580-96028
MB 580-96028/21-A	Method Blank	T	Solid	6020	580-96028
LCS 580-96039/13-A	Lab Control Sample	T	Solid	6020	580-96039
LCSD 580-96039/14-A	Lab Control Sample Duplicate	T	Solid	6020	580-96039
LCSSRM 580-96039/15-A	LCS-Certified Reference Material	T	Solid	6020	580-96039
MB 580-96039/12-A	Method Blank	T	Solid	6020	580-96039
580-28720-18	76-2	T	Solid	6020	580-96028
580-28720-18DU	Duplicate	T	Solid	6020	580-96028
580-28720-18MS	Matrix Spike	T	Solid	6020	580-96028
580-28720-18MSD	Matrix Spike Duplicate	T	Solid	6020	580-96028
580-28720-19	W-22	T	Solid	6020	580-96028
580-28720-20	W-3	T	Solid	6020	580-96028
580-28720-21	W-19	T	Solid	6020	580-96028
580-28720-22	W-2	T	Solid	6020	580-96028
580-28720-23	W-16	T	Solid	6020	580-96028
580-28720-24	W-7	T	Solid	6020	580-96028
580-28720-25	W-21	T	Solid	6020	580-96028
580-28720-26	W-23	T	Solid	6020	580-96028
580-28720-27	W-18	T	Solid	6020	580-96028
580-28720-28	W-1	T	Solid	6020	580-96028
580-28720-29	W-17	T	Solid	6020	580-96028
580-28720-30	G-9	T	Solid	6020	580-96028
580-28720-31	G-12	T	Solid	6020	580-96028
580-28720-32	G-8	T	Solid	6020	580-96028
580-28720-33	76 S-2 6-12	T	Solid	6020	580-96028
580-28720-34	G-7	T	Solid	6020	580-96028
580-28720-35	G-11	T	Solid	6020	580-96039
580-28720-35DU	Duplicate	T	Solid	6020	580-96039
580-28720-35MS	Matrix Spike	T	Solid	6020	580-96039
580-28720-35MSD	Matrix Spike Duplicate	T	Solid	6020	580-96039
580-28720-36	G-6	T	Solid	6020	580-96039
580-28720-37	74 S-2 0-6	T	Solid	6020	580-96039
580-28720-38	74 S-1 0-6	T	Solid	6020	580-96039
580-28720-39	G-10	T	Solid	6020	580-96039
580-28720-40	Emma 2 S-2 6-12	T	Solid	6020	580-96039
580-28720-41	Emma 2 S-1 0-6	T	Solid	6020	580-96039
580-28720-42	Emma 2 S-2 0-6	T	Solid	6020	580-96039

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-96373					
LCS 580-96254/22-A	Lab Control Sample	T	Solid	7471A	580-96254
LCSD 580-96254/23-A	Lab Control Sample Duplicate	T	Solid	7471A	580-96254
LCSSRM 580-96254/24-A	LCS-Certified Reference Material	T	Solid	7471A	580-96254
MB 580-96254/21-A	Method Blank	T	Solid	7471A	580-96254
LCS 580-96255/13-A	Lab Control Sample	T	Solid	7471A	580-96255
LCSD 580-96255/14-A	Lab Control Sample Duplicate	T	Solid	7471A	580-96255
LCSSRM 580-96255/15-A	LCS-Certified Reference Material	T	Solid	7471A	580-96255
MB 580-96255/12-A	Method Blank	T	Solid	7471A	580-96255
580-28720-18	76-2	T	Solid	7471A	580-96255
580-28720-19	W-22	T	Solid	7471A	580-96254
580-28720-19DU	Duplicate	T	Solid	7471A	580-96254
580-28720-19MS	Matrix Spike	T	Solid	7471A	580-96254
580-28720-19MSD	Matrix Spike Duplicate	T	Solid	7471A	580-96254
580-28720-20	W-3	T	Solid	7471A	580-96254
580-28720-21	W-19	T	Solid	7471A	580-96254
580-28720-22	W-2	T	Solid	7471A	580-96254
580-28720-23	W-16	T	Solid	7471A	580-96254
580-28720-24	W-7	T	Solid	7471A	580-96254
580-28720-25	W-21	T	Solid	7471A	580-96254
580-28720-26	W-23	T	Solid	7471A	580-96254
580-28720-27	W-18	T	Solid	7471A	580-96254
580-28720-28	W-1	T	Solid	7471A	580-96254
580-28720-29	W-17	T	Solid	7471A	580-96254
580-28720-30	G-9	T	Solid	7471A	580-96254
580-28720-31	G-12	T	Solid	7471A	580-96254
580-28720-32	G-8	T	Solid	7471A	580-96254
580-28720-33	76 S-2 6-12	T	Solid	7471A	580-96254
580-28720-34	G-7	T	Solid	7471A	580-96254
580-28720-35	G-11	T	Solid	7471A	580-96254
580-28720-36	G-6	T	Solid	7471A	580-96255
580-28720-36DU	Duplicate	T	Solid	7471A	580-96255
580-28720-36MS	Matrix Spike	T	Solid	7471A	580-96255
580-28720-36MSD	Matrix Spike Duplicate	T	Solid	7471A	580-96255
580-28720-37	74 S-2 0-6	T	Solid	7471A	580-96255
580-28720-38	74 S-1 0-6	T	Solid	7471A	580-96255
580-28720-39	G-10	T	Solid	7471A	580-96255
580-28720-40	Emma 2 S-2 6-12	T	Solid	7471A	580-96255
580-28720-41	Emma 2 S-1 0-6	T	Solid	7471A	580-96255
580-28720-42	Emma 2 S-2 0-6	T	Solid	7471A	580-96255

Report Basis
T = Total

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:580-95870					
580-28720-1	76 S-2 0-6	T	Solid	9045C	
580-28720-2	76 S-1 0-6	T	Solid	9045C	
580-28720-3	76-9	T	Solid	9045C	
Analysis Batch:580-95951					
580-28720-1	76 S-2 0-6	T	Solid	Moisture	
580-28720-1DU	Duplicate	T	Solid	Moisture	
580-28720-2	76 S-1 0-6	T	Solid	Moisture	
580-28720-3	76-9	T	Solid	Moisture	
580-28720-4	76-14	T	Solid	Moisture	
580-28720-5	76-15	T	Solid	Moisture	
580-28720-6	76-12	T	Solid	Moisture	
580-28720-7	76-18	T	Solid	Moisture	
580-28720-8	76-17	T	Solid	Moisture	
580-28720-9	76-13	T	Solid	Moisture	
580-28720-10	76-16	T	Solid	Moisture	
580-28720-11	76-10	T	Solid	Moisture	
580-28720-12	76-1	T	Solid	Moisture	
580-28720-13	76-4	T	Solid	Moisture	
580-28720-14	76-11	T	Solid	Moisture	
580-28720-15	76-5	T	Solid	Moisture	
580-28720-16	76-3	T	Solid	Moisture	
580-28720-17	76-6	T	Solid	Moisture	
580-28720-18	76-2	T	Solid	Moisture	
580-28720-19	W-22	T	Solid	Moisture	
580-28720-20	W-3	T	Solid	Moisture	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:580-95971					
580-28720-21	W-19	T	Solid	Moisture	
580-28720-22	W-2	T	Solid	Moisture	
580-28720-23	W-16	T	Solid	Moisture	
580-28720-24	W-7	T	Solid	Moisture	
580-28720-25	W-21	T	Solid	Moisture	
580-28720-26	W-23	T	Solid	Moisture	
580-28720-27	W-18	T	Solid	Moisture	
580-28720-28	W-1	T	Solid	Moisture	
580-28720-29	W-17	T	Solid	Moisture	
580-28720-30	G-9	T	Solid	Moisture	
580-28720-31	G-12	T	Solid	Moisture	
580-28720-32	G-8	T	Solid	Moisture	
580-28720-33	76 S-2 6-12	T	Solid	Moisture	
580-28720-34	G-7	T	Solid	Moisture	
580-28720-35	G-11	T	Solid	Moisture	
580-28720-36	G-6	T	Solid	Moisture	
580-28720-37	74 S-2 0-6	T	Solid	Moisture	
580-28720-38	74 S-1 0-6	T	Solid	Moisture	
580-28720-39	G-10	T	Solid	Moisture	
580-28720-40	Emma 2 S-2 6-12	T	Solid	Moisture	
580-28720-40DU	Duplicate	T	Solid	Moisture	
Analysis Batch:580-95983					
580-28720-41	Emma 2 S-1 0-6	T	Solid	Moisture	
580-28720-41DU	Duplicate	T	Solid	Moisture	
580-28720-42	Emma 2 S-2 0-6	T	Solid	Moisture	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:580-96753					
580-28720-4	76-14	T	Solid	9045C	
580-28720-5	76-15	T	Solid	9045C	
580-28720-6	76-12	T	Solid	9045C	
580-28720-7	76-18	T	Solid	9045C	
580-28720-8	76-17	T	Solid	9045C	
580-28720-9	76-13	T	Solid	9045C	
580-28720-10	76-16	T	Solid	9045C	
580-28720-11	76-10	T	Solid	9045C	
580-28720-12	76-1	T	Solid	9045C	
580-28720-13	76-4	T	Solid	9045C	
580-28720-14	76-11	T	Solid	9045C	
580-28720-15	76-5	T	Solid	9045C	
580-28720-16	76-3	T	Solid	9045C	
580-28720-17	76-6	T	Solid	9045C	
580-28720-18	76-2	T	Solid	9045C	
580-28720-19	W-22	T	Solid	9045C	
580-28720-20	W-3	T	Solid	9045C	
580-28720-21	W-19	T	Solid	9045C	
Analysis Batch:580-96905					
580-28720-22	W-2	T	Solid	9045C	
580-28720-23	W-16	T	Solid	9045C	
580-28720-24	W-7	T	Solid	9045C	
580-28720-25	W-21	T	Solid	9045C	
580-28720-26	W-23	T	Solid	9045C	
580-28720-27	W-18	T	Solid	9045C	
580-28720-28	W-1	T	Solid	9045C	
580-28720-29	W-17	T	Solid	9045C	
580-28720-30	G-9	T	Solid	9045C	
580-28720-31	G-12	T	Solid	9045C	
580-28720-32	G-8	T	Solid	9045C	
580-28720-33	76 S-2 6-12	T	Solid	9045C	
580-28720-34	G-7	T	Solid	9045C	
580-28720-35	G-11	T	Solid	9045C	
580-28720-36	G-6	T	Solid	9045C	
580-28720-37	74 S-2 0-6	T	Solid	9045C	
580-28720-38	74 S-1 0-6	T	Solid	9045C	
580-28720-38DU	Duplicate	T	Solid	9045C	
Analysis Batch:580-96906					
580-28720-39	G-10	T	Solid	9045C	
580-28720-40	Emma 2 S-2 6-12	T	Solid	9045C	
580-28720-41	Emma 2 S-1 0-6	T	Solid	9045C	
580-28720-41DU	Duplicate	T	Solid	9045C	
580-28720-42	Emma 2 S-2 0-6	T	Solid	9045C	

Client: Hart Crowser, Inc. Job Number: 580-28720-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch

Report Basis
T = Total

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Hg_CAL_WORK_00008	10/12/11	07/12/11	H2O, Lot standard	1000 mg/L	Hg_CAL_STOCK_00001	1 mL	Mercury	0.1 mg/L
.Hg_CAL_STOCK_00001	06/30/14	AccuStandard, Lot B7045094-1A			(Purchased Reagent)		Mercury	100 mg/L
Hg_ICV_WORK_00009	10/12/11	07/12/11	H2O, Lot standard	1000 mg/L	Hg_ICV_STOCK_00002	1 mL	Mercury	0.1 mg/L
.Hg_ICV_STOCK_00002	01/29/12	CPI, Lot 10D252			(Purchased Reagent)		Mercury	100 mg/L
Hg_SPK_WORK_00008	10/12/11	07/12/11	H2O, Lot standard	1000 mg/L	Hg_CAL_STOCK_00001	1 mL	Mercury	0.1 mg/L
.Hg_CAL_STOCK_00001	06/30/14	AccuStandard, Lot B7045094-1A			(Purchased Reagent)		Mercury	100 mg/L
ICP CCV_00033	07/28/12	08/03/11	DI, Lot NA	1000 mL	ICP Std SolnA_00001	2 mL	Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	20 mg/L
.ICP Std SolnA_00001	07/28/12	CPI, Lot 11A193			(Purchased Reagent)		Calcium	10000 ug/mL
							Iron	5000 ug/mL
							Magnesium	10000 ug/mL
							Potassium	10000 ug/mL
ICP ICSA_00036	11/26/12	08/03/11	DI, Lot NA	500 mL	ICP ICSA_00033	50 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
.ICP ICSA_00033	11/26/12	CPI, Lot 11E080			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
ICP ICSAB_00028	11/26/12	08/03/11	H2O, Lot NA	500 mL	ICP ICSA_00033	50 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
					ICPICSB_B_00004	5 mL	Silver	3 mg/L
					ICPICSB-A_00003	5 mL	Arsenic	10 mg/L
							Barium	3 mg/L
							Beryllium	1 mg/L
							Cadmium	3 mg/L
							Chromium	3 mg/L
							Cobalt	3 mg/L
							Copper	3 mg/L
							Lead	10 mg/L
							Manganese	2 mg/L
							Nickel	3 mg/L
							Potassium	200 mg/L
							Selenium	5 mg/L
							Thallium	10 mg/L
							Vanadium	3 mg/L
							Zinc	3 mg/L
					ICPICSB-C_00003	5 mL	Antimony	10 mg/L
					ICPICSB-D_00003	5 mL	Mo	3 mg/L
.ICP ICSA_00033	11/26/12	CPI, Lot 11E080			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
.ICPICSB B_00004	11/26/12		CPI, Lot 09F247		(Purchased Reagent)		Silver	300 ug/mL
.ICPICSB-A_00003	11/26/12		CPI, Lot 09F247		(Purchased Reagent)		Arsenic	1000 ug/mL
							Barium	300 ug/mL
							Beryllium	100 ug/mL
							Cadmium	300 ug/mL
							Chromium	300 ug/mL
							Cobalt	300 ug/mL
							Copper	300 ug/mL
							Lead	1000 ug/mL
							Manganese	200 ug/mL
							Nickel	300 ug/mL
							Potassium	20000 ug/mL
							Selenium	500 ug/mL
							Thallium	1000 ug/mL
							Vanadium	300 ug/mL
							Zinc	300 ug/mL
.ICPICSB-C_00003	11/26/12		CPI, Lot 09F281		(Purchased Reagent)		Antimony	1000 ug/mL
.ICPICSB-D_00003	11/26/12		CPI, Lot 10I156		(Purchased Reagent)		Mo	300 ug/mL
ICP ICV-2_00015	02/10/12	08/03/11	blk, Lot NA	500 mL	ICP ICV B_00002	2.5 mL	Calcium	5 mg/L
							Iron	5 mg/L
							Magnesium	5 mg/L
					ICP ICV C_00002	2.5 mL	Potassium	15 mg/L
.ICP ICV B_00002	02/29/12		Elements, Lot CS7012110		(Purchased Reagent)		Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
.ICP ICV C_00002	02/29/12		Elements, Lot CS7012111		(Purchased Reagent)		Potassium	3000 mg/L
ICP RL_00020	02/10/12	08/03/11	DI, Lot NA	500 mL	ICP ICV B_00002	0.05 mL	Calcium	1.1 mg/L
							Iron	0.2 mg/L
							Magnesium	1.1 mg/L
					ICP ICV C_00002	0.05 mL	Potassium	3.3 mg/L
					ICP RL 02A_00002	0.5 mL	Iron	0.2 mg/L
					ICP RL 02B_00002	0.5 mL	Calcium	1.1 mg/L
							Magnesium	1.1 mg/L
							Potassium	3.3 mg/L
.ICP ICV B_00002	02/29/12		Elements, Lot CS7012110		(Purchased Reagent)		Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
.ICP ICV C_00002	02/29/12		Elements, Lot CS7012111		(Purchased Reagent)		Potassium	3000 mg/L
.ICP RL 02A_00002	02/29/12		Elements, Lot cs7012137		(Purchased Reagent)		Iron	100 mg/L
.ICP RL 02B_00002	02/29/12		Elements, Lot CS7012138		(Purchased Reagent)		Calcium	1000 mg/L
							Magnesium	1000 mg/L
							Potassium	3000 mg/L
ICPMS- ICSA_00002	12/01/11		Inorganic Ventures, Lot d2-meb329124		(Purchased Reagent)		Aluminum	1000 ug/mL
							Calcium	3000 ug/mL
							Iron	2500 ug/mL
							Magnesium	1000 ug/mL
							Mo	200 ug/mL

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							P	1000 ug/mL
							Potassium	1000 ug/mL
							Sodium	2500 ug/mL
							Ti	20 ug/mL
ICPMS-ICSB_00002	12/01/11	Inorganic Ventures, Lot d2-meb324099			(Purchased Reagent)		Arsenic	10 ug/mL
							Cadmium	10 ug/mL
							Chromium	20 ug/mL
							Cobalt	20 ug/mL
							Copper	20 ug/mL
							Manganese	20 ug/mL
							Nickel	20 ug/mL
							Selenium	10 ug/mL
							Silver	5 ug/mL
							Vanadium	20 ug/mL
							Zinc	10 ug/mL
ICPMS_CAL_WOR_00008	12/22/11	09/22/11	H2O, Lot 092211	1000 mL	ICPMS_CAL_00002	10 mL	Aluminum	1000 ug/L
							Antimony	100 ug/L
							Arsenic	100 ug/L
							Barium	100 ug/L
							Beryllium	100 ug/L
							Cadmium	100 ug/L
							Chromium	100 ug/L
							Cobalt	100 ug/L
							Copper	100 ug/L
							Lead	100 ug/L
							Manganese	100 ug/L
							Nickel	100 ug/L
							Selenium	100 ug/L
							Silver	100 ug/L
							Sodium	10000 ug/L
							Thallium	100 ug/L
							Vanadium	100 ug/L
							Zinc	100 ug/L
.ICPMS_CAL_00002	02/09/13	CPI, Lot 11H057			(Purchased Reagent)		Aluminum	100 mg/L
							Antimony	10 mg/L
							Arsenic	10 mg/L
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Lead	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L
							Selenium	10 mg/L
							Silver	10 mg/L
							Sodium	1000 mg/L
							Thallium	10 mg/L
							Vanadium	10 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zinc	10 mg/L
ICPMS_ICV_WOR_00010	11/15/11	08/15/11	H2O, Lot 021511	1000 mL	ICPMS_ICV_00003	4 mL	Aluminum	400 ug/L
							Antimony	40 ug/L
							Arsenic	40 ug/L
							Barium	40 ug/L
							Beryllium	40 ug/L
							Cadmium	40 ug/L
							Chromium	40 ug/L
							Cobalt	40 ug/L
							Copper	40 ug/L
							Lead	40 ug/L
							Manganese	40 ug/L
							Nickel	40 ug/L
							Selenium	40 ug/L
							Silver	40 ug/L
							Sodium	4000 ug/L
							Thallium	40 ug/L
							Vanadium	40 ug/L
							Zinc	40 ug/L
.ICPMS_ICV_00003	01/30/12		SPEX, Lot 5-236cr		(Purchased Reagent)		Aluminum	100 mg/L
							Antimony	10 mg/L
							Arsenic	10 mg/L
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Lead	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L
							Selenium	10 mg/L
							Silver	10 mg/L
							Sodium	1000 mg/L
							Thallium	10 mg/L
							Vanadium	10 mg/L
							Zinc	10 mg/L
m-GPS-1_00021	12/29/12		CPI, Lot 11F316		(Purchased Reagent)		Aluminum	200 ppm
							Antimony	50 ppm
							Arsenic	200 ppm
							Barium	200 ppm
							Beryllium	5 ppm
							Cadmium	5 ppm
							Chromium	20 ppm
							Cobalt	50 ppm
							Copper	25 ppm
							Iron	100 ppm
							Lead	50 ppm
							Manganese	50 ppm
							Nickel	50 ppm

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Selenium	200 ppm
							Silver	5 ppm
							Thallium	200 ppm
							Vanadium	50 ppm
							Zinc	50 ppm
m-GPS-2_00018	12/29/12	CPI, Lot 11F317			(Purchased Reagent)		Antimony	100 ppm
							Silver	25 ppm
m-GPS-3_00018	12/29/12	CPI, Lot 11F319			(Purchased Reagent)		Calcium	1000 ppm
							Iron	1000 ppm
							Magnesium	1000 ppm
							P	1000 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
m-GPS-4_00020	12/29/12	CPI, Lot 11F318			(Purchased Reagent)		B	250 ppm
							Mo	250 ppm
							Sn	250 ppm
							Ti	250 ppm
MS-HgSpk_00011	05/10/12	05/10/11	H2O, Lot standard	1000 mg/L	Hg_CAL_STOCK_00001	25 mL	Mercury	2.5 mg/L
.Hg_CAL_STOCK_00001	06/30/14	AccuStandard, Lot B7045094-1A			(Purchased Reagent)		Mercury	100 mg/L
pH 7 ICV_00002	03/31/12	RICCA, Lot 1003521			(Purchased Reagent)		pH	7 %
SRMsolid_00006	01/31/14	ERA, Lot D069-540			(Purchased Reagent)		Aluminum	9780 mg/Kg
							Antimony	121 mg/Kg
							Arsenic	109 mg/Kg
							B	142 mg/Kg
							Barium	325 mg/Kg
							Beryllium	92.1 mg/Kg
							Cadmium	110 mg/Kg
							Calcium	6700 mg/Kg
							Chromium	93.4 mg/Kg
							Cobalt	133 mg/Kg
							Copper	84.7 mg/Kg
							Iron	13100 mg/Kg
							Lead	152 mg/Kg
							Magnesium	2980 mg/Kg
							Manganese	443 mg/Kg
							Mercury	16.3 mg/Kg
							Mo	82.5 mg/Kg
							Nickel	109 mg/Kg
							Potassium	2770 mg/Kg
							Selenium	207 mg/Kg
							Silver	51.9 mg/Kg
							Sn	135 mg/Kg
							Sodium	724 mg/Kg
							Sr	111 mg/Kg
							Thallium	171 mg/Kg
							Ti	193 mg/Kg
							Vanadium	110 mg/Kg

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zinc	299 mg/Kg

Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Monte Cristo Mine

TestAmerica Job ID: 580-28720-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG No.:

Project: Monte Cristo Mine

Client Sample ID	Lab Sample ID
76 S-2 0-6	580-28720-1
76 S-1 0-6	580-28720-2
76-9	580-28720-3
76-14	580-28720-4
76-15	580-28720-5
76-12	580-28720-6
76-18	580-28720-7
76-17	580-28720-8
76-13	580-28720-9
76-16	580-28720-10
76-10	580-28720-11
76-1	580-28720-12
76-4	580-28720-13
76-11	580-28720-14
76-5	580-28720-15
76-3	580-28720-16
76-6	580-28720-17
76-2	580-28720-18
W-22	580-28720-19
W-3	580-28720-20
W-19	580-28720-21
W-2	580-28720-22
W-16	580-28720-23
W-7	580-28720-24
W-21	580-28720-25
W-23	580-28720-26
W-18	580-28720-27
W-1	580-28720-28
W-17	580-28720-29
G-9	580-28720-30
G-12	580-28720-31
G-8	580-28720-32
76 S-2 6-12	580-28720-33
G-7	580-28720-34
G-11	580-28720-35
G-6	580-28720-36
74 S-2 0-6	580-28720-37
74 S-1 0-6	580-28720-38
G-10	580-28720-39
Emma 2 S-2 6-12	580-28720-40
Emma 2 S-1 0-6	580-28720-41
Emma 2 S-2 0-6	580-28720-42

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76 S-2 0-6 | Lab Sample ID: 580-28720-1

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/13/2011 17:30

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 93.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	70000	960	59	mg/Kg		B	100	6010B
7440-09-7	Potassium	400	160	15	mg/Kg			1	6010B
7440-70-2	Calcium	1000	53	3.0	mg/Kg		B	1	6010B
7439-95-4	Magnesium	440	53	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	1200	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	300	0.19	0.040	mg/Kg			10	6020
7440-38-2	Arsenic	8600	48	17	mg/Kg			1000	6020
7440-41-7	Beryllium	0.18	0.19	0.021	mg/Kg	J		10	6020
7440-43-9	Cadmium	10	0.19	0.0077	mg/Kg			10	6020
7440-47-3	Chromium	0.74	0.19	0.11	mg/Kg			10	6020
7440-50-8	Copper	160	0.19	0.094	mg/Kg			10	6020
7439-92-1	Lead	1000	0.19	0.012	mg/Kg			10	6020
7439-96-5	Manganese	4800	48	16	mg/Kg			1000	6020
7440-02-0	Nickel	3.1	0.19	0.19	mg/Kg		B	10	6020
7782-49-2	Selenium	0.33	0.67	0.19	mg/Kg	J		10	6020
7440-22-4	Silver	12	0.19	0.012	mg/Kg			10	6020
7440-28-0	Thallium	0.45	0.48	0.12	mg/Kg	J		10	6020
7440-66-6	Zinc	1800	0.67	1.1	mg/Kg			10	6020
7440-23-5	Sodium	ND	96	38	mg/Kg			10	6020
7440-39-3	Barium	12	0.19	0.029	mg/Kg			10	6020
7440-62-2	Vanadium	12	0.67	0.45	mg/Kg			10	6020
7440-48-4	Cobalt	15	0.19	0.018	mg/Kg		B	10	6020
7439-97-6	Mercury	1.2	0.17	0.053	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76 S-1 0-6 | Lab Sample ID: 580-28720-2

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/13/2011 16:40

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 70.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	87000	1400	86	mg/Kg		B	100	6010B
7440-09-7	Potassium	660	230	23	mg/Kg			1	6010B
7440-70-2	Calcium	5600	77	4.4	mg/Kg		B	1	6010B
7439-95-4	Magnesium	3600	77	4.5	mg/Kg			1	6010B
7429-90-5	Aluminum	11000	42	4.2	mg/Kg			10	6020
7440-36-0	Antimony	220	0.28	0.059	mg/Kg			10	6020
7440-38-2	Arsenic	11000	70	25	mg/Kg			1000	6020
7440-41-7	Beryllium	0.35	0.28	0.031	mg/Kg			10	6020
7440-43-9	Cadmium	31	0.28	0.011	mg/Kg			10	6020
7440-47-3	Chromium	15	0.28	0.16	mg/Kg			10	6020
7440-50-8	Copper	410	0.28	0.14	mg/Kg			10	6020
7439-92-1	Lead	1700	0.28	0.018	mg/Kg			10	6020
7439-96-5	Manganese	2800	0.70	0.24	mg/Kg			10	6020
7440-02-0	Nickel	12	0.28	0.29	mg/Kg		B	10	6020
7782-49-2	Selenium	2.3	0.99	0.28	mg/Kg			10	6020
7440-22-4	Silver	29	0.28	0.017	mg/Kg			10	6020
7440-28-0	Thallium	0.26	0.70	0.18	mg/Kg	J		10	6020
7440-66-6	Zinc	4700	99	160	mg/Kg			1000	6020
7440-23-5	Sodium	99	140	55	mg/Kg	J		10	6020
7440-39-3	Barium	33	0.28	0.042	mg/Kg			10	6020
7440-62-2	Vanadium	99	0.99	0.67	mg/Kg			10	6020
7440-48-4	Cobalt	21	0.28	0.027	mg/Kg		B	10	6020
7439-97-6	Mercury	1.2	0.23	0.072	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-9 | Lab Sample ID: 580-28720-3

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 12:15

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 57.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	33000	1700	100	mg/Kg		B	100	6010B
7440-09-7	Potassium	530	280	27	mg/Kg			1	6010B
7440-70-2	Calcium	450	93	5.2	mg/Kg		B	1	6010B
7439-95-4	Magnesium	3000	93	5.4	mg/Kg			1	6010B
7429-90-5	Aluminum	56000	50	5.0	mg/Kg			10	6020
7440-36-0	Antimony	7.6	0.34	0.071	mg/Kg			10	6020
7440-38-2	Arsenic	330	0.84	0.30	mg/Kg			10	6020
7440-41-7	Beryllium	0.62	0.34	0.037	mg/Kg			10	6020
7440-43-9	Cadmium	0.90	0.34	0.013	mg/Kg			10	6020
7440-47-3	Chromium	19	0.34	0.19	mg/Kg			10	6020
7440-50-8	Copper	480	0.34	0.16	mg/Kg			10	6020
7439-92-1	Lead	60	0.34	0.022	mg/Kg			10	6020
7439-96-5	Manganese	300	0.84	0.29	mg/Kg			10	6020
7440-02-0	Nickel	11	0.34	0.34	mg/Kg		B	10	6020
7782-49-2	Selenium	3.8	1.2	0.34	mg/Kg			10	6020
7440-22-4	Silver	1.3	0.34	0.020	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.84	0.22	mg/Kg			10	6020
7440-66-6	Zinc	120	1.2	1.9	mg/Kg			10	6020
7440-23-5	Sodium	ND	170	66	mg/Kg			10	6020
7440-39-3	Barium	38	0.34	0.050	mg/Kg			10	6020
7440-62-2	Vanadium	36	1.2	0.80	mg/Kg			10	6020
7440-48-4	Cobalt	4.3	0.34	0.032	mg/Kg		B	10	6020
7439-97-6	Mercury	0.35	0.027	0.0086	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-14 | Lab Sample ID: 580-28720-4

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 13:50

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 56.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	5400	16	1.0	mg/Kg		B	1	6010B
7440-09-7	Potassium	40	270	26	mg/Kg	J		1	6010B
7440-70-2	Calcium	370	90	5.1	mg/Kg		B	1	6010B
7439-95-4	Magnesium	160	90	5.3	mg/Kg			1	6010B
7429-90-5	Aluminum	25000	49	4.9	mg/Kg			10	6020
7440-36-0	Antimony	1.9	0.33	0.069	mg/Kg			10	6020
7440-38-2	Arsenic	65	0.82	0.30	mg/Kg			10	6020
7440-41-7	Beryllium	0.44	0.33	0.036	mg/Kg			10	6020
7440-43-9	Cadmium	0.35	0.33	0.013	mg/Kg			10	6020
7440-47-3	Chromium	4.6	0.33	0.19	mg/Kg			10	6020
7440-50-8	Copper	30	0.33	0.16	mg/Kg			10	6020
7439-92-1	Lead	17	0.33	0.021	mg/Kg			10	6020
7439-96-5	Manganese	560	0.82	0.28	mg/Kg			10	6020
7440-02-0	Nickel	0.96	0.33	0.33	mg/Kg		B	10	6020
7782-49-2	Selenium	1.5	1.1	0.33	mg/Kg			10	6020
7440-22-4	Silver	0.80	0.33	0.020	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.82	0.21	mg/Kg			10	6020
7440-66-6	Zinc	26	1.1	1.8	mg/Kg			10	6020
7440-23-5	Sodium	ND	160	64	mg/Kg			10	6020
7440-39-3	Barium	8.1	0.33	0.049	mg/Kg			10	6020
7440-62-2	Vanadium	10	1.1	0.78	mg/Kg			10	6020
7440-48-4	Cobalt	28	0.33	0.031	mg/Kg		B	10	6020
7439-97-6	Mercury	0.20	0.026	0.0083	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-15 | Lab Sample ID: 580-28720-5

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 13:20

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 62.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	22000	1400	88	mg/Kg		B	100	6010B
7440-09-7	Potassium	300	240	23	mg/Kg			1	6010B
7440-70-2	Calcium	810	79	4.5	mg/Kg		B	1	6010B
7439-95-4	Magnesium	2000	79	4.6	mg/Kg			1	6010B
7429-90-5	Aluminum	27000	43	4.3	mg/Kg			10	6020
7440-36-0	Antimony	1.7	0.29	0.061	mg/Kg			10	6020
7440-38-2	Arsenic	48	0.72	0.26	mg/Kg			10	6020
7440-41-7	Beryllium	0.36	0.29	0.032	mg/Kg			10	6020
7440-43-9	Cadmium	0.14	0.29	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	12	0.29	0.16	mg/Kg			10	6020
7440-50-8	Copper	28	0.29	0.14	mg/Kg			10	6020
7439-92-1	Lead	22	0.29	0.019	mg/Kg			10	6020
7439-96-5	Manganese	130	0.72	0.25	mg/Kg			10	6020
7440-02-0	Nickel	6.2	0.29	0.29	mg/Kg		B	10	6020
7782-49-2	Selenium	1.1	1.0	0.29	mg/Kg			10	6020
7440-22-4	Silver	0.53	0.29	0.017	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.72	0.19	mg/Kg			10	6020
7440-66-6	Zinc	34	1.0	1.6	mg/Kg			10	6020
7440-23-5	Sodium	ND	140	57	mg/Kg			10	6020
7440-39-3	Barium	31	0.29	0.043	mg/Kg			10	6020
7440-62-2	Vanadium	55	1.0	0.68	mg/Kg			10	6020
7440-48-4	Cobalt	3.4	0.29	0.027	mg/Kg		B	10	6020
7439-97-6	Mercury	0.20	0.025	0.0077	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-12 | Lab Sample ID: 580-28720-6

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 11:05

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 50.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	30000	1900	110	mg/Kg		B	100	6010B
7440-09-7	Potassium	300	310	30	mg/Kg	J		1	6010B
7440-70-2	Calcium	210	100	5.8	mg/Kg		B	1	6010B
7439-95-4	Magnesium	2000	100	6.0	mg/Kg			1	6010B
7429-90-5	Aluminum	14000	56	5.6	mg/Kg			10	6020
7440-36-0	Antimony	2.4	0.37	0.078	mg/Kg			10	6020
7440-38-2	Arsenic	430	0.93	0.34	mg/Kg			10	6020
7440-41-7	Beryllium	0.096	0.37	0.041	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.16	0.37	0.015	mg/Kg	J		10	6020
7440-47-3	Chromium	9.3	0.37	0.21	mg/Kg			10	6020
7440-50-8	Copper	33	0.37	0.18	mg/Kg			10	6020
7439-92-1	Lead	25	0.37	0.024	mg/Kg			10	6020
7439-96-5	Manganese	78	0.93	0.32	mg/Kg			10	6020
7440-02-0	Nickel	5.0	0.37	0.38	mg/Kg		B	10	6020
7782-49-2	Selenium	1.3	1.3	0.38	mg/Kg			10	6020
7440-22-4	Silver	0.43	0.37	0.022	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.93	0.24	mg/Kg			10	6020
7440-66-6	Zinc	9.4	1.3	2.1	mg/Kg			10	6020
7440-23-5	Sodium	ND	190	73	mg/Kg			10	6020
7440-39-3	Barium	14	0.37	0.056	mg/Kg			10	6020
7440-62-2	Vanadium	57	1.3	0.88	mg/Kg			10	6020
7440-48-4	Cobalt	2.9	0.37	0.036	mg/Kg		B	10	6020
7439-97-6	Mercury	0.14	0.029	0.0091	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-18 | Lab Sample ID: 580-28720-7

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 10:30

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 64.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	14000	15	0.92	mg/Kg		B	1	6010B
7440-09-7	Potassium	130	250	24	mg/Kg	J		1	6010B
7440-70-2	Calcium	160	83	4.7	mg/Kg		B	1	6010B
7439-95-4	Magnesium	940	83	4.8	mg/Kg			1	6010B
7429-90-5	Aluminum	9800	45	4.5	mg/Kg			10	6020
7440-36-0	Antimony	1.2	0.30	0.063	mg/Kg			10	6020
7440-38-2	Arsenic	27	0.75	0.27	mg/Kg			10	6020
7440-41-7	Beryllium	0.14	0.30	0.033	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.22	0.30	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	7.3	0.30	0.17	mg/Kg			10	6020
7440-50-8	Copper	33	0.30	0.15	mg/Kg			10	6020
7439-92-1	Lead	66	0.30	0.020	mg/Kg			10	6020
7439-96-5	Manganese	94	0.75	0.26	mg/Kg			10	6020
7440-02-0	Nickel	4.3	0.30	0.31	mg/Kg		B	10	6020
7782-49-2	Selenium	0.72	1.1	0.30	mg/Kg	J		10	6020
7440-22-4	Silver	0.41	0.30	0.018	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.75	0.20	mg/Kg			10	6020
7440-66-6	Zinc	11	1.1	1.7	mg/Kg			10	6020
7440-23-5	Sodium	61	150	59	mg/Kg	J		10	6020
7440-39-3	Barium	12	0.30	0.045	mg/Kg			10	6020
7440-62-2	Vanadium	29	1.1	0.71	mg/Kg			10	6020
7440-48-4	Cobalt	3.1	0.30	0.029	mg/Kg		B	10	6020
7439-97-6	Mercury	0.26	0.025	0.0079	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-17 | Lab Sample ID: 580-28720-8

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 11:00

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 59.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	29000	1500	95	mg/Kg		B	100	6010B
7440-09-7	Potassium	380	260	25	mg/Kg			1	6010B
7440-70-2	Calcium	270	85	4.8	mg/Kg		B	1	6010B
7439-95-4	Magnesium	3100	85	5.0	mg/Kg			1	6010B
7429-90-5	Aluminum	35000	46	4.6	mg/Kg			10	6020
7440-36-0	Antimony	2.5	0.31	0.065	mg/Kg			10	6020
7440-38-2	Arsenic	110	0.77	0.28	mg/Kg			10	6020
7440-41-7	Beryllium	0.27	0.31	0.034	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.28	0.31	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	19	0.31	0.18	mg/Kg			10	6020
7440-50-8	Copper	44	0.31	0.15	mg/Kg			10	6020
7439-92-1	Lead	27	0.31	0.020	mg/Kg			10	6020
7439-96-5	Manganese	160	0.77	0.26	mg/Kg			10	6020
7440-02-0	Nickel	9.7	0.31	0.31	mg/Kg		B	10	6020
7782-49-2	Selenium	1.0	1.1	0.31	mg/Kg	J		10	6020
7440-22-4	Silver	0.74	0.31	0.019	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.77	0.20	mg/Kg			10	6020
7440-66-6	Zinc	31	1.1	1.7	mg/Kg			10	6020
7440-23-5	Sodium	ND	150	61	mg/Kg			10	6020
7440-39-3	Barium	30	0.31	0.046	mg/Kg			10	6020
7440-62-2	Vanadium	57	1.1	0.73	mg/Kg			10	6020
7440-48-4	Cobalt	4.4	0.31	0.029	mg/Kg		B	10	6020
7439-97-6	Mercury	0.26	0.024	0.0076	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-13 | Lab Sample ID: 580-28720-9

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 10:40

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 37.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	12000	26	1.6	mg/Kg		B	1	6010B
7440-09-7	Potassium	70	430	42	mg/Kg	J		1	6010B
7440-70-2	Calcium	280	140	8.1	mg/Kg		B	1	6010B
7439-95-4	Magnesium	60	140	8.4	mg/Kg	J		1	6010B
7429-90-5	Aluminum	18000	78	7.8	mg/Kg			10	6020
7440-36-0	Antimony	0.41	0.52	0.11	mg/Kg	J		10	6020
7440-38-2	Arsenic	8.4	1.3	0.47	mg/Kg			10	6020
7440-41-7	Beryllium	0.19	0.52	0.057	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.26	0.52	0.021	mg/Kg	J		10	6020
7440-47-3	Chromium	5.2	0.52	0.29	mg/Kg			10	6020
7440-50-8	Copper	20	0.52	0.26	mg/Kg			10	6020
7439-92-1	Lead	7.5	0.52	0.034	mg/Kg			10	6020
7439-96-5	Manganese	19	1.3	0.44	mg/Kg			10	6020
7440-02-0	Nickel	3.6	0.52	0.53	mg/Kg		B	10	6020
7782-49-2	Selenium	1.2	1.8	0.53	mg/Kg	J		10	6020
7440-22-4	Silver	1.0	0.52	0.031	mg/Kg			10	6020
7440-28-0	Thallium	ND	1.3	0.34	mg/Kg			10	6020
7440-66-6	Zinc	ND	1.8	2.9	mg/Kg			10	6020
7440-23-5	Sodium	ND	260	100	mg/Kg			10	6020
7440-39-3	Barium	9.6	0.52	0.078	mg/Kg			10	6020
7440-62-2	Vanadium	14	1.8	1.2	mg/Kg			10	6020
7440-48-4	Cobalt	1.0	0.52	0.050	mg/Kg		B	10	6020
7439-97-6	Mercury	0.20	0.042	0.013	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-16 | Lab Sample ID: 580-28720-10

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 11:45

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 72.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	19000	1300	81	mg/Kg		B	100	6010B
7440-09-7	Potassium	1900	220	21	mg/Kg			1	6010B
7440-70-2	Calcium	250	73	4.1	mg/Kg		B	1	6010B
7439-95-4	Magnesium	6200	73	4.2	mg/Kg			1	6010B
7429-90-5	Aluminum	13000	40	4.0	mg/Kg			10	6020
7440-36-0	Antimony	0.24	0.26	0.055	mg/Kg	J		10	6020
7440-38-2	Arsenic	6.6	0.66	0.24	mg/Kg			10	6020
7440-41-7	Beryllium	0.059	0.26	0.029	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.16	0.26	0.011	mg/Kg	J		10	6020
7440-47-3	Chromium	10	0.26	0.15	mg/Kg			10	6020
7440-50-8	Copper	13	0.26	0.13	mg/Kg			10	6020
7439-92-1	Lead	13	0.26	0.017	mg/Kg			10	6020
7439-96-5	Manganese	240	0.66	0.22	mg/Kg			10	6020
7440-02-0	Nickel	8.8	0.26	0.27	mg/Kg		B	10	6020
7782-49-2	Selenium	0.37	0.92	0.27	mg/Kg	J		10	6020
7440-22-4	Silver	0.51	0.26	0.016	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.66	0.17	mg/Kg			10	6020
7440-66-6	Zinc	32	0.92	1.5	mg/Kg			10	6020
7440-23-5	Sodium	60	130	52	mg/Kg	J		10	6020
7440-39-3	Barium	40	0.26	0.040	mg/Kg			10	6020
7440-62-2	Vanadium	34	0.92	0.62	mg/Kg			10	6020
7440-48-4	Cobalt	2.0	0.26	0.025	mg/Kg		B	10	6020
7439-97-6	Mercury	0.094	0.020	0.0064	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-10 | Lab Sample ID: 580-28720-11

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 09:45

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 61.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	17000	1600	99	mg/Kg		B	100	6010B
7440-09-7	Potassium	300	270	26	mg/Kg			1	6010B
7440-70-2	Calcium	540	89	5.0	mg/Kg		B	1	6010B
7439-95-4	Magnesium	880	89	5.2	mg/Kg			1	6010B
7429-90-5	Aluminum	9400	49	4.9	mg/Kg			10	6020
7440-36-0	Antimony	1.6	0.32	0.068	mg/Kg			10	6020
7440-38-2	Arsenic	69	0.81	0.29	mg/Kg			10	6020
7440-41-7	Beryllium	0.081	0.32	0.036	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.14	0.32	0.013	mg/Kg	J		10	6020
7440-47-3	Chromium	8.6	0.32	0.18	mg/Kg			10	6020
7440-50-8	Copper	14	0.32	0.16	mg/Kg			10	6020
7439-92-1	Lead	20	0.32	0.021	mg/Kg			10	6020
7439-96-5	Manganese	92	0.81	0.28	mg/Kg			10	6020
7440-02-0	Nickel	5.0	0.32	0.33	mg/Kg		B	10	6020
7782-49-2	Selenium	0.44	1.1	0.33	mg/Kg	J		10	6020
7440-22-4	Silver	0.39	0.32	0.019	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.81	0.21	mg/Kg			10	6020
7440-66-6	Zinc	23	1.1	1.8	mg/Kg			10	6020
7440-23-5	Sodium	ND	160	64	mg/Kg			10	6020
7440-39-3	Barium	20	0.32	0.049	mg/Kg			10	6020
7440-62-2	Vanadium	43	1.1	0.77	mg/Kg			10	6020
7440-48-4	Cobalt	2.2	0.32	0.031	mg/Kg		B	10	6020
7439-97-6	Mercury	0.21	0.026	0.0083	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-1 | Lab Sample ID: 580-28720-12

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/13/2011 16:30

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 84.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	28000	1200	71	mg/Kg		B	100	6010B
7440-09-7	Potassium	340	190	19	mg/Kg			1	6010B
7440-70-2	Calcium	690	64	3.6	mg/Kg		B	1	6010B
7439-95-4	Magnesium	4900	64	3.7	mg/Kg			1	6010B
7429-90-5	Aluminum	11000	35	3.5	mg/Kg			10	6020
7440-36-0	Antimony	46	0.23	0.049	mg/Kg			10	6020
7440-38-2	Arsenic	430	0.58	0.21	mg/Kg			10	6020
7440-41-7	Beryllium	0.11	0.23	0.026	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.23	0.23	0.0093	mg/Kg			10	6020
7440-47-3	Chromium	21	0.23	0.13	mg/Kg			10	6020
7440-50-8	Copper	17	0.23	0.11	mg/Kg			10	6020
7439-92-1	Lead	210	0.23	0.015	mg/Kg			10	6020
7439-96-5	Manganese	950	0.58	0.20	mg/Kg			10	6020
7440-02-0	Nickel	13	0.23	0.24	mg/Kg		B	10	6020
7782-49-2	Selenium	ND	0.81	0.23	mg/Kg			10	6020
7440-22-4	Silver	3.5	0.23	0.014	mg/Kg			10	6020
7440-28-0	Thallium	0.19	0.58	0.15	mg/Kg	J		10	6020
7440-66-6	Zinc	79	0.81	1.3	mg/Kg			10	6020
7440-23-5	Sodium	80	120	46	mg/Kg	J		10	6020
7440-39-3	Barium	15	0.23	0.035	mg/Kg			10	6020
7440-62-2	Vanadium	38	0.81	0.55	mg/Kg			10	6020
7440-48-4	Cobalt	12	0.23	0.022	mg/Kg		B	10	6020
7439-97-6	Mercury	0.83	0.19	0.060	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-4 | Lab Sample ID: 580-28720-13

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 14:05

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 61.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	43000	1500	94	mg/Kg		B	100	6010B
7440-09-7	Potassium	290	250	25	mg/Kg			1	6010B
7440-70-2	Calcium	150	85	4.8	mg/Kg		B	1	6010B
7439-95-4	Magnesium	2500	85	4.9	mg/Kg			1	6010B
7429-90-5	Aluminum	29000	46	4.6	mg/Kg			10	6020
7440-36-0	Antimony	3.0	0.31	0.065	mg/Kg			10	6020
7440-38-2	Arsenic	69	0.77	0.28	mg/Kg			10	6020
7440-41-7	Beryllium	0.27	0.31	0.034	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.065	0.31	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	17	0.31	0.17	mg/Kg			10	6020
7440-50-8	Copper	19	0.31	0.15	mg/Kg			10	6020
7439-92-1	Lead	21	0.31	0.020	mg/Kg			10	6020
7439-96-5	Manganese	130	0.77	0.26	mg/Kg			10	6020
7440-02-0	Nickel	8.2	0.31	0.31	mg/Kg		B	10	6020
7782-49-2	Selenium	0.51	1.1	0.31	mg/Kg	J		10	6020
7440-22-4	Silver	0.51	0.31	0.018	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.77	0.20	mg/Kg			10	6020
7440-66-6	Zinc	ND	1.1	1.7	mg/Kg			10	6020
7440-23-5	Sodium	ND	150	60	mg/Kg			10	6020
7440-39-3	Barium	26	0.31	0.046	mg/Kg			10	6020
7440-62-2	Vanadium	110	1.1	0.73	mg/Kg			10	6020
7440-48-4	Cobalt	3.9	0.31	0.029	mg/Kg		B	10	6020
7439-97-6	Mercury	0.12	0.021	0.0066	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-11 | Lab Sample ID: 580-28720-14

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/15/2011 15:50

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 92.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	22000	1000	63	mg/Kg		B	100	6010B
7440-09-7	Potassium	360	170	17	mg/Kg			1	6010B
7440-70-2	Calcium	1600	57	3.2	mg/Kg		B	1	6010B
7439-95-4	Magnesium	4000	57	3.3	mg/Kg			1	6010B
7429-90-5	Aluminum	9400	31	3.1	mg/Kg			10	6020
7440-36-0	Antimony	43	0.21	0.044	mg/Kg			10	6020
7440-38-2	Arsenic	400	0.52	0.19	mg/Kg			10	6020
7440-41-7	Beryllium	0.20	0.21	0.023	mg/Kg	J		10	6020
7440-43-9	Cadmium	1.1	0.21	0.0083	mg/Kg			10	6020
7440-47-3	Chromium	15	0.21	0.12	mg/Kg			10	6020
7440-50-8	Copper	28	0.21	0.10	mg/Kg			10	6020
7439-92-1	Lead	170	0.21	0.013	mg/Kg			10	6020
7439-96-5	Manganese	1200	0.52	0.18	mg/Kg			10	6020
7440-02-0	Nickel	11	0.21	0.21	mg/Kg		B	10	6020
7782-49-2	Selenium	ND	0.73	0.21	mg/Kg			10	6020
7440-22-4	Silver	1.4	0.21	0.012	mg/Kg			10	6020
7440-28-0	Thallium	0.20	0.52	0.13	mg/Kg	J		10	6020
7440-66-6	Zinc	210	0.73	1.2	mg/Kg			10	6020
7440-23-5	Sodium	85	100	41	mg/Kg	J		10	6020
7440-39-3	Barium	28	0.21	0.031	mg/Kg			10	6020
7440-62-2	Vanadium	29	0.73	0.49	mg/Kg			10	6020
7440-48-4	Cobalt	11	0.21	0.020	mg/Kg		B	10	6020
7439-97-6	Mercury	0.56	0.016	0.0051	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-5 | Lab Sample ID: 580-28720-15

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 13:35

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 66.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	4900	14	0.85	mg/Kg		B	1	6010B
7440-09-7	Potassium	39	230	22	mg/Kg	J		1	6010B
7440-70-2	Calcium	140	76	4.3	mg/Kg		B	1	6010B
7439-95-4	Magnesium	87	76	4.4	mg/Kg			1	6010B
7429-90-5	Aluminum	6100	42	4.2	mg/Kg			10	6020
7440-36-0	Antimony	1.6	0.28	0.058	mg/Kg			10	6020
7440-38-2	Arsenic	14	0.69	0.25	mg/Kg			10	6020
7440-41-7	Beryllium	0.066	0.28	0.030	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.13	0.28	0.011	mg/Kg	J		10	6020
7440-47-3	Chromium	3.1	0.28	0.16	mg/Kg			10	6020
7440-50-8	Copper	7.5	0.28	0.14	mg/Kg			10	6020
7439-92-1	Lead	7.6	0.28	0.018	mg/Kg			10	6020
7439-96-5	Manganese	54	0.69	0.24	mg/Kg			10	6020
7440-02-0	Nickel	1.2	0.28	0.28	mg/Kg		B	10	6020
7782-49-2	Selenium	ND	0.97	0.28	mg/Kg			10	6020
7440-22-4	Silver	0.38	0.28	0.017	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.69	0.18	mg/Kg			10	6020
7440-66-6	Zinc	11	0.97	1.6	mg/Kg			10	6020
7440-23-5	Sodium	85	140	54	mg/Kg	J		10	6020
7440-39-3	Barium	7.1	0.28	0.042	mg/Kg			10	6020
7440-62-2	Vanadium	20	0.97	0.66	mg/Kg			10	6020
7440-48-4	Cobalt	1.4	0.28	0.026	mg/Kg		B	10	6020
7439-97-6	Mercury	0.052	0.022	0.0071	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-3 | Lab Sample ID: 580-28720-16

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/13/2011 13:45

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 81.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	24000	1200	75	mg/Kg		B	100	6010B
7440-09-7	Potassium	320	200	20	mg/Kg			1	6010B
7440-70-2	Calcium	390	68	3.8	mg/Kg		B	1	6010B
7439-95-4	Magnesium	4100	68	3.9	mg/Kg			1	6010B
7429-90-5	Aluminum	18000	37	3.7	mg/Kg			10	6020
7440-36-0	Antimony	31	0.25	0.052	mg/Kg			10	6020
7440-38-2	Arsenic	100	0.61	0.22	mg/Kg			10	6020
7440-41-7	Beryllium	0.22	0.25	0.027	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.22	0.25	0.0098	mg/Kg	J		10	6020
7440-47-3	Chromium	16	0.25	0.14	mg/Kg			10	6020
7440-50-8	Copper	16	0.25	0.12	mg/Kg			10	6020
7439-92-1	Lead	59	0.25	0.016	mg/Kg			10	6020
7439-96-5	Manganese	1300	0.61	0.21	mg/Kg			10	6020
7440-02-0	Nickel	8.9	0.25	0.25	mg/Kg		B	10	6020
7782-49-2	Selenium	0.48	0.86	0.25	mg/Kg	J		10	6020
7440-22-4	Silver	0.45	0.25	0.015	mg/Kg			10	6020
7440-28-0	Thallium	0.20	0.61	0.16	mg/Kg	J		10	6020
7440-66-6	Zinc	68	0.86	1.4	mg/Kg			10	6020
7440-23-5	Sodium	62	120	48	mg/Kg	J		10	6020
7440-39-3	Barium	30	0.25	0.037	mg/Kg			10	6020
7440-62-2	Vanadium	43	0.86	0.58	mg/Kg			10	6020
7440-48-4	Cobalt	10	0.25	0.023	mg/Kg		B	10	6020
7439-97-6	Mercury	0.47	0.018	0.0058	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-6 | Lab Sample ID: 580-28720-17

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 13:00

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 52.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	13000	19	1.1	mg/Kg		B	1	6010B
7440-09-7	Potassium	190	310	30	mg/Kg	J		1	6010B
7440-70-2	Calcium	270	100	5.8	mg/Kg		B	1	6010B
7439-95-4	Magnesium	750	100	6.0	mg/Kg			1	6010B
7429-90-5	Aluminum	9300	56	5.6	mg/Kg			10	6020
7440-36-0	Antimony	1.2	0.37	0.078	mg/Kg			10	6020
7440-38-2	Arsenic	9.6	0.93	0.34	mg/Kg			10	6020
7440-41-7	Beryllium	0.15	0.37	0.041	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.32	0.37	0.015	mg/Kg	J		10	6020
7440-47-3	Chromium	5.1	0.37	0.21	mg/Kg			10	6020
7440-50-8	Copper	13	0.37	0.18	mg/Kg			10	6020
7439-92-1	Lead	7.4	0.37	0.024	mg/Kg			10	6020
7439-96-5	Manganese	66	0.93	0.32	mg/Kg			10	6020
7440-02-0	Nickel	3.2	0.37	0.38	mg/Kg		B	10	6020
7782-49-2	Selenium	0.38	1.3	0.38	mg/Kg	J		10	6020
7440-22-4	Silver	0.42	0.37	0.022	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.93	0.24	mg/Kg			10	6020
7440-66-6	Zinc	8.3	1.3	2.1	mg/Kg			10	6020
7440-23-5	Sodium	88	190	73	mg/Kg	J		10	6020
7440-39-3	Barium	11	0.37	0.056	mg/Kg			10	6020
7440-62-2	Vanadium	24	1.3	0.88	mg/Kg			10	6020
7440-48-4	Cobalt	2.0	0.37	0.035	mg/Kg		B	10	6020
7439-97-6	Mercury	0.10	0.030	0.0095	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-2 | Lab Sample ID: 580-28720-18

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/15/2011 14:50

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 90.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	28000	1100	65	mg/Kg			100	6010B
7440-09-7	Potassium	700	180	17	mg/Kg			1	6010B
7440-70-2	Calcium	1900	59	3.3	mg/Kg			1	6010B
7439-95-4	Magnesium	6500	59	3.4	mg/Kg			1	6010B
7429-90-5	Aluminum	14000	32	3.2	mg/Kg			10	6020
7440-36-0	Antimony	20	0.21	0.045	mg/Kg			10	6020
7440-38-2	Arsenic	430	0.54	0.19	mg/Kg			10	6020
7440-41-7	Beryllium	0.31	0.21	0.024	mg/Kg			10	6020
7440-43-9	Cadmium	1.0	0.21	0.0086	mg/Kg			10	6020
7440-47-3	Chromium	26	0.21	0.12	mg/Kg			10	6020
7440-50-8	Copper	27	0.21	0.11	mg/Kg			10	6020
7439-92-1	Lead	170	0.21	0.014	mg/Kg			10	6020
7439-96-5	Manganese	1400	0.54	0.18	mg/Kg			10	6020
7440-02-0	Nickel	20	0.21	0.22	mg/Kg			10	6020
7782-49-2	Selenium	0.56	0.75	0.22	mg/Kg	J		10	6020
7440-22-4	Silver	1.4	0.21	0.013	mg/Kg			10	6020
7440-28-0	Thallium	0.31	0.54	0.14	mg/Kg	J		10	6020
7440-66-6	Zinc	210	0.75	1.2	mg/Kg			10	6020
7440-23-5	Sodium	250	110	42	mg/Kg			10	6020
7440-39-3	Barium	43	0.21	0.032	mg/Kg			10	6020
7440-62-2	Vanadium	48	0.75	0.51	mg/Kg			10	6020
7440-48-4	Cobalt	13	0.21	0.020	mg/Kg			10	6020
7439-97-6	Mercury	0.81	0.017	0.0054	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-22 | Lab Sample ID: 580-28720-19

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 14:10

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 64.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	32000	1500	94	mg/Kg			100	6010B
7440-09-7	Potassium	210	250	25	mg/Kg	J		1	6010B
7440-70-2	Calcium	200	84	4.8	mg/Kg			1	6010B
7439-95-4	Magnesium	970	84	4.9	mg/Kg			1	6010B
7429-90-5	Aluminum	18000	46	4.6	mg/Kg			10	6020
7440-36-0	Antimony	0.47	0.31	0.064	mg/Kg			10	6020
7440-38-2	Arsenic	20	0.77	0.28	mg/Kg			10	6020
7440-41-7	Beryllium	0.099	0.31	0.034	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.25	0.31	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	26	0.31	0.17	mg/Kg			10	6020
7440-50-8	Copper	14	0.31	0.15	mg/Kg			10	6020
7439-92-1	Lead	14	0.31	0.020	mg/Kg			10	6020
7439-96-5	Manganese	86	0.77	0.26	mg/Kg			10	6020
7440-02-0	Nickel	9.5	0.31	0.31	mg/Kg			10	6020
7782-49-2	Selenium	0.72	1.1	0.31	mg/Kg	J		10	6020
7440-22-4	Silver	0.52	0.31	0.018	mg/Kg			10	6020
7440-28-0	Thallium	0.31	0.77	0.20	mg/Kg	J		10	6020
7440-66-6	Zinc	24	1.1	1.7	mg/Kg			10	6020
7440-23-5	Sodium	150	150	60	mg/Kg			10	6020
7440-39-3	Barium	25	0.31	0.046	mg/Kg			10	6020
7440-62-2	Vanadium	59	1.1	0.73	mg/Kg			10	6020
7440-48-4	Cobalt	2.4	0.31	0.029	mg/Kg			10	6020
7439-97-6	Mercury	0.24	0.023	0.0072	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-3 | Lab Sample ID: 580-28720-20

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 16:00

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 63.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	20000	1500	94	mg/Kg			100	6010B
7440-09-7	Potassium	400	250	25	mg/Kg			1	6010B
7440-70-2	Calcium	330	85	4.8	mg/Kg			1	6010B
7439-95-4	Magnesium	2300	85	4.9	mg/Kg			1	6010B
7429-90-5	Aluminum	15000	46	4.6	mg/Kg			10	6020
7440-36-0	Antimony	0.48	0.31	0.065	mg/Kg			10	6020
7440-38-2	Arsenic	17	0.77	0.28	mg/Kg			10	6020
7440-41-7	Beryllium	0.16	0.31	0.034	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.30	0.31	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	27	0.31	0.17	mg/Kg			10	6020
7440-50-8	Copper	19	0.31	0.15	mg/Kg			10	6020
7439-92-1	Lead	27	0.31	0.020	mg/Kg			10	6020
7439-96-5	Manganese	210	0.77	0.26	mg/Kg			10	6020
7440-02-0	Nickel	17	0.31	0.31	mg/Kg			10	6020
7782-49-2	Selenium	1.0	1.1	0.31	mg/Kg	J		10	6020
7440-22-4	Silver	0.79	0.31	0.018	mg/Kg			10	6020
7440-28-0	Thallium	0.22	0.77	0.20	mg/Kg	J		10	6020
7440-66-6	Zinc	66	1.1	1.7	mg/Kg			10	6020
7440-23-5	Sodium	83	150	60	mg/Kg	J		10	6020
7440-39-3	Barium	37	0.31	0.046	mg/Kg			10	6020
7440-62-2	Vanadium	54	1.1	0.73	mg/Kg			10	6020
7440-48-4	Cobalt	4.0	0.31	0.029	mg/Kg			10	6020
7439-97-6	Mercury	0.13	0.021	0.0067	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-19 | Lab Sample ID: 580-28720-21

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 10:37

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 59.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	56000	1500	92	mg/Kg			100	6010B
7440-09-7	Potassium	680	250	24	mg/Kg			1	6010B
7440-70-2	Calcium	300	83	4.7	mg/Kg			1	6010B
7439-95-4	Magnesium	8100	83	4.8	mg/Kg			1	6010B
7429-90-5	Aluminum	38000	45	4.5	mg/Kg			10	6020
7440-36-0	Antimony	0.87	0.30	0.064	mg/Kg			10	6020
7440-38-2	Arsenic	62	0.76	0.27	mg/Kg			10	6020
7440-41-7	Beryllium	0.93	0.30	0.033	mg/Kg			10	6020
7440-43-9	Cadmium	0.20	0.30	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	81	0.30	0.17	mg/Kg			10	6020
7440-50-8	Copper	79	0.30	0.15	mg/Kg			10	6020
7439-92-1	Lead	22	0.30	0.020	mg/Kg			10	6020
7439-96-5	Manganese	670	0.76	0.26	mg/Kg			10	6020
7440-02-0	Nickel	110	0.30	0.31	mg/Kg			10	6020
7782-49-2	Selenium	1.6	1.1	0.31	mg/Kg			10	6020
7440-22-4	Silver	0.29	0.30	0.018	mg/Kg	J		10	6020
7440-28-0	Thallium	0.26	0.76	0.20	mg/Kg	J		10	6020
7440-66-6	Zinc	140	1.1	1.7	mg/Kg			10	6020
7440-23-5	Sodium	110	150	59	mg/Kg	J		10	6020
7440-39-3	Barium	120	0.30	0.045	mg/Kg			10	6020
7440-62-2	Vanadium	86	1.1	0.72	mg/Kg			10	6020
7440-48-4	Cobalt	24	0.30	0.029	mg/Kg			10	6020
7439-97-6	Mercury	0.16	0.022	0.0070	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-2 | Lab Sample ID: 580-28720-22

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 17:00

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 62.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	20000	1500	90	mg/Kg			100	6010B
7440-09-7	Potassium	150	240	24	mg/Kg	J		1	6010B
7440-70-2	Calcium	240	81	4.6	mg/Kg			1	6010B
7439-95-4	Magnesium	1100	81	4.7	mg/Kg			1	6010B
7429-90-5	Aluminum	17000	44	4.4	mg/Kg			10	6020
7440-36-0	Antimony	0.17	0.29	0.062	mg/Kg	J		10	6020
7440-38-2	Arsenic	9.3	0.74	0.27	mg/Kg			10	6020
7440-41-7	Beryllium	0.15	0.29	0.032	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.13	0.29	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	19	0.29	0.17	mg/Kg			10	6020
7440-50-8	Copper	11	0.29	0.14	mg/Kg			10	6020
7439-92-1	Lead	5.5	0.29	0.019	mg/Kg			10	6020
7439-96-5	Manganese	83	0.74	0.25	mg/Kg			10	6020
7440-02-0	Nickel	9.6	0.29	0.30	mg/Kg			10	6020
7782-49-2	Selenium	0.73	1.0	0.30	mg/Kg	J		10	6020
7440-22-4	Silver	0.29	0.29	0.018	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.74	0.19	mg/Kg			10	6020
7440-66-6	Zinc	20	1.0	1.7	mg/Kg			10	6020
7440-23-5	Sodium	98	150	58	mg/Kg	J		10	6020
7440-39-3	Barium	27	0.29	0.044	mg/Kg			10	6020
7440-62-2	Vanadium	48	1.0	0.70	mg/Kg			10	6020
7440-48-4	Cobalt	2.3	0.29	0.028	mg/Kg			10	6020
7439-97-6	Mercury	0.21	0.021	0.0067	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-16 | Lab Sample ID: 580-28720-23

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 15:40

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 65.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	28000	1400	86	mg/Kg			100	6010B
7440-09-7	Potassium	460	230	22	mg/Kg			1	6010B
7440-70-2	Calcium	830	77	4.3	mg/Kg			1	6010B
7439-95-4	Magnesium	5700	77	4.5	mg/Kg			1	6010B
7429-90-5	Aluminum	27000	42	4.2	mg/Kg			10	6020
7440-36-0	Antimony	0.36	0.28	0.059	mg/Kg			10	6020
7440-38-2	Arsenic	18	0.70	0.25	mg/Kg			10	6020
7440-41-7	Beryllium	0.36	0.28	0.031	mg/Kg			10	6020
7440-43-9	Cadmium	0.32	0.28	0.011	mg/Kg			10	6020
7440-47-3	Chromium	55	0.28	0.16	mg/Kg			10	6020
7440-50-8	Copper	36	0.28	0.14	mg/Kg			10	6020
7439-92-1	Lead	12	0.28	0.018	mg/Kg			10	6020
7439-96-5	Manganese	410	0.70	0.24	mg/Kg			10	6020
7440-02-0	Nickel	41	0.28	0.28	mg/Kg			10	6020
7782-49-2	Selenium	0.95	0.98	0.28	mg/Kg	J		10	6020
7440-22-4	Silver	0.34	0.28	0.017	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.70	0.18	mg/Kg			10	6020
7440-66-6	Zinc	66	0.98	1.6	mg/Kg			10	6020
7440-23-5	Sodium	110	140	55	mg/Kg	J		10	6020
7440-39-3	Barium	76	0.28	0.042	mg/Kg			10	6020
7440-62-2	Vanadium	61	0.98	0.66	mg/Kg			10	6020
7440-48-4	Cobalt	9.9	0.28	0.027	mg/Kg			10	6020
7439-97-6	Mercury	0.14	0.023	0.0072	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-7 | Lab Sample ID: 580-28720-24

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 16:20

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 68.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	6400	14	0.85	mg/Kg			1	6010B
7440-09-7	Potassium	58	230	22	mg/Kg	J		1	6010B
7440-70-2	Calcium	150	76	4.3	mg/Kg			1	6010B
7439-95-4	Magnesium	180	76	4.4	mg/Kg			1	6010B
7429-90-5	Aluminum	4500	42	4.2	mg/Kg			10	6020
7440-36-0	Antimony	0.11	0.28	0.058	mg/Kg	J		10	6020
7440-38-2	Arsenic	3.7	0.69	0.25	mg/Kg			10	6020
7440-41-7	Beryllium	0.066	0.28	0.030	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.085	0.28	0.011	mg/Kg	J		10	6020
7440-47-3	Chromium	5.2	0.28	0.16	mg/Kg			10	6020
7440-50-8	Copper	6.9	0.28	0.14	mg/Kg			10	6020
7439-92-1	Lead	5.1	0.28	0.018	mg/Kg			10	6020
7439-96-5	Manganese	30	0.69	0.24	mg/Kg			10	6020
7440-02-0	Nickel	3.6	0.28	0.28	mg/Kg			10	6020
7782-49-2	Selenium	0.30	0.97	0.28	mg/Kg	J		10	6020
7440-22-4	Silver	0.19	0.28	0.017	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.69	0.18	mg/Kg			10	6020
7440-66-6	Zinc	13	0.97	1.6	mg/Kg			10	6020
7440-23-5	Sodium	150	140	54	mg/Kg			10	6020
7440-39-3	Barium	14	0.28	0.042	mg/Kg			10	6020
7440-62-2	Vanadium	22	0.97	0.66	mg/Kg			10	6020
7440-48-4	Cobalt	1.3	0.28	0.026	mg/Kg			10	6020
7439-97-6	Mercury	0.061	0.019	0.0061	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-21 | Lab Sample ID: 580-28720-25

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 13:00

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 71.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	26000	1200	76	mg/Kg			100	6010B
7440-09-7	Potassium	400	200	20	mg/Kg			1	6010B
7440-70-2	Calcium	540	68	3.8	mg/Kg			1	6010B
7439-95-4	Magnesium	2700	68	4.0	mg/Kg			1	6010B
7429-90-5	Aluminum	24000	37	3.7	mg/Kg			10	6020
7440-36-0	Antimony	0.44	0.25	0.052	mg/Kg			10	6020
7440-38-2	Arsenic	28	0.62	0.22	mg/Kg			10	6020
7440-41-7	Beryllium	0.44	0.25	0.027	mg/Kg			10	6020
7440-43-9	Cadmium	0.21	0.25	0.0099	mg/Kg	J		10	6020
7440-47-3	Chromium	32	0.25	0.14	mg/Kg			10	6020
7440-50-8	Copper	19	0.25	0.12	mg/Kg			10	6020
7439-92-1	Lead	26	0.25	0.016	mg/Kg			10	6020
7439-96-5	Manganese	150	0.62	0.21	mg/Kg			10	6020
7440-02-0	Nickel	21	0.25	0.25	mg/Kg			10	6020
7782-49-2	Selenium	1.1	0.87	0.25	mg/Kg			10	6020
7440-22-4	Silver	0.19	0.25	0.015	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.62	0.16	mg/Kg			10	6020
7440-66-6	Zinc	46	0.87	1.4	mg/Kg			10	6020
7440-23-5	Sodium	110	120	49	mg/Kg	J		10	6020
7440-39-3	Barium	41	0.25	0.037	mg/Kg			10	6020
7440-62-2	Vanadium	64	0.87	0.59	mg/Kg			10	6020
7440-48-4	Cobalt	5.4	0.25	0.024	mg/Kg			10	6020
7439-97-6	Mercury	0.23	0.021	0.0066	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-23 | Lab Sample ID: 580-28720-26

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 14:45

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 59.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	10000	16	0.97	mg/Kg			1	6010B
7440-09-7	Potassium	130	260	25	mg/Kg	J		1	6010B
7440-70-2	Calcium	130	87	4.9	mg/Kg			1	6010B
7439-95-4	Magnesium	260	87	5.1	mg/Kg			1	6010B
7429-90-5	Aluminum	4400	48	4.8	mg/Kg			10	6020
7440-36-0	Antimony	0.22	0.32	0.067	mg/Kg	J		10	6020
7440-38-2	Arsenic	28	0.79	0.29	mg/Kg			10	6020
7440-41-7	Beryllium	0.055	0.32	0.035	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.084	0.32	0.013	mg/Kg	J		10	6020
7440-47-3	Chromium	29	0.32	0.18	mg/Kg			10	6020
7440-50-8	Copper	15	0.32	0.16	mg/Kg			10	6020
7439-92-1	Lead	3.6	0.32	0.021	mg/Kg			10	6020
7439-96-5	Manganese	43	0.79	0.27	mg/Kg			10	6020
7440-02-0	Nickel	9.4	0.32	0.32	mg/Kg			10	6020
7782-49-2	Selenium	ND	1.1	0.32	mg/Kg			10	6020
7440-22-4	Silver	0.11	0.32	0.019	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.79	0.21	mg/Kg			10	6020
7440-66-6	Zinc	16	1.1	1.8	mg/Kg			10	6020
7440-23-5	Sodium	110	160	62	mg/Kg	J		10	6020
7440-39-3	Barium	16	0.32	0.048	mg/Kg			10	6020
7440-62-2	Vanadium	65	1.1	0.75	mg/Kg			10	6020
7440-48-4	Cobalt	2.0	0.32	0.030	mg/Kg			10	6020
7439-97-6	Mercury	0.11	0.026	0.0082	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-18 | Lab Sample ID: 580-28720-27

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 11:16

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 57.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	26000	1700	100	mg/Kg			100	6010B
7440-09-7	Potassium	410	280	27	mg/Kg			1	6010B
7440-70-2	Calcium	530	93	5.2	mg/Kg			1	6010B
7439-95-4	Magnesium	3600	93	5.4	mg/Kg			1	6010B
7429-90-5	Aluminum	28000	51	5.1	mg/Kg			10	6020
7440-36-0	Antimony	0.55	0.34	0.071	mg/Kg			10	6020
7440-38-2	Arsenic	25	0.85	0.30	mg/Kg			10	6020
7440-41-7	Beryllium	0.43	0.34	0.037	mg/Kg			10	6020
7440-43-9	Cadmium	0.40	0.34	0.014	mg/Kg			10	6020
7440-47-3	Chromium	33	0.34	0.19	mg/Kg			10	6020
7440-50-8	Copper	23	0.34	0.17	mg/Kg			10	6020
7439-92-1	Lead	29	0.34	0.022	mg/Kg			10	6020
7439-96-5	Manganese	180	0.85	0.29	mg/Kg			10	6020
7440-02-0	Nickel	26	0.34	0.34	mg/Kg			10	6020
7782-49-2	Selenium	1.2	1.2	0.34	mg/Kg			10	6020
7440-22-4	Silver	0.15	0.34	0.020	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.85	0.22	mg/Kg			10	6020
7440-66-6	Zinc	53	1.2	1.9	mg/Kg			10	6020
7440-23-5	Sodium	94	170	66	mg/Kg	J		10	6020
7440-39-3	Barium	46	0.34	0.051	mg/Kg			10	6020
7440-62-2	Vanadium	55	1.2	0.80	mg/Kg			10	6020
7440-48-4	Cobalt	6.0	0.34	0.032	mg/Kg			10	6020
7439-97-6	Mercury	0.27	0.025	0.0079	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-1 | Lab Sample ID: 580-28720-28

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 15:10

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 58.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	32000	1500	93	mg/Kg			100	6010B
7440-09-7	Potassium	570	250	24	mg/Kg			1	6010B
7440-70-2	Calcium	720	84	4.7	mg/Kg			1	6010B
7439-95-4	Magnesium	5600	84	4.9	mg/Kg			1	6010B
7429-90-5	Aluminum	32000	46	4.6	mg/Kg			10	6020
7440-36-0	Antimony	0.32	0.31	0.064	mg/Kg			10	6020
7440-38-2	Arsenic	17	0.76	0.28	mg/Kg			10	6020
7440-41-7	Beryllium	0.51	0.31	0.034	mg/Kg			10	6020
7440-43-9	Cadmium	0.39	0.31	0.012	mg/Kg			10	6020
7440-47-3	Chromium	62	0.31	0.17	mg/Kg			10	6020
7440-50-8	Copper	34	0.31	0.15	mg/Kg			10	6020
7439-92-1	Lead	17	0.31	0.020	mg/Kg			10	6020
7439-96-5	Manganese	520	0.76	0.26	mg/Kg			10	6020
7440-02-0	Nickel	39	0.31	0.31	mg/Kg			10	6020
7782-49-2	Selenium	1.3	1.1	0.31	mg/Kg			10	6020
7440-22-4	Silver	0.61	0.31	0.018	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.76	0.20	mg/Kg			10	6020
7440-66-6	Zinc	65	1.1	1.7	mg/Kg			10	6020
7440-23-5	Sodium	130	150	60	mg/Kg	J		10	6020
7440-39-3	Barium	80	0.31	0.046	mg/Kg			10	6020
7440-62-2	Vanadium	75	1.1	0.72	mg/Kg			10	6020
7440-48-4	Cobalt	11	0.31	0.029	mg/Kg			10	6020
7439-97-6	Mercury	0.15	0.026	0.0081	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: W-17 | Lab Sample ID: 580-28720-29

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 12:05

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 60.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	32000	1600	97	mg/Kg			100	6010B
7440-09-7	Potassium	340	260	25	mg/Kg			1	6010B
7440-70-2	Calcium	730	87	4.9	mg/Kg			1	6010B
7439-95-4	Magnesium	4300	87	5.1	mg/Kg			1	6010B
7429-90-5	Aluminum	29000	48	4.8	mg/Kg			10	6020
7440-36-0	Antimony	0.30	0.32	0.067	mg/Kg	J		10	6020
7440-38-2	Arsenic	17	0.80	0.29	mg/Kg			10	6020
7440-41-7	Beryllium	0.73	0.32	0.035	mg/Kg			10	6020
7440-43-9	Cadmium	0.30	0.32	0.013	mg/Kg	J		10	6020
7440-47-3	Chromium	44	0.32	0.18	mg/Kg			10	6020
7440-50-8	Copper	21	0.32	0.16	mg/Kg			10	6020
7439-92-1	Lead	10	0.32	0.021	mg/Kg			10	6020
7439-96-5	Manganese	320	0.80	0.27	mg/Kg			10	6020
7440-02-0	Nickel	31	0.32	0.32	mg/Kg			10	6020
7782-49-2	Selenium	1.2	1.1	0.32	mg/Kg			10	6020
7440-22-4	Silver	0.21	0.32	0.019	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.80	0.21	mg/Kg			10	6020
7440-66-6	Zinc	48	1.1	1.8	mg/Kg			10	6020
7440-23-5	Sodium	110	160	62	mg/Kg	J		10	6020
7440-39-3	Barium	52	0.32	0.048	mg/Kg			10	6020
7440-62-2	Vanadium	65	1.1	0.75	mg/Kg			10	6020
7440-48-4	Cobalt	11	0.32	0.030	mg/Kg			10	6020
7439-97-6	Mercury	0.13	0.025	0.0079	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-9 | Lab Sample ID: 580-28720-30

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 14:25

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 85.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	49000	1100	68	mg/Kg			100	6010B
7440-09-7	Potassium	1400	180	18	mg/Kg			1	6010B
7440-70-2	Calcium	1900	61	3.5	mg/Kg			1	6010B
7439-95-4	Magnesium	5700	61	3.6	mg/Kg			1	6010B
7429-90-5	Aluminum	22000	33	3.3	mg/Kg			10	6020
7440-36-0	Antimony	7.2	0.22	0.047	mg/Kg			10	6020
7440-38-2	Arsenic	380	0.56	0.20	mg/Kg			10	6020
7440-41-7	Beryllium	0.37	0.22	0.025	mg/Kg			10	6020
7440-43-9	Cadmium	0.62	0.22	0.0089	mg/Kg			10	6020
7440-47-3	Chromium	12	0.22	0.13	mg/Kg			10	6020
7440-50-8	Copper	190	0.22	0.11	mg/Kg			10	6020
7439-92-1	Lead	91	0.22	0.014	mg/Kg			10	6020
7439-96-5	Manganese	2400	0.56	0.19	mg/Kg			10	6020
7440-02-0	Nickel	7.2	0.22	0.23	mg/Kg			10	6020
7782-49-2	Selenium	1.8	0.78	0.22	mg/Kg			10	6020
7440-22-4	Silver	0.71	0.22	0.013	mg/Kg			10	6020
7440-28-0	Thallium	0.28	0.56	0.14	mg/Kg	J		10	6020
7440-66-6	Zinc	270	0.78	1.2	mg/Kg			10	6020
7440-23-5	Sodium	320	110	44	mg/Kg			10	6020
7440-39-3	Barium	72	0.22	0.033	mg/Kg			10	6020
7440-62-2	Vanadium	87	0.78	0.53	mg/Kg			10	6020
7440-48-4	Cobalt	50	0.22	0.021	mg/Kg			10	6020
7439-97-6	Mercury	0.10	0.017	0.0054	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-12 | Lab Sample ID: 580-28720-31

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 16:05

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 74.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	55000	1200	72	mg/Kg			100	6010B
7440-09-7	Potassium	1400	190	19	mg/Kg			1	6010B
7440-70-2	Calcium	1200	65	3.7	mg/Kg			1	6010B
7439-95-4	Magnesium	5000	65	3.8	mg/Kg			1	6010B
7429-90-5	Aluminum	20000	35	3.5	mg/Kg			10	6020
7440-36-0	Antimony	6.5	0.24	0.050	mg/Kg			10	6020
7440-38-2	Arsenic	260	0.59	0.21	mg/Kg			10	6020
7440-41-7	Beryllium	0.29	0.24	0.026	mg/Kg			10	6020
7440-43-9	Cadmium	0.59	0.24	0.0094	mg/Kg			10	6020
7440-47-3	Chromium	11	0.24	0.13	mg/Kg			10	6020
7440-50-8	Copper	200	0.24	0.12	mg/Kg			10	6020
7439-92-1	Lead	80	0.24	0.015	mg/Kg			10	6020
7439-96-5	Manganese	1800	0.59	0.20	mg/Kg			10	6020
7440-02-0	Nickel	6.6	0.24	0.24	mg/Kg			10	6020
7782-49-2	Selenium	2.0	0.83	0.24	mg/Kg			10	6020
7440-22-4	Silver	0.79	0.24	0.014	mg/Kg			10	6020
7440-28-0	Thallium	0.27	0.59	0.15	mg/Kg	J		10	6020
7440-66-6	Zinc	150	0.83	1.3	mg/Kg			10	6020
7440-23-5	Sodium	280	120	46	mg/Kg			10	6020
7440-39-3	Barium	73	0.24	0.035	mg/Kg			10	6020
7440-62-2	Vanadium	82	0.83	0.56	mg/Kg			10	6020
7440-48-4	Cobalt	34	0.24	0.022	mg/Kg			10	6020
7439-97-6	Mercury	0.11	0.020	0.0064	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-8 | Lab Sample ID: 580-28720-32

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 14:10

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 82.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	30000	1200	71	mg/Kg			100	6010B
7440-09-7	Potassium	610	190	19	mg/Kg			1	6010B
7440-70-2	Calcium	360	64	3.6	mg/Kg			1	6010B
7439-95-4	Magnesium	5200	64	3.7	mg/Kg			1	6010B
7429-90-5	Aluminum	27000	35	3.5	mg/Kg			10	6020
7440-36-0	Antimony	2.9	0.23	0.049	mg/Kg			10	6020
7440-38-2	Arsenic	160	0.58	0.21	mg/Kg			10	6020
7440-41-7	Beryllium	0.36	0.23	0.026	mg/Kg			10	6020
7440-43-9	Cadmium	0.28	0.23	0.0093	mg/Kg			10	6020
7440-47-3	Chromium	71	0.23	0.13	mg/Kg			10	6020
7440-50-8	Copper	76	0.23	0.11	mg/Kg			10	6020
7439-92-1	Lead	53	0.23	0.015	mg/Kg			10	6020
7439-96-5	Manganese	1200	0.58	0.20	mg/Kg			10	6020
7440-02-0	Nickel	49	0.23	0.24	mg/Kg			10	6020
7782-49-2	Selenium	1.2	0.82	0.24	mg/Kg			10	6020
7440-22-4	Silver	0.40	0.23	0.014	mg/Kg			10	6020
7440-28-0	Thallium	0.31	0.58	0.15	mg/Kg	J		10	6020
7440-66-6	Zinc	180	0.82	1.3	mg/Kg			10	6020
7440-23-5	Sodium	95	120	46	mg/Kg	J		10	6020
7440-39-3	Barium	36	0.23	0.035	mg/Kg			10	6020
7440-62-2	Vanadium	69	0.82	0.55	mg/Kg			10	6020
7440-48-4	Cobalt	7.8	0.23	0.022	mg/Kg			10	6020
7439-97-6	Mercury	0.19	0.019	0.0061	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76 S-2 6-12 | Lab Sample ID: 580-28720-33

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/13/2011 17:40

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 92.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	74000	1100	66	mg/Kg			100	6010B
7440-09-7	Potassium	870	180	17	mg/Kg			1	6010B
7440-70-2	Calcium	1100	59	3.3	mg/Kg			1	6010B
7439-95-4	Magnesium	590	59	3.4	mg/Kg			1	6010B
7429-90-5	Aluminum	2400	32	3.2	mg/Kg			10	6020
7440-36-0	Antimony	160	0.21	0.045	mg/Kg			10	6020
7440-38-2	Arsenic	10000	54	19	mg/Kg			1000	6020
7440-41-7	Beryllium	0.30	0.21	0.024	mg/Kg			10	6020
7440-43-9	Cadmium	16	0.21	0.0086	mg/Kg			10	6020
7440-47-3	Chromium	1.2	0.21	0.12	mg/Kg			10	6020
7440-50-8	Copper	170	0.21	0.11	mg/Kg			10	6020
7439-92-1	Lead	830	0.21	0.014	mg/Kg			10	6020
7439-96-5	Manganese	5600	54	18	mg/Kg			1000	6020
7440-02-0	Nickel	5.6	0.21	0.22	mg/Kg			10	6020
7782-49-2	Selenium	0.58	0.75	0.22	mg/Kg	J		10	6020
7440-22-4	Silver	8.2	0.21	0.013	mg/Kg			10	6020
7440-28-0	Thallium	0.56	0.54	0.14	mg/Kg			10	6020
7440-66-6	Zinc	2200	0.75	1.2	mg/Kg			10	6020
7440-23-5	Sodium	ND	110	42	mg/Kg			10	6020
7440-39-3	Barium	21	0.21	0.032	mg/Kg			10	6020
7440-62-2	Vanadium	14	0.75	0.51	mg/Kg			10	6020
7440-48-4	Cobalt	17	0.21	0.020	mg/Kg			10	6020
7439-97-6	Mercury	1.0	0.14	0.046	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-7 | Lab Sample ID: 580-28720-34

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 13:30

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 90.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	24000	1000	61	mg/Kg			100	6010B
7440-09-7	Potassium	350	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	560	55	3.1	mg/Kg			1	6010B
7439-95-4	Magnesium	2200	55	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	13000	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	2.9	0.20	0.042	mg/Kg			10	6020
7440-38-2	Arsenic	150	0.50	0.18	mg/Kg			10	6020
7440-41-7	Beryllium	0.084	0.20	0.022	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.20	0.20	0.0080	mg/Kg			10	6020
7440-47-3	Chromium	7.4	0.20	0.11	mg/Kg			10	6020
7440-50-8	Copper	26	0.20	0.098	mg/Kg			10	6020
7439-92-1	Lead	20	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	190	0.50	0.17	mg/Kg			10	6020
7440-02-0	Nickel	3.3	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	0.34	0.70	0.20	mg/Kg	J		10	6020
7440-22-4	Silver	0.33	0.20	0.012	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.50	0.13	mg/Kg			10	6020
7440-66-6	Zinc	55	0.70	1.1	mg/Kg			10	6020
7440-23-5	Sodium	150	100	39	mg/Kg			10	6020
7440-39-3	Barium	19	0.20	0.030	mg/Kg			10	6020
7440-62-2	Vanadium	64	0.70	0.47	mg/Kg			10	6020
7440-48-4	Cobalt	3.9	0.20	0.019	mg/Kg			10	6020
7439-97-6	Mercury	0.037	0.017	0.0055	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-11 | Lab Sample ID: 580-28720-35

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 13:15

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 76.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	35000	1300	79	mg/Kg		B	100	6010B
7440-09-7	Potassium	1300	210	21	mg/Kg			1	6010B
7440-70-2	Calcium	1800	71	4.0	mg/Kg			1	6010B
7439-95-4	Magnesium	5300	71	4.2	mg/Kg			1	6010B
7429-90-5	Aluminum	17000	39	3.9	mg/Kg			10	6020
7440-36-0	Antimony	8.2	0.26	0.055	mg/Kg			10	6020
7440-38-2	Arsenic	230	0.65	0.23	mg/Kg			10	6020
7440-41-7	Beryllium	0.16	0.26	0.029	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.78	0.26	0.010	mg/Kg			10	6020
7440-47-3	Chromium	11	0.26	0.15	mg/Kg			10	6020
7440-50-8	Copper	140	0.26	0.13	mg/Kg			10	6020
7439-92-1	Lead	88	0.26	0.017	mg/Kg			10	6020
7439-96-5	Manganese	1300	0.65	0.22	mg/Kg			10	6020
7440-02-0	Nickel	8.2	0.26	0.26	mg/Kg			10	6020
7782-49-2	Selenium	1.2	0.91	0.26	mg/Kg			10	6020
7440-22-4	Silver	1.9	0.26	0.016	mg/Kg			10	6020
7440-28-0	Thallium	0.31	0.65	0.17	mg/Kg	J		10	6020
7440-66-6	Zinc	160	0.91	1.5	mg/Kg			10	6020
7440-23-5	Sodium	390	130	51	mg/Kg			10	6020
7440-39-3	Barium	52	0.26	0.039	mg/Kg			10	6020
7440-62-2	Vanadium	79	0.91	0.61	mg/Kg			10	6020
7440-48-4	Cobalt	19	0.26	0.025	mg/Kg			10	6020
7439-97-6	Mercury	0.11	0.020	0.0062	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-6 | Lab Sample ID: 580-28720-36

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 14:30

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 68.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	22000	1300	78	mg/Kg		B	100	6010B
7440-09-7	Potassium	400	210	20	mg/Kg			1	6010B
7440-70-2	Calcium	300	70	4.0	mg/Kg			1	6010B
7439-95-4	Magnesium	2400	70	4.1	mg/Kg			1	6010B
7429-90-5	Aluminum	23000	38	3.8	mg/Kg			10	6020
7440-36-0	Antimony	2.7	0.26	0.054	mg/Kg			10	6020
7440-38-2	Arsenic	100	0.64	0.23	mg/Kg			10	6020
7440-41-7	Beryllium	0.26	0.26	0.028	mg/Kg			10	6020
7440-43-9	Cadmium	0.37	0.26	0.010	mg/Kg			10	6020
7440-47-3	Chromium	25	0.26	0.14	mg/Kg			10	6020
7440-50-8	Copper	51	0.26	0.13	mg/Kg			10	6020
7439-92-1	Lead	59	0.26	0.017	mg/Kg			10	6020
7439-96-5	Manganese	180	0.64	0.22	mg/Kg			10	6020
7440-02-0	Nickel	10	0.26	0.26	mg/Kg			10	6020
7782-49-2	Selenium	1.1	0.89	0.26	mg/Kg			10	6020
7440-22-4	Silver	0.62	0.26	0.015	mg/Kg			10	6020
7440-28-0	Thallium	0.30	0.64	0.17	mg/Kg	J		10	6020
7440-66-6	Zinc	61	0.89	1.4	mg/Kg			10	6020
7440-23-5	Sodium	120	130	50	mg/Kg	J		10	6020
7440-39-3	Barium	23	0.26	0.038	mg/Kg			10	6020
7440-62-2	Vanadium	50	0.89	0.60	mg/Kg			10	6020
7440-48-4	Cobalt	5.0	0.26	0.024	mg/Kg			10	6020
7439-97-6	Mercury	0.23	0.023	0.0072	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 74 S-2 0-6 | Lab Sample ID: 580-28720-37

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/15/2011 13:20

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 86.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	69000	1100	69	mg/Kg		B	100	6010B
7440-09-7	Potassium	2100	190	18	mg/Kg			1	6010B
7440-70-2	Calcium	3100	62	3.5	mg/Kg			1	6010B
7439-95-4	Magnesium	6400	62	3.6	mg/Kg			1	6010B
7429-90-5	Aluminum	15000	34	3.4	mg/Kg			10	6020
7440-36-0	Antimony	17	0.22	0.047	mg/Kg			10	6020
7440-38-2	Arsenic	5100	56	20	mg/Kg			1000	6020
7440-41-7	Beryllium	0.49	0.22	0.025	mg/Kg			10	6020
7440-43-9	Cadmium	15	0.22	0.0090	mg/Kg			10	6020
7440-47-3	Chromium	14	0.22	0.13	mg/Kg			10	6020
7440-50-8	Copper	170	0.22	0.11	mg/Kg			10	6020
7439-92-1	Lead	3600	22	1.5	mg/Kg			1000	6020
7439-96-5	Manganese	4600	56	19	mg/Kg			1000	6020
7440-02-0	Nickel	24	0.22	0.23	mg/Kg			10	6020
7782-49-2	Selenium	1.8	0.79	0.23	mg/Kg			10	6020
7440-22-4	Silver	20	0.22	0.013	mg/Kg			10	6020
7440-28-0	Thallium	0.36	0.56	0.15	mg/Kg	J		10	6020
7440-66-6	Zinc	2600	79	130	mg/Kg			1000	6020
7440-23-5	Sodium	240	110	44	mg/Kg			10	6020
7440-39-3	Barium	73	0.22	0.034	mg/Kg			10	6020
7440-62-2	Vanadium	39	0.79	0.53	mg/Kg			10	6020
7440-48-4	Cobalt	26	0.22	0.021	mg/Kg			10	6020
7439-97-6	Mercury	0.33	0.015	0.0046	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 74 S-1 0-6 | Lab Sample ID: 580-28720-38

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/15/2011 13:10

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 73.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	57000	1300	78	mg/Kg		B	100	6010B
7440-09-7	Potassium	1800	210	20	mg/Kg			1	6010B
7440-70-2	Calcium	1300	70	4.0	mg/Kg			1	6010B
7439-95-4	Magnesium	6200	70	4.1	mg/Kg			1	6010B
7429-90-5	Aluminum	22000	38	3.8	mg/Kg			10	6020
7440-36-0	Antimony	6.0	0.25	0.054	mg/Kg			10	6020
7440-38-2	Arsenic	2600	0.64	0.23	mg/Kg			10	6020
7440-41-7	Beryllium	0.60	0.25	0.028	mg/Kg			10	6020
7440-43-9	Cadmium	7.7	0.25	0.010	mg/Kg			10	6020
7440-47-3	Chromium	14	0.25	0.14	mg/Kg			10	6020
7440-50-8	Copper	110	0.25	0.12	mg/Kg			10	6020
7439-92-1	Lead	1300	0.25	0.017	mg/Kg			10	6020
7439-96-5	Manganese	5900	64	22	mg/Kg			1000	6020
7440-02-0	Nickel	20	0.25	0.26	mg/Kg			10	6020
7782-49-2	Selenium	1.6	0.89	0.26	mg/Kg			10	6020
7440-22-4	Silver	5.1	0.25	0.015	mg/Kg			10	6020
7440-28-0	Thallium	0.36	0.64	0.17	mg/Kg	J		10	6020
7440-66-6	Zinc	1200	0.89	1.4	mg/Kg			10	6020
7440-23-5	Sodium	130	130	50	mg/Kg			10	6020
7440-39-3	Barium	52	0.25	0.038	mg/Kg			10	6020
7440-62-2	Vanadium	51	0.89	0.60	mg/Kg			10	6020
7440-48-4	Cobalt	32	0.25	0.024	mg/Kg			10	6020
7439-97-6	Mercury	0.30	0.016	0.0052	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: G-10 | Lab Sample ID: 580-28720-39

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 15:25

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 77.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	45000	1200	71	mg/Kg		B	100	6010B
7440-09-7	Potassium	1500	190	18	mg/Kg			1	6010B
7440-70-2	Calcium	890	64	3.6	mg/Kg			1	6010B
7439-95-4	Magnesium	5600	64	3.7	mg/Kg			1	6010B
7429-90-5	Aluminum	20000	35	3.5	mg/Kg			10	6020
7440-36-0	Antimony	4.1	0.23	0.049	mg/Kg			10	6020
7440-38-2	Arsenic	180	0.58	0.21	mg/Kg			10	6020
7440-41-7	Beryllium	0.13	0.23	0.025	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.48	0.23	0.0092	mg/Kg			10	6020
7440-47-3	Chromium	11	0.23	0.13	mg/Kg			10	6020
7440-50-8	Copper	130	0.23	0.11	mg/Kg			10	6020
7439-92-1	Lead	53	0.23	0.015	mg/Kg			10	6020
7439-96-5	Manganese	980	0.58	0.20	mg/Kg			10	6020
7440-02-0	Nickel	5.3	0.23	0.23	mg/Kg			10	6020
7782-49-2	Selenium	2.1	0.81	0.23	mg/Kg			10	6020
7440-22-4	Silver	0.69	0.23	0.014	mg/Kg			10	6020
7440-28-0	Thallium	0.33	0.58	0.15	mg/Kg	J		10	6020
7440-66-6	Zinc	71	0.81	1.3	mg/Kg			10	6020
7440-23-5	Sodium	250	120	45	mg/Kg			10	6020
7440-39-3	Barium	47	0.23	0.035	mg/Kg			10	6020
7440-62-2	Vanadium	95	0.81	0.55	mg/Kg			10	6020
7440-48-4	Cobalt	17	0.23	0.022	mg/Kg			10	6020
7439-97-6	Mercury	0.098	0.020	0.0062	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Emma 2 S-2 6-12 | Lab Sample ID: 580-28720-40

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/15/2011 13:30

Reporting Basis: DRY | Date Received: 09/20/2011 11:00

% Solids: 89.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	75000	970	59	mg/Kg		B	100	6010B
7440-09-7	Potassium	1100	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	680	53	3.0	mg/Kg			1	6010B
7439-95-4	Magnesium	6600	53	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	12000	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	3.4	0.19	0.041	mg/Kg			10	6020
7440-38-2	Arsenic	2200	0.49	0.17	mg/Kg			10	6020
7440-41-7	Beryllium	0.27	0.19	0.021	mg/Kg			10	6020
7440-43-9	Cadmium	2.8	0.19	0.0078	mg/Kg			10	6020
7440-47-3	Chromium	15	0.19	0.11	mg/Kg			10	6020
7440-50-8	Copper	140	0.19	0.095	mg/Kg			10	6020
7439-92-1	Lead	870	0.19	0.013	mg/Kg			10	6020
7439-96-5	Manganese	2100	0.49	0.16	mg/Kg			10	6020
7440-02-0	Nickel	19	0.19	0.20	mg/Kg			10	6020
7782-49-2	Selenium	0.99	0.68	0.20	mg/Kg			10	6020
7440-22-4	Silver	7.6	0.19	0.012	mg/Kg			10	6020
7440-28-0	Thallium	0.19	0.49	0.13	mg/Kg	J		10	6020
7440-66-6	Zinc	1500	0.68	1.1	mg/Kg			10	6020
7440-23-5	Sodium	42	97	38	mg/Kg	J		10	6020
7440-39-3	Barium	31	0.19	0.029	mg/Kg			10	6020
7440-62-2	Vanadium	33	0.68	0.46	mg/Kg			10	6020
7440-48-4	Cobalt	13	0.19	0.018	mg/Kg			10	6020
7439-97-6	Mercury	0.56	0.016	0.0050	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Emma 2 S-1 0-6 Lab Sample ID: 580-28720-41

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/15/2011 13:00

Reporting Basis: DRY Date Received: 09/20/2011 11:00

% Solids: 78.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	72000	1100	68	mg/Kg		B	100	6010B
7440-09-7	Potassium	900	180	18	mg/Kg			1	6010B
7440-70-2	Calcium	1700	61	3.5	mg/Kg			1	6010B
7439-95-4	Magnesium	4600	61	3.6	mg/Kg			1	6010B
7429-90-5	Aluminum	21000	33	3.3	mg/Kg			10	6020
7440-36-0	Antimony	5.9	0.22	0.047	mg/Kg			10	6020
7440-38-2	Arsenic	2800	56	20	mg/Kg			1000	6020
7440-41-7	Beryllium	0.63	0.22	0.025	mg/Kg			10	6020
7440-43-9	Cadmium	17	0.22	0.0089	mg/Kg			10	6020
7440-47-3	Chromium	15	0.22	0.13	mg/Kg			10	6020
7440-50-8	Copper	290	0.22	0.11	mg/Kg			10	6020
7439-92-1	Lead	1400	0.22	0.014	mg/Kg			10	6020
7439-96-5	Manganese	5400	56	19	mg/Kg			1000	6020
7440-02-0	Nickel	21	0.22	0.23	mg/Kg			10	6020
7782-49-2	Selenium	1.6	0.78	0.23	mg/Kg			10	6020
7440-22-4	Silver	11	0.22	0.013	mg/Kg			10	6020
7440-28-0	Thallium	0.26	0.56	0.14	mg/Kg	J		10	6020
7440-66-6	Zinc	2100	0.78	1.2	mg/Kg			10	6020
7440-23-5	Sodium	87	110	44	mg/Kg	J		10	6020
7440-39-3	Barium	57	0.22	0.033	mg/Kg			10	6020
7440-62-2	Vanadium	50	0.78	0.53	mg/Kg			10	6020
7440-48-4	Cobalt	44	0.22	0.021	mg/Kg			10	6020
7439-97-6	Mercury	0.49	0.019	0.0061	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: Emma 2 S-2 0-6 Lab Sample ID: 580-28720-42

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/15/2011 13:20

Reporting Basis: DRY Date Received: 09/20/2011 11:00

% Solids: 91.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7439-89-6	Iron	76000	1100	66	mg/Kg		B	100	6010B
7440-09-7	Potassium	1400	180	17	mg/Kg			1	6010B
7440-70-2	Calcium	710	59	3.3	mg/Kg			1	6010B
7439-95-4	Magnesium	6500	59	3.4	mg/Kg			1	6010B
7429-90-5	Aluminum	12000	32	3.2	mg/Kg			10	6020
7440-36-0	Antimony	3.8	0.22	0.045	mg/Kg			10	6020
7440-38-2	Arsenic	2400	54	19	mg/Kg			1000	6020
7440-41-7	Beryllium	0.26	0.22	0.024	mg/Kg			10	6020
7440-43-9	Cadmium	1.5	0.22	0.0086	mg/Kg			10	6020
7440-47-3	Chromium	18	0.22	0.12	mg/Kg			10	6020
7440-50-8	Copper	140	0.22	0.11	mg/Kg			10	6020
7439-92-1	Lead	860	0.22	0.014	mg/Kg			10	6020
7439-96-5	Manganese	1900	0.54	0.18	mg/Kg			10	6020
7440-02-0	Nickel	18	0.22	0.22	mg/Kg			10	6020
7782-49-2	Selenium	0.88	0.75	0.22	mg/Kg			10	6020
7440-22-4	Silver	5.8	0.22	0.013	mg/Kg			10	6020
7440-28-0	Thallium	0.17	0.54	0.14	mg/Kg	J		10	6020
7440-66-6	Zinc	1300	0.75	1.2	mg/Kg			10	6020
7440-23-5	Sodium	42	110	42	mg/Kg	J		10	6020
7440-39-3	Barium	37	0.22	0.032	mg/Kg			10	6020
7440-62-2	Vanadium	34	0.75	0.51	mg/Kg			10	6020
7440-48-4	Cobalt	13	0.22	0.020	mg/Kg			10	6020
7439-97-6	Mercury	0.51	0.016	0.0049	mg/Kg			1	7471A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	ICV 580-96078/6 09/24/2011 09:22				CCV 580-96078/11 09/24/2011 10:10				CCV 580-96078/23 09/24/2011 11:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5.45		5.00	109	20.8		20.0	104	21.2		20.0	106
Iron	5.14		5.00	103	10.4		10.0	104	10.1		10.0	101
Magnesium	5.29		5.00	106	20.9		20.0	105	20.6		20.0	103
Potassium	15.7		15.0	105	20.4		20.0	102	20.5		20.0	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	CCV 580-96078/34 09/24/2011 12:57				CCV 580-96078/46 09/24/2011 14:22				CCV 580-96078/58 09/24/2011 15:50			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	20.6		20.0	103	21.0		20.0	105	20.7		20.0	104
Iron	9.68		10.0	97	9.62		10.0	96	9.42		10.0	94
Magnesium	20.1		20.0	101	19.9		20.0	100	19.8		20.0	99
Potassium	20.6		20.0	103	21.0		20.0	105	21.0		20.0	105

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	CCV 580-96078/64 09/24/2011 16:33				CCV 580-96078/76 09/24/2011 18:00				CCV 580-96078/87 09/24/2011 19:18			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	21.2		20.0	106	20.6		20.0	103	20.9		20.0	104
Iron	10.0		10.0	100	9.69		10.0	97	9.59		10.0	96
Magnesium	20.2		20.0	101	19.9		20.0	99	19.7		20.0	98
Potassium	20.4		20.0	102	20.3		20.0	101	20.8		20.0	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	CCV 580-96078/99 09/24/2011 20:46				CCV 580-96078/111 09/24/2011 22:12				CCV 580-96078/117 09/24/2011 22:59			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	20.6		20.0	103	20.3		20.0	101	20.4		20.0	102
Iron	9.28		10.0	93	9.20		10.0	92	9.65		10.0	97
Magnesium	19.5		20.0	98	19.2		20.0	96	19.5		20.0	98
Potassium	21.0		20.0	105	20.6		20.0	103	20.4		20.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	ICV 580-96226/6 09/26/2011 12:15				CCV 580-96226/11 09/26/2011 16:18				CCV 580-96226/23 09/26/2011 17:44			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	4.98		5.00	100	21.2		20.0	106	21.0		20.0	105
Iron	4.89		5.00	98	10.3		10.0	103	10.2		10.0	102
Magnesium	5.16		5.00	103	20.8		20.0	104	20.8		20.0	104
Potassium	15.0		15.0	100	20.8		20.0	104	20.5		20.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICP ICV-2_00015 Concentration Units: mg/L

CCV Source: ICP CCV_00033

Analyte	CCV 580-96226/34 09/26/2011 19:05				CCV 580-96226/42 09/26/2011 20:02							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	20.5		20.0	102	21.2		20.0	106				
Iron	10.0		10.0	100	10.6		10.0	106				
Magnesium	20.3		20.0	101	21.4		20.0	107				
Potassium	19.9		20.0	99	20.8		20.0	104				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	ICV 580-96018/7 09/23/2011 10:54				CCV 580-96018/12 09/23/2011 11:23				CCV 580-96018/18 09/23/2011 11:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.415		0.400	104	0.501		0.500	100	0.511		0.500	102
Antimony	0.0397		0.0400	99	0.0506		0.0500	101	0.0500		0.0500	100
Arsenic	0.0397		0.0400	99	0.0504		0.0500	101	0.0491		0.0500	98
Barium	0.0399		0.0400	100	0.0504		0.0500	101	0.0499		0.0500	100
Beryllium	0.0400		0.0400	100	0.0499		0.0500	100	0.0504		0.0500	101
Cadmium	0.0400		0.0400	100	0.0509		0.0500	102	0.0501		0.0500	100
Chromium	0.0407		0.0400	102	0.0520		0.0500	104	0.0519		0.0500	104
Cobalt	0.0411		0.0400	103	0.0519		0.0500	104	0.0511		0.0500	102
Copper	0.0398		0.0400	99	0.0505		0.0500	101	0.0503		0.0500	101
Lead	0.0408		0.0400	102	0.0508		0.0500	102	0.0511		0.0500	102
Manganese	0.0410		0.0400	103	0.0524		0.0500	105	0.0519		0.0500	104
Nickel	0.0399		0.0400	100	0.0496		0.0500	99	0.0492		0.0500	98
Selenium	0.0394		0.0400	99	0.0495		0.0500	99	0.0492		0.0500	98
Silver	0.0405		0.0400	101	0.0505		0.0500	101	0.0508		0.0500	102
Sodium	ND		4.00	102	ND		5.00	98	ND		5.00	100
Thallium	0.0408		0.0400	102	0.0507		0.0500	101	0.0506		0.0500	101
Vanadium	0.0411		0.0400	103	0.0534		0.0500	107	0.0514		0.0500	103
Zinc	0.0400		0.0400	100	0.0505		0.0500	101	0.0503		0.0500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	CCV 580-96018/30 09/23/2011 12:37				CCV 580-96018/42 09/23/2011 13:19				CCV 580-96018/48 09/23/2011 13:38			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.501		0.500	100	0.504		0.500	101	0.520		0.500	104
Antimony	0.0498		0.0500	100	0.0500		0.0500	100	0.0505		0.0500	101
Arsenic	0.0502		0.0500	100	0.0497		0.0500	99	0.0509		0.0500	102
Barium	0.0488		0.0500	98	0.0497		0.0500	99	0.0503		0.0500	101
Beryllium	0.0507		0.0500	101	0.0492		0.0500	98	0.0495		0.0500	99
Cadmium	0.0502		0.0500	100	0.0503		0.0500	101	0.0505		0.0500	101
Chromium	0.0517		0.0500	103	0.0508		0.0500	102	0.0502		0.0500	100
Cobalt	0.0511		0.0500	102	0.0500		0.0500	100	0.0511		0.0500	102
Copper	0.0501		0.0500	100	0.0497		0.0500	99	0.0510		0.0500	102
Lead	0.0513		0.0500	103	0.0507		0.0500	101	0.0504		0.0500	101
Manganese	0.0514		0.0500	103	0.0497		0.0500	99	0.0502		0.0500	100
Nickel	0.0488		0.0500	98	0.0481		0.0500	96	0.0491		0.0500	98
Selenium	0.0483		0.0500	97	0.0493		0.0500	99	0.0493		0.0500	99
Silver	0.0502		0.0500	100	0.0504		0.0500	101	0.0509		0.0500	102
Sodium	ND		5.00	99	ND		5.00	100	ND		5.00	101
Thallium	0.0506		0.0500	101	0.0505		0.0500	101	0.0501		0.0500	100
Vanadium	0.0513		0.0500	103	0.0501		0.0500	100	0.0501		0.0500	100
Zinc	0.0499		0.0500	100	0.0492		0.0500	98	0.0494		0.0500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	ICV 580-96277/7 09/27/2011 08:41				CCV 580-96277/12 09/27/2011 09:33				CCV 580-96277/18 09/27/2011 09:59			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.400		0.400	100	0.475		0.500	95	0.471		0.500	94
Antimony	0.0399		0.0400	100	0.0503		0.0500	101	0.0500		0.0500	100
Arsenic	0.0406		0.0400	102	0.0497		0.0500	99	0.0500		0.0500	100
Barium	0.0402		0.0400	101	0.0511		0.0500	102	0.0507		0.0500	101
Beryllium	0.0400		0.0400	100	0.0514		0.0500	103	0.0514		0.0500	103
Cadmium	0.0408		0.0400	102	0.0506		0.0500	101	0.0500		0.0500	100
Chromium	0.0390		0.0400	97	0.0484		0.0500	97	0.0488		0.0500	98
Cobalt	0.0395		0.0400	99	0.0491		0.0500	98	0.0499		0.0500	100
Copper	0.0413		0.0400	103	0.0502		0.0500	100	0.0501		0.0500	100
Lead	0.0397		0.0400	99	0.0495		0.0500	99	0.0494		0.0500	99
Manganese	0.0403		0.0400	101	0.0501		0.0500	100	0.0507		0.0500	101
Nickel	0.0412		0.0400	103	0.0497		0.0500	99	0.0496		0.0500	99
Selenium	0.0406		0.0400	102	0.0490		0.0500	98	0.0496		0.0500	99
Silver	0.0396		0.0400	99	0.0494		0.0500	99	0.0484		0.0500	97
Sodium	ND		4.00	100	ND		5.00	96	ND		5.00	96
Thallium	0.0396		0.0400	99	0.0505		0.0500	101	0.0505		0.0500	101
Vanadium	0.0390		0.0400	97	0.0488		0.0500	98	0.0489		0.0500	98
Zinc	0.0408		0.0400	102	0.0507		0.0500	101	0.0507		0.0500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	CCV 580-96277/30 09/27/2011 10:51				CCV 580-96277/35 09/27/2011 11:13				CCV 580-96277/41 09/27/2011 11:42			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.468		0.500	94	0.465		0.500	93	0.457		0.500	91
Antimony	0.0499		0.0500	100	0.0505		0.0500	101	0.0499		0.0500	100
Arsenic	0.0495		0.0500	99	0.0501		0.0500	100	0.0494		0.0500	99
Barium	0.0508		0.0500	102	0.0505		0.0500	101	0.0505		0.0500	101
Beryllium	0.0509		0.0500	102	0.0516		0.0500	103	0.0519		0.0500	104
Cadmium	0.0500		0.0500	100	0.0501		0.0500	100	0.0496		0.0500	99
Chromium	0.0485		0.0500	97	0.0481		0.0500	96	0.0480		0.0500	96
Cobalt	0.0493		0.0500	99	0.0487		0.0500	97	0.0489		0.0500	98
Copper	0.0495		0.0500	99	0.0497		0.0500	99	0.0488		0.0500	98
Lead	0.0489		0.0500	98	0.0493		0.0500	99	0.0484		0.0500	97
Manganese	0.0506		0.0500	101	0.0504		0.0500	101	0.0504		0.0500	101
Nickel	0.0495		0.0500	99	0.0491		0.0500	98	0.0484		0.0500	97
Selenium	0.0493		0.0500	99	0.0491		0.0500	98	0.0490		0.0500	98
Silver	0.0483		0.0500	97	0.0488		0.0500	98	0.0480		0.0500	96
Sodium	ND		5.00	94	ND		5.00	96	ND		5.00	92
Thallium	0.0497		0.0500	99	0.0503		0.0500	101	0.0501		0.0500	100
Vanadium	0.0484		0.0500	97	0.0485		0.0500	97	0.0479		0.0500	96
Zinc	0.0509		0.0500	102	0.0506		0.0500	101	0.0499		0.0500	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	CCV 580-96277/53 09/27/2011 12:34				CCV 580-96277/65 09/27/2011 13:27				CCV 580-96277/74 09/27/2011 14:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.457		0.500	91	0.457		0.500	91	0.456		0.500	91
Antimony	0.0507		0.0500	101	0.0503		0.0500	101	0.0507		0.0500	101
Arsenic	0.0494		0.0500	99	0.0492		0.0500	98	0.0488		0.0500	98
Barium	0.0508		0.0500	102	0.0511		0.0500	102	0.0519		0.0500	104
Beryllium	0.0520		0.0500	104	0.0514		0.0500	103	0.0514		0.0500	103
Cadmium	0.0507		0.0500	101	0.0497		0.0500	99	0.0505		0.0500	101
Chromium	0.0481		0.0500	96	0.0485		0.0500	97	0.0483		0.0500	97
Cobalt	0.0491		0.0500	98	0.0490		0.0500	98	0.0491		0.0500	98
Copper	0.0490		0.0500	98	0.0490		0.0500	98	0.0490		0.0500	98
Lead	0.0488		0.0500	98	0.0490		0.0500	98	0.0484		0.0500	97
Manganese	0.0502		0.0500	100	0.0507		0.0500	101	0.0505		0.0500	101
Nickel	0.0488		0.0500	98	0.0490		0.0500	98	0.0485		0.0500	97
Selenium	0.0492		0.0500	98	0.0486		0.0500	97	0.0482		0.0500	96
Silver	0.0488		0.0500	98	0.0483		0.0500	97	0.0487		0.0500	97
Sodium	ND		5.00	93	ND		5.00	92	ND		5.00	92
Thallium	0.0500		0.0500	100	0.0499		0.0500	100	0.0492		0.0500	98
Vanadium	0.0483		0.0500	97	0.0484		0.0500	97	0.0482		0.0500	96
Zinc	0.0498		0.0500	100	0.0496		0.0500	99	0.0496		0.0500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	ICV 580-96125/7 09/23/2011 12:25				CCV 580-96125/11 09/23/2011 13:33				CCV 580-96125/18 09/23/2011 13:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00411		0.00400	103	0.00542		0.00500	108	0.00541		0.00500	108

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	CCV 580-96125/29 09/23/2011 14:17				CCV 580-96125/35 09/23/2011 14:27				CCV 580-96125/70 09/23/2011 15:36			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00566		0.00500	113	0.00569		0.00500	114	0.00566		0.00500	113

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	CCV 580-96125/79 09/23/2011 15:51											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00581		0.00500	116								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	ICV 580-96373/7 09/28/2011 12:20				CCV 580-96373/9 09/28/2011 12:57				CCV 580-96373/21 09/28/2011 13:17			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00432		0.00400	108	0.00475		0.00500	95	0.00447		0.00500	89

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	CCV 580-96373/33 09/28/2011 13:38				CCV 580-96373/38 09/28/2011 13:48				CCV 580-96373/50 09/28/2011 14:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00482		0.00500	96	0.00490		0.00500	98	0.00486		0.00500	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICV Source: Hg_ICV_WORK_00009 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00008

Analyte	CCV 580-96373/61 09/28/2011 14:29				CCV 580-96373/66 09/28/2011 14:38							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00487		0.00500	97	0.00496		0.00500	99				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Method: 6010B Instrument ID: TAC047

Lab Sample ID: CRI 580-96078/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00020

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Iron	0.200	0.171	J	86	50-150
Potassium	3.30	2.86	J	87	50-150
Calcium	1.10	1.17		106	50-150
Magnesium	1.10	1.16		105	50-150

Lab Sample ID: CRI 580-96226/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00020

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Iron	0.200	0.138	J	69	50-150
Potassium	3.30	2.99	J	90	50-150
Calcium	1.10	1.19		108	50-150
Magnesium	1.10	1.16		106	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Method: 6020 Instrument ID: SEA026

Lab Sample ID: CRI 580-96018/9 Concentration Units: mg/L

CRQL Check Standard Source: ICPMS_CAL_WOR_00008

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Aluminum	0.0200	ND		110	50-150
Antimony	0.00200	0.00201		100	50-150
Arsenic	0.00200	0.00197		99	50-150
Beryllium	0.00200	0.00203		102	50-150
Cadmium	0.00200	0.00201		100	50-150
Chromium	0.00200	0.00213		107	50-150
Copper	0.00200	0.00200		100	50-150
Lead	0.00200	0.00205		103	50-150
Manganese	0.00200	0.00198		99	50-150
Nickel	0.00200	0.00211	J	105	50-150
Selenium	0.00200	0.00207		103	50-150
Silver	0.00200	0.00199		100	50-150
Thallium	0.00200	0.00214		107	50-150
Zinc	0.00200	0.00204		102	50-150
Sodium	0.200	ND		97	50-150
Barium	0.00200	0.00194		97	50-150
Vanadium	0.00200	0.00206		103	50-150
Cobalt	0.00200	0.00210		105	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Method: 6020 Instrument ID: SEA044

Lab Sample ID: CRI 580-96277/9 Concentration Units: mg/L

CRQL Check Standard Source: ICPMS_CAL_WOR_00008

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Aluminum	0.0200	ND		94	50-150
Antimony	0.00200	0.00200		100	50-150
Arsenic	0.00200	0.00200		100	50-150
Beryllium	0.00200	0.00199		99	50-150
Cadmium	0.00200	0.00198		99	50-150
Chromium	0.00200	0.00193		96	50-150
Copper	0.00200	0.00210		105	50-150
Lead	0.00200	0.00201		100	50-150
Manganese	0.00200	0.00203		101	50-150
Nickel	0.00200	0.00202	J	101	50-150
Selenium	0.00200	0.00203		101	50-150
Silver	0.00200	0.00199		100	50-150
Thallium	0.00200	0.00194		97	50-150
Zinc	0.00200	0.00194		97	50-150
Sodium	0.200	ND		105	50-150
Barium	0.00200	0.00203		102	50-150
Vanadium	0.00200	0.00194	J	97	50-150
Cobalt	0.00200	0.00204		102	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-96078/7 09/24/2011 09:31		CCB 580-96078/12 09/24/2011 10:19		CCB 580-96078/24 09/24/2011 11:45		CCB 580-96078/35 09/24/2011 13:06	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	ND		ND		0.0723	J	ND	
Iron	0.20	ND		ND		0.0480	J	ND	
Magnesium	1.1	ND		ND		ND		ND	
Potassium	3.3	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-96078/47 09/24/2011 14:31		CCB 580-96078/59 09/24/2011 15:59		CCB 580-96078/65 09/24/2011 16:42		CCB 580-96078/77 09/24/2011 18:09	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	0.0504	J	0.0648	J	0.0283	J	ND	
Iron	0.20	ND		ND		ND		ND	
Magnesium	1.1	ND		ND		ND		ND	
Potassium	3.3	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-96078/88 09/24/2011 19:27		CCB 580-96078/100 09/24/2011 20:55		CCB 580-96078/112 09/24/2011 22:22		CCB 580-96078/118 09/24/2011 23:08	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	0.113	J	0.119	J	0.0538	J	ND	
Iron	0.20	ND		ND		0.105	J	0.192	J
Magnesium	1.1	ND		ND		ND		ND	
Potassium	3.3	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-96226/7 09/26/2011 12:24		CCB 580-96226/12 09/26/2011 16:27		CCB 580-96226/24 09/26/2011 17:53		CCB 580-96226/35 09/26/2011 19:14	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	0.0774	J	ND		0.0417	J	0.0363	J
Iron	0.20	0.0357	J	ND		ND		ND	
Magnesium	1.1	ND		ND		ND		ND	
Potassium	3.3	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-96226/43 09/26/2011 20:11							
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	ND							
Iron	0.20	ND							
Magnesium	1.1	ND							
Potassium	3.3	ND							

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-96018/8 09/23/2011 10:58		CCB 580-96018/13 09/23/2011 11:27		CCB 580-96018/19 09/23/2011 11:52		CCB 580-96018/31 09/23/2011 12:42	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND		ND		ND	
Antimony	0.00040	ND		ND		ND		0.000102	J
Arsenic	0.0010	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		0.0000580	J	ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Manganese	0.0010	ND		ND		ND		ND	
Nickel	0.0030	ND		0.000475	J	ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		ND		ND		ND	
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-96018/43 09/23/2011 13:22		CCB 580-96018/49 09/23/2011 13:41					
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND					
Antimony	0.00040	0.000105	J	ND					
Arsenic	0.0010	ND		ND					
Barium	0.0012	ND		ND					
Beryllium	0.00040	ND		ND					
Cadmium	0.00040	ND		ND					
Chromium	0.00040	ND		ND					
Cobalt	0.00040	ND		ND					
Copper	0.0010	ND		ND					
Lead	0.00040	ND		ND					
Manganese	0.0010	ND		ND					
Nickel	0.0030	ND		ND					
Selenium	0.0014	ND		ND					
Silver	0.00040	ND		ND					
Sodium	10	ND		ND					
Thallium	0.0010	ND		ND					
Vanadium	0.0020	ND		ND					
Zinc	0.0014	ND		ND					

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-96277/8 09/27/2011 08:45		CCB 580-96277/13 09/27/2011 09:38		CCB 580-96277/19 09/27/2011 10:04		CCB 580-96277/31 09/27/2011 10:55	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND		ND		ND	
Antimony	0.00040	ND		ND		ND		ND	
Arsenic	0.0010	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Manganese	0.0010	ND		ND		ND		ND	
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		ND		0.000350	J	ND	
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-96277/36 09/27/2011 11:18		CCB 580-96277/42 09/27/2011 11:47		CCB 580-96277/54 09/27/2011 12:39		CCB 580-96277/66 09/27/2011 13:31	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND		ND		ND	
Antimony	0.00040	ND		ND		ND		ND	
Arsenic	0.0010	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Manganese	0.0010	ND		ND		ND		ND	
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		0.000394	J	ND		ND	
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-96277/75 09/27/2011 14:15							
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND							
Antimony	0.00040	ND							
Arsenic	0.0010	ND							
Barium	0.0012	ND							
Beryllium	0.00040	ND							
Cadmium	0.00040	ND							
Chromium	0.00040	ND							
Cobalt	0.00040	ND							
Copper	0.0010	ND							
Lead	0.00040	ND							
Manganese	0.0010	ND							
Nickel	0.0030	ND							
Selenium	0.0014	ND							
Silver	0.00040	ND							
Sodium	10	ND							
Thallium	0.0010	ND							
Vanadium	0.0020	ND							
Zinc	0.0014	ND							

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-96125/8 09/23/2011 12:27		CCB 580-96125/12 09/23/2011 13:35		CCB 580-96125/19 09/23/2011 13:58		CCB 580-96125/30 09/23/2011 14:18	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	0.0000590	J	0.0000300	J	ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-96125/36 09/23/2011 14:29		CCB 580-96125/71 09/23/2011 15:37		CCB 580-96125/80 09/23/2011 15:53			
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	0.0000280	J	0.0000630	J	0.0000410	J		

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-96373/8 09/28/2011 12:22		CCB 580-96373/10 09/28/2011 12:58		CCB 580-96373/22 09/28/2011 13:19		CCB 580-96373/34 09/28/2011 13:39	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-96373/39 09/28/2011 13:50		CCB 580-96373/51 09/28/2011 14:11		CCB 580-96373/62 09/28/2011 14:31		CCB 580-96373/67 09/28/2011 14:40	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95937/21-A

Instrument Code: TAC047 Batch No.: 96078

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	1.35	J		6010B
7440-09-7	Potassium	ND			6010B
7440-70-2	Calcium	6.65	J		6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-96028/21-A

Instrument Code: TAC047 Batch No.: 96078

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	ND			6010B
7440-09-7	Potassium	ND			6010B
7440-70-2	Calcium	ND			6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-96039/12-A

Instrument Code: TAC047 Batch No.: 96226

CAS No.	Analyte	Concentration	C	Q	Method
7439-89-6	Iron	1.32	J		6010B
7440-09-7	Potassium	ND			6010B
7440-70-2	Calcium	ND			6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95937/21-A

Instrument Code: SEA026 Batch No.: 96018

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6020
7440-36-0	Antimony	ND			6020
7440-38-2	Arsenic	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7439-96-5	Manganese	ND			6020
7440-02-0	Nickel	0.225			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-28-0	Thallium	ND			6020
7440-66-6	Zinc	ND			6020
7440-23-5	Sodium	ND			6020
7440-39-3	Barium	ND			6020
7440-62-2	Vanadium	ND			6020
7440-48-4	Cobalt	0.0200	J		6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-96028/21-A

Instrument Code: SEA044 Batch No.: 96277

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6020
7440-36-0	Antimony	ND			6020
7440-38-2	Arsenic	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7439-96-5	Manganese	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-28-0	Thallium	ND			6020
7440-66-6	Zinc	ND			6020
7440-23-5	Sodium	ND			6020
7440-39-3	Barium	ND			6020
7440-62-2	Vanadium	ND			6020
7440-48-4	Cobalt	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-96039/12-A

Instrument Code: SEA044 Batch No.: 96277

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6020
7440-36-0	Antimony	ND			6020
7440-38-2	Arsenic	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7439-96-5	Manganese	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-28-0	Thallium	ND			6020
7440-66-6	Zinc	ND			6020
7440-23-5	Sodium	ND			6020
7440-39-3	Barium	ND			6020
7440-62-2	Vanadium	ND			6020
7440-48-4	Cobalt	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-95932/21-A

Instrument Code: TAC103 Batch No.: 96125

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-96254/21-A

Instrument Code: TAC103 Batch No.: 96373

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-96255/12-A

Instrument Code: TAC103 Batch No.: 96373

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSA 580-96078/9 Instrument ID: TAC047

Lab File ID: 580-95937-96028.asc ICS Source: ICP ICSA_00036

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500**	**472**	**94**
Iron	**200**	**193**	**96**
Magnesium	**500**	**484**	**97**
Potassium		**0.0808**	
Aluminum	*500*	*480*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSAB 580-96078/10 Instrument ID: TAC047

Lab File ID: 580-95937-96028.asc ICS Source: ICP ICSAB_00028

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500**	**476**	**95**
Iron	**200**	**198**	**99**
Magnesium	**500**	**486**	**97**
Potassium	**200**	**207**	**103**
Aluminum	*500*	*479*	*96*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSA 580-96226/9 Instrument ID: TAC047

Lab File ID: 580-96039.asc ICS Source: ICP ICSA_00036

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500**	**465**	**93**
Iron	**200**	**196**	**98**
Magnesium	**500**	**491**	**98**
Potassium		**0.323**	
Aluminum	*500*	*499*	*100*
Antimony		*-0.0009*	
Arsenic		*0.0002*	
Barium		*0.0025*	
Beryllium		*-0.0016*	
Cadmium		*0.0008*	
Chromium		*0.0026*	
Cobalt		*0.0009*	
Copper		*0.0106*	
Lead		*-0.0024*	
Manganese		*0.0132*	
Molybdenum		*0.0003*	
Nickel		*0.0015*	
Selenium		*0.0175*	
Silver		*0.0008*	
Thallium		*0.0060*	
Tin		*0.0027*	
Vanadium		*0.0034*	
Zinc		*-0.0196*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSAB 580-96226/10 Instrument ID: TAC047

Lab File ID: 580-96039.asc ICS Source: ICP ICSAB_00028

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Calcium	**500**	**478**	**96**
Iron	**200**	**199**	**100**
Magnesium	**500**	**495**	**99**
Potassium	**200**	**209**	**104**
Aluminum	*500*	*503*	*101*
Antimony	*10.0*	*10.2*	*102*
Arsenic	*10.0*	*10.5*	*105*
Barium	*3.00*	*3.02*	*101*
Beryllium	*1.00*	*0.985*	*99*
Cadmium	*3.00*	*2.85*	*95*
Chromium	*3.00*	*2.91*	*97*
Cobalt	*3.00*	*3.14*	*105*
Copper	*3.00*	*3.14*	*105*
Lead	*10.0*	*10.4*	*104*
Manganese	*2.00*	*1.95*	*97*
Molybdenum	*3.00*	*2.91*	*97*
Nickel	*3.00*	*3.10*	*103*
Selenium	*5.00*	*5.20*	*104*
Silver	*3.00*	*3.30*	*110*
Thallium	*10.0*	*10.1*	*101*
Tin		*0.0092*	
Vanadium	*3.00*	*2.97*	*99*
Zinc	*3.00*	*3.05*	*102*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSA 580-96018/10 Instrument ID: SEA026

Lab File ID: 95937-ICPMS.rep ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**20.0**	**20.1**	**101**
Antimony		**0.0001**	
Arsenic		**0.0001**	
Barium		**0.0003**	
Beryllium		**0.0000**	
Cadmium		**0.0006**	
Chromium		**0.0013**	
Cobalt		**0.0001**	
Copper		**0.0011**	
Lead		**0.0001**	
Manganese		**0.0008**	
Nickel		**0.0008**	
Selenium		**-0.0001**	
Silver		**0.0001**	
Sodium	**50.0**	**51.0**	**102**
Thallium		**0.0001**	
Vanadium		**0.0002**	
Zinc		**0.0009**	
Calcium	*60.0*	*59.4*	*99*
Iron	*50.0*	*48.9*	*98*
Magnesium	*20.0*	*20.3*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.396*	*99*
Phosphorus	*20.0*	*19.6*	*98*
Potassium	*20.0*	*19.8*	*99*
Strontium		*0.0001*	
Tin		*0.0002*	
Titanium	*0.400*	*0.342*	*86*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSAB 580-96018/11 Instrument ID: SEA026

Lab File ID: 95937-ICPMS.rep ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**20.0**	**19.3**	**97**
Antimony		**0.0001**	
Arsenic	**0.0200**	**0.0203**	**102**
Barium		**0.0002**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0208**	**104**
Chromium	**0.0400**	**0.0417**	**104**
Cobalt	**0.0400**	**0.0403**	**101**
Copper	**0.0400**	**0.0392**	**98**
Lead		**0.0002**	
Manganese	**0.0400**	**0.0402**	**101**
Nickel	**0.0400**	**0.0393**	**98**
Selenium	**0.0200**	**0.0200**	**100**
Silver	**0.0100**	**0.0099**	**99**
Sodium	**50.0**	**51.7**	**103**
Thallium		**0.0001**	
Vanadium	**0.0400**	**0.0413**	**103**
Zinc	**0.0200**	**0.0212**	**106**
Calcium	*60.0*	*58.7*	*98*
Iron	*50.0*	*49.1*	*98*
Magnesium	*20.0*	*20.2*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.397*	*99*
Phosphorus	*20.0*	*19.2*	*96*
Potassium	*20.0*	*19.3*	*97*
Strontium		*0.0001*	
Tin		*0.0001*	
Titanium	*0.400*	*0.352*	*88*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSAB 580-96018/11 Instrument ID: SEA026

Lab File ID: 95937-ICPMS.rep ICS Source: ICPMS-ICSB_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**20.0**	**19.3**	**97**
Antimony		**0.0001**	
Arsenic	**0.0200**	**0.0203**	**102**
Barium		**0.0002**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0208**	**104**
Chromium	**0.0400**	**0.0417**	**104**
Cobalt	**0.0400**	**0.0403**	**101**
Copper	**0.0400**	**0.0392**	**98**
Lead		**0.0002**	
Manganese	**0.0400**	**0.0402**	**101**
Nickel	**0.0400**	**0.0393**	**98**
Selenium	**0.0200**	**0.0200**	**100**
Silver	**0.0100**	**0.0099**	**99**
Sodium	**50.0**	**51.7**	**103**
Thallium		**0.0001**	
Vanadium	**0.0400**	**0.0413**	**103**
Zinc	**0.0200**	**0.0212**	**106**
Calcium	*60.0*	*58.7*	*98*
Iron	*50.0*	*49.1*	*98*
Magnesium	*20.0*	*20.2*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.397*	*99*
Phosphorus	*20.0*	*19.2*	*96*
Potassium	*20.0*	*19.3*	*97*
Strontium		*0.0001*	
Tin		*0.0001*	
Titanium	*0.400*	*0.352*	*88*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSA 580-96277/10 Instrument ID: SEA044

Lab File ID: 014SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**20.0**	**19.5**	**98**
Antimony		**0.0001**	
Arsenic		**0.0000**	
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium		**0.0001**	
Chromium		**0.0012**	
Cobalt		**0.0000**	
Copper		**0.0000**	
Lead		**0.0000**	
Manganese		**0.0008**	
Nickel		**0.0003**	
Selenium		**0.0001**	
Silver		**0.0000**	
Sodium	**50.0**	**50.9**	**102**
Thallium		**0.0001**	
Vanadium		**-0.0002**	
Zinc		**0.0004**	
Calcium	*60.0*	*60.3*	*101*
Iron	*50.0*	*49.8*	*100*
Magnesium	*20.0*	*20.3*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.461*	*115*
Phosphorus	*20.0*	*21.3*	*107*
Potassium	*20.0*	*20.3*	*101*
Strontium		*-0.0009*	
Tin		*0.0001*	
Titanium	*0.400*	*0.415*	*104*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSAB 580-96277/11 Instrument ID: SEA044

Lab File ID: 015SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**20.0**	**19.6**	**98**
Antimony		**0.0001**	
Arsenic	**0.0200**	**0.0217**	**108**
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0214**	**107**
Chromium	**0.0400**	**0.0407**	**102**
Cobalt	**0.0400**	**0.0402**	**100**
Copper	**0.0400**	**0.0410**	**102**
Lead		**0.0001**	
Manganese	**0.0400**	**0.0410**	**103**
Nickel	**0.0400**	**0.0417**	**104**
Selenium	**0.0200**	**0.0216**	**108**
Silver	**0.0100**	**0.0103**	**103**
Sodium	**50.0**	**51.6**	**103**
Thallium		**0.0001**	
Vanadium	**0.0400**	**0.0403**	**101**
Zinc	**0.0200**	**0.0213**	**106**
Calcium	*60.0*	*60.1*	*100*
Iron	*50.0*	*49.7*	*99*
Magnesium	*20.0*	*20.4*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.457*	*114*
Phosphorus	*20.0*	*21.4*	*107*
Potassium	*20.0*	*20.1*	*101*
Strontium		*-0.0010*	
Tin		*0.0001*	
Titanium	*0.400*	*0.409*	*102*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Lab Sample ID: ICSAB 580-96277/11 Instrument ID: SEA044

Lab File ID: 015SMPL.D ICS Source: ICPMS-ICSB_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Aluminum	**20.0**	**19.6**	**98**
Antimony		**0.0001**	
Arsenic	**0.0200**	**0.0217**	**108**
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0214**	**107**
Chromium	**0.0400**	**0.0407**	**102**
Cobalt	**0.0400**	**0.0402**	**100**
Copper	**0.0400**	**0.0410**	**102**
Lead		**0.0001**	
Manganese	**0.0400**	**0.0410**	**103**
Nickel	**0.0400**	**0.0417**	**104**
Selenium	**0.0200**	**0.0216**	**108**
Silver	**0.0100**	**0.0103**	**103**
Sodium	**50.0**	**51.6**	**103**
Thallium		**0.0001**	
Vanadium	**0.0400**	**0.0403**	**101**
Zinc	**0.0200**	**0.0213**	**106**
Calcium	*60.0*	*60.1*	*100*
Iron	*50.0*	*49.7*	*99*
Magnesium	*20.0*	*20.4*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.457*	*114*
Phosphorus	*20.0*	*21.4*	*107*
Potassium	*20.0*	*20.1*	*101*
Strontium		*-0.0010*	
Tin		*0.0001*	
Titanium	*0.400*	*0.409*	*102*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: 76 S-2 0-6 MS
Lab ID: 580-28720-1 MS
Lab Name: TestAmerica Seattle
Job No.: 580-28720-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 93.1

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	53400		58000		1090	-405	80-120	4	6010B
Potassium	1250		400		993	85	80-120		6010B
Calcium	1950		1000		993	95	80-120		6010B
Magnesium	1270		440		993	83	80-120		6010B
Aluminum	1590		1300	J	199	142	80-120	4	6020
Antimony	392		300		149	62	80-120	F	6020
Arsenic	8230		8600		199	-199	80-120	4	6020
Beryllium	5.42		ND		4.97	109	80-120		6020
Cadmium	15.4		9.9	J	4.97	110	80-120		6020
Chromium	21.4		ND		19.9	108	80-120		6020
Copper	182		180		24.8	17	80-120	4	6020
Lead	1020		1000		49.7	28	80-120	4	6020
Manganese	4250		4800		49.7	-1048	80-120	4	6020
Nickel	52.7		ND		49.7	106	80-120		6020
Selenium	201		ND		199	101	80-120		6020
Silver	40.0		11	J	29.8	97	80-120		6020
Thallium	210		ND		199	106	80-120		6020
Zinc	1690		1800		49.7	-286	80-120	4	6020
Sodium	1030		ND		993	104	80-120		6020
Barium	217		13	J	199	103	80-120		6020
Vanadium	64.5		ND		49.7	130	80-120	F	6020
Cobalt	66.8		15	J	49.7	104	80-120		6020
Mercury	1.24		1.2		0.176	3	80-120	4	7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: 76-2 MS | Lab ID: 580-28720-18 MS

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 90.7

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	26600		25000		1170	155	80-120	4	6010B
Potassium	1550		700		1060	80	80-120		6010B
Calcium	3140		1900		1060	113	80-120		6010B
Magnesium	7360		6500		1060	82	80-120	4	6010B
Aluminum	14700		14000		213	442	80-120	4	6020
Antimony	91.7		20		160	45	80-120	F	6020
Arsenic	643		430		213	102	80-120		6020
Beryllium	6.34		0.31		5.32	113	80-120		6020
Cadmium	6.77		1.0		5.32	108	80-120		6020
Chromium	47.3		26		21.3	101	80-120		6020
Copper	60.8		27		26.6	125	80-120	F	6020
Lead	236		170		53.2	125	80-120	F	6020
Manganese	1520		1400		53.2	200	80-120	4	6020
Nickel	77.6		20		53.2	108	80-120		6020
Selenium	231		0.56	J	213	108	80-120		6020
Silver	35.6		1.4		31.9	107	80-120		6020
Thallium	250		0.31	J	213	117	80-120		6020
Zinc	311		210		53.2	198	80-120	F	6020
Sodium	1480		250		1060	115	80-120		6020
Barium	285		43		213	113	80-120		6020
Vanadium	105		48		53.2	107	80-120		6020
Cobalt	71.6		13		53.2	109	80-120		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: W-22 MS | Lab ID: 580-28720-19 MS

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 64.2

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.458		0.24		0.251	88	80-120		7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: G-11 MS | Lab ID: 580-28720-35 MS

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

% Solids: 76.7

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	38100		34000		1380	273	80-120	4	6010B
Potassium	2740		1300		1260	117	80-120		6010B
Calcium	3950		1800		1260	170	80-120	F	6010B
Magnesium	6930		5300		1260	127	80-120	4	6010B
Aluminum	21200		17000		251	1651	80-120	4	6020
Antimony	122		8.2		188	60	80-120	F	6020
Arsenic	512		230		251	112	80-120		6020
Beryllium	7.63		0.16	J	6.28	119	80-120		6020
Cadmium	7.97		0.78		6.28	114	80-120		6020
Chromium	40.8		11		25.1	119	80-120		6020
Copper	185		140		31.4	151	80-120	4	6020
Lead	162		88		62.8	118	80-120		6020
Manganese	1300		1300		62.8	-35	80-120	4	6020
Nickel	81.1		8.2		62.8	116	80-120		6020
Selenium	282		1.2		251	112	80-120		6020
Silver	43.9		1.9		37.7	111	80-120		6020
Thallium	300		0.31	J	251	119	80-120		6020
Zinc	193		160		62.8	49	80-120	F	6020
Sodium	2240		390		1260	148	80-120	F	6020
Barium	353		52		251	120	80-120		6020
Vanadium	158		79		62.8	125	80-120	F	6020
Cobalt	96.5		19		62.8	124	80-120	F	6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: G-6 MS
Lab ID: 580-28720-36 MS
Lab Name: TestAmerica Seattle
Job No.: 580-28720-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 68.5

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Mercury	0.475		0.23		0.234	104	80-120		7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: 76 S-2 0-6 MSD
Lab ID: 580-28720-1 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-28720-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 93.1

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	58400		1120	51	80-120	9	20	4	6010B
Potassium	1340		1020	92	80-120	7	20		6010B
Calcium	2010		1020	98	80-120	3	20		6010B
Magnesium	1310		1020	85	80-120	4	20		6010B
Aluminum	1790		204	233	80-120	12	20	4	6020
Antimony	438		153	90	80-120	11	20		6020
Arsenic	10100		204	744	80-120	21	20	4 F	6020
Beryllium	5.90		5.11	115	80-120	8	20		6020
Cadmium	16.2		5.11	124	80-120	5	20	F	6020
Chromium	22.8		20.4	111	80-120	6	20		6020
Copper	388		25.6	824	80-120	72	20	4 F	6020
Lead	1510		51.1	995	80-120	39	20	4 F	6020
Manganese	4820		51.1	89	80-120	12	20	4	6020
Nickel	57.7		51.1	113	80-120	9	20		6020
Selenium	215		204	105	80-120	7	20		6020
Silver	49.6		30.7	126	80-120	21	20	F	6020
Thallium	227		204	111	80-120	8	20		6020
Zinc	1910		51.1	144	80-120	12	20	4	6020
Sodium	1080		1020	105	80-120	4	20		6020
Barium	237		204	110	80-120	9	20		6020
Vanadium	69.2		51.1	135	80-120	7	20	F	6020
Cobalt	72.5		51.1	112	80-120	8	20		6020
Mercury	1.24		0.173	7	80-120	1	20	4	7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: 76-2 MSD
Lab ID: 580-28720-18 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-28720-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 90.7

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	26700		1150	163	80-120	0	20	4	6010B
Potassium	1510		1050	77	80-120	3	20	F	6010B
Calcium	3080		1050	108	80-120	2	20		6010B
Magnesium	7540		1050	99	80-120	2	20	4	6010B
Aluminum	15000		210	591	80-120	2	20	4	6020
Antimony	99.0		157	50	80-120	8	20	F	6020
Arsenic	661		210	112	80-120	3	20		6020
Beryllium	6.47		5.25	117	80-120	2	20		6020
Cadmium	6.48		5.25	104	80-120	4	20		6020
Chromium	49.6		21.0	113	80-120	5	20		6020
Copper	58.1		26.2	117	80-120	4	20		6020
Lead	230		52.5	116	80-120	3	20		6020
Manganese	1430		52.5	29	80-120	6	20	4	6020
Nickel	78.9		52.5	112	80-120	2	20		6020
Selenium	233		210	110	80-120	1	20		6020
Silver	35.4		31.5	108	80-120	0	20		6020
Thallium	248		210	118	80-120	1	20		6020
Zinc	266		52.5	115	80-120	16	20		6020
Sodium	1450		1050	115	80-120	2	20		6020
Barium	283		210	114	80-120	1	20		6020
Vanadium	106		52.5	109	80-120	0	20		6020
Cobalt	71.3		52.5	110	80-120	0	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: W-22 MSD
Lab ID: 580-28720-19 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-28720-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 64.2

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.448		0.232	92	80-120	2	20		7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: G-11 MSD
Lab ID: 580-28720-35 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-28720-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 76.7

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	36500		1360	164	80-120	4	20	4	6010B
Potassium	2480		1230	99	80-120	10	20		6010B
Calcium	3740		1230	156	80-120	5	20	F	6010B
Magnesium	6340		1230	81	80-120	9	20	4	6010B
Aluminum	21000		247	1602	80-120	1	20	4	6020
Antimony	119		185	60	80-120	2	20	F	6020
Arsenic	537		247	124	80-120	5	20	F	6020
Beryllium	7.51		6.17	119	80-120	2	20		6020
Cadmium	8.21		6.17	120	80-120	3	20		6020
Chromium	39.4		24.7	116	80-120	3	20		6020
Copper	188		30.8	162	80-120	1	20	4	6020
Lead	161		61.7	118	80-120	1	20		6020
Manganese	1180		61.7	-226	80-120	9	20	4	6020
Nickel	82.9		61.7	121	80-120	2	20	F	6020
Selenium	285		247	115	80-120	1	20		6020
Silver	44.4		37.0	115	80-120	1	20		6020
Thallium	297		247	120	80-120	1	20		6020
Zinc	194		61.7	52	80-120	1	20	F	6020
Sodium	2130		1230	141	80-120	5	20	F	6020
Barium	349		247	120	80-120	1	20		6020
Vanadium	151		61.7	117	80-120	4	20		6020
Cobalt	88.3		61.7	113	80-120	9	20		6020

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: G-6 MSD
Lab ID: 580-28720-36 MSD
Lab Name: TestAmerica Seattle
Job No.: 580-28720-1
SDG No.:
Matrix: Solid
Concentration Units: mg/Kg
% Solids: 68.5

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.461		0.224	102	80-120	3	20		7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: 76 S-2 0-6 PDS | Lab ID: 580-28720-1 PDS

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	56200		58000		1060	NC	75-125		6010B
Potassium	1410		400		959	105			6010B
Calcium	1890		1000		959	92			6010B
Magnesium	1310		440		959	90	75-125		6010B
Aluminum	2840		1300	J	192	799	75-125	W	6020
Antimony	446		300		144	101	75-125		6020
Arsenic	8890		8600		192	NC	75-125		6020
Beryllium	5.48		ND		4.80	114	75-125		6020
Cadmium	15.7		9.9	J	4.80	120	75-125		6020
Chromium	22.2		ND		19.2	116	75-125		6020
Copper	197		180		24.0	83	75-125		6020
Lead	1080		1000		48.0	NC	75-125		6020
Manganese	4720		4800		48.0	NC	75-125		6020
Nickel	54.9		ND		48.0	114	75-125		6020
Selenium	207		ND		192	108	75-125		6020
Silver	43.6		11	J	28.8	113	75-125		6020
Thallium	219		ND		192	114	75-125		6020
Zinc	1790		1800		48.0	NC	75-125		6020
Sodium	1100		ND		959	114	75-125		6020
Barium	230		13	J	192	113	75-125		6020
Vanadium	68.9		ND		48.0	144	75-125	W	6020
Cobalt	70.8		15	J	48.0	116	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: 76-2 PDS | Lab ID: 580-28720-18 PDS

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	25100		25000		1180	NC	75-125		6010B
Potassium	1650		700		1070	89			6010B
Calcium	2770		1900		1070	77			6010B
Magnesium	7060		6500		1070	53	75-125	W	6010B
Aluminum	13900		14000		215	NC	75-125		6020
Antimony	204		20		161	114	75-125		6020
Arsenic	634		430		215	97	75-125		6020
Beryllium	6.81		0.31		5.36	121	75-125		6020
Cadmium	7.04		1.0		5.36	112	75-125		6020
Chromium	48.7		26		21.5	106	75-125		6020
Copper	57.3		27		26.8	111	75-125		6020
Lead	227		170		53.6	109	75-125		6020
Manganese	1450		1400		53.6	NC	75-125		6020
Nickel	80.8		20		53.6	113	75-125		6020
Selenium	244		0.56	J	215	114	75-125		6020
Silver	38.0		1.4		32.2	114	75-125		6020
Thallium	260		0.31	J	215	121	75-125		6020
Zinc	256		210		53.6	95	75-125		6020
Sodium	1460		250		1070	113	75-125		6020
Barium	296		43		215	118	75-125		6020
Vanadium	105		48		53.6	106	75-125		6020
Cobalt	73.4		13		53.6	112	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: G-11 PDS | Lab ID: 580-28720-35 PDS

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

Matrix: Solid | Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Iron	33500		34000		1430	NC	75-125		6010B
Potassium	2420		1300		1300	89			6010B
Calcium	2900		1800		1300	83			6010B
Magnesium	6130		5300		1300	61	75-125	W	6010B
Aluminum	17400		17000		260	NC	75-125		6020
Antimony	225		8.2		195	111	75-125		6020
Arsenic	521		230		260	112	75-125		6020
Beryllium	7.63		0.16	J	6.49	115	75-125		6020
Cadmium	8.20		0.78		6.49	114	75-125		6020
Chromium	39.4		11		26.0	110	75-125		6020
Copper	169		140		32.5	95	75-125		6020
Lead	163		88		64.9	116	75-125		6020
Manganese	1420		1300		64.9	NC	75-125		6020
Nickel	82.6		8.2		64.9	115	75-125		6020
Selenium	294		1.2		260	113	75-125		6020
Silver	45.0		1.9		39.0	111	75-125		6020
Thallium	302		0.31	J	260	116	75-125		6020
Zinc	230		160		64.9	104	75-125		6020
Sodium	1890		390		1300	115	75-125		6020
Barium	348		52		260	114	75-125		6020
Vanadium	147		79		64.9	105	75-125		6020
Cobalt	91.1		19		64.9	112	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: 76 S-2 0-6 DU | Lab ID: 580-28720-1 DU

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

% Solids for Sample: 93.1 | % Solids for Duplicate: 93.1

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Iron	10	58000		57000		1		6010B
Potassium	170	400		349		13		6010B
Calcium	57	1000		1010		0.7		6010B
Magnesium	57	440		473		7		6010B
Aluminum	31	1300	J	1330		2		6020
Antimony	0.21	300		326		8		6020
Arsenic	0.51	8600		9420		9		6020
Beryllium	0.21	ND		0.181	J	NC		6020
Cadmium	0.21	9.9	J	10.9		9		6020
Chromium	0.21	ND		0.746		NC		6020
Copper	0.21	180		176		0.9		6020
Lead	0.21	1000		1110		10		6020
Manganese	0.51	4800		4960		4		6020
Nickel	0.21	ND		3.45		NC		6020
Selenium	0.72	ND		0.317	J	NC		6020
Silver	0.21	11	J	12.3		11		6020
Thallium	0.51	ND		0.498	J	NC		6020
Zinc	0.72	1800		1940		6		6020
Sodium	100	ND		ND		NC		6020
Barium	0.21	13	J	13.3		5		6020
Vanadium	0.72	ND		12.2		NC		6020
Cobalt	0.21	15	J	15.7		3		6020
Mercury	0.17	1.2		1.02		19		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: 76-2 DU | Lab ID: 580-28720-18 DU

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

% Solids for Sample: 90.7 | % Solids for Duplicate: 90.7

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Iron	11	25000		25300		2		6010B
Potassium	180	700		704		1		6010B
Calcium	58	1900		1990		2		6010B
Magnesium	58	6500		6690		3		6010B
Aluminum	32	14000		13700		0.3		6020
Antimony	0.21	20		19.8		0.3		6020
Arsenic	0.53	430		428		0.3		6020
Beryllium	0.21	0.31		0.331		6		6020
Cadmium	0.21	1.0		0.964		6		6020
Chromium	0.21	26		26.0		0.6		6020
Copper	0.21	27		27.5		0.3		6020
Lead	0.21	170		170		0.5		6020
Manganese	0.53	1400		1430		2		6020
Nickel	0.21	20		20.2		0.6		6020
Selenium	0.74	0.56	J	0.589	J	5		6020
Silver	0.21	1.4		1.44		2		6020
Thallium	0.53	0.31	J	0.304	J	3		6020
Zinc	0.74	210		205		0.2		6020
Sodium	110	250		235		5		6020
Barium	0.21	43		43.6		0.6		6020
Vanadium	0.74	48		48.3		0.1		6020
Cobalt	0.21	13		13.5		0.4		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: W-22 DU | Lab ID: 580-28720-19 DU

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

% Solids for Sample: 64.2 | % Solids for Duplicate: 64.2

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.025	0.24		0.218		8		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: G-11 DU | Lab ID: 580-28720-35 DU

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

% Solids for Sample: 76.7 | % Solids for Duplicate: 76.7

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Iron	12	34000		34400		0.4		6010B
Potassium	200	1300		1210		4		6010B
Calcium	68	1800		1970		8		6010B
Magnesium	68	5300		4940		8		6010B
Aluminum	37	17000		16300		4		6020
Antimony	0.25	8.2		7.90		3		6020
Arsenic	0.62	230		223		4		6020
Beryllium	0.25	0.16	J	0.175	J	7		6020
Cadmium	0.25	0.78		0.739		6		6020
Chromium	0.25	11		10.6		4		6020
Copper	0.25	140		133		4		6020
Lead	0.25	88		83.7		5		6020
Manganese	0.62	1300		1270		4		6020
Nickel	0.25	8.2		7.86		4		6020
Selenium	0.87	1.2		1.01		15		6020
Silver	0.25	1.9		1.81		4		6020
Thallium	0.62	0.31	J	0.291	J	8		6020
Zinc	0.87	160		155		4		6020
Sodium	120	390		384		1		6020
Barium	0.25	52		50.0		5		6020
Vanadium	0.87	79		77.9		2		6020
Cobalt	0.25	19		17.9		3		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: G-6 DU | Lab ID: 580-28720-36 DU

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG No.:

% Solids for Sample: 68.5 | % Solids for Duplicate: 68.5

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Mercury	0.023	0.23		0.219		6		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95937/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Iron	1100	1090		99	80	120		6010B
Potassium	1000	957		96	80	120		6010B
Calcium	1000	996		100	80	120		6010B
Magnesium	1000	977		98	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95937/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	1260		1100	115	80-120	14	20		6010B
Potassium	984		1000	98	80-120	3	20		6010B
Calcium	1030		1000	103	80-120	4	20		6010B
Magnesium	1050		1000	105	80-120	8	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95937/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Iron	13100	9720		74	41.6	159.1		6010B
Potassium	2770	2010		72	65.0	135.0		6010B
Calcium	6700	6700		100	75.4	124.0		6010B
Magnesium	2980	2320		78	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-96028/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Iron	1100	1030		94	80	120		6010B
Potassium	1000	999		100	80	120		6010B
Calcium	1000	1010		101	80	120		6010B
Magnesium	1000	941		94	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-96028/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	1010		1100	92	80-120	2	20		6010B
Potassium	1020		1000	102	80-120	2	20		6010B
Calcium	1000		1000	100	80-120	0	20		6010B
Magnesium	936		1000	94	80-120	1	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-96028/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Iron	13100	11300		86	41.6	159.1		6010B
Potassium	2770	2650		96	65.0	135.0		6010B
Calcium	6700	6960		104	75.4	124.0		6010B
Magnesium	2980	2720		91	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-96039/13-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Iron	1100	1100		100	80	120		6010B
Potassium	1000	1010		101	80	120		6010B
Calcium	1000	1010		101	80	120		6010B
Magnesium	1000	989		99	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-96039/14-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Iron	1100		1100	100	80-120	0	20		6010B
Potassium	1010		1000	101	80-120	0	20		6010B
Calcium	1010		1000	101	80-120	0	20		6010B
Magnesium	1000		1000	100	80-120	2	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-96039/15-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Iron	13100	13100		100	41.6	159.1		6010B
Potassium	2770	2510		91	65.0	135.0		6010B
Calcium	6700	6690		100	75.4	124.0		6010B
Magnesium	2980	2860		96	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95937/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	200	203		102	80	120		6020
Antimony	150	152		102	80	120		6020
Arsenic	200	209		104	80	120		6020
Beryllium	5.00	5.12		102	80	120		6020
Cadmium	5.00	5.62		112	80	120		6020
Chromium	20.0	21.9		110	80	120		6020
Copper	25.0	27.0		108	80	120		6020
Lead	50.0	55.6		111	80	120		6020
Manganese	50.0	55.0		110	80	120		6020
Nickel	50.0	51.5		103	80	120		6020
Selenium	200	206		103	80	120		6020
Silver	30.0	32.3		108	80	120		6020
Thallium	200	216		108	80	120		6020
Zinc	50.0	53.9		108	80	120		6020
Sodium	1000	1050		105	80	120		6020
Barium	200	211		106	80	120		6020
Vanadium	50.0	56.8		114	80	120		6020
Cobalt	50.0	55.4		111	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95937/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	215		200	108	80-120	6	20		6020
Antimony	152		150	101	80-120	0	20		6020
Arsenic	207		200	104	80-120	1	20		6020
Beryllium	5.42		5.00	108	80-120	6	20		6020
Cadmium	5.49		5.00	110	80-120	2	20		6020
Chromium	21.5		20.0	108	80-120	2	20		6020
Copper	27.5		25.0	110	80-120	2	20		6020
Lead	55.9		50.0	112	80-120	0	20		6020
Manganese	55.3		50.0	111	80-120	1	20		6020
Nickel	51.3		50.0	103	80-120	0	20		6020
Selenium	207		200	103	80-120	0	20		6020
Silver	31.9		30.0	106	80-120	1	20		6020
Thallium	214		200	107	80-120	1	20		6020
Zinc	52.1		50.0	104	80-120	3	20		6020
Sodium	1100		1000	110	80-120	4	20		6020
Barium	208		200	104	80-120	2	20		6020
Vanadium	54.9		50.0	110	80-120	4	20		6020
Cobalt	56.1		50.0	112	80-120	1	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95937/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	9780	8350		85	46.0	153.8		6020
Antimony	121	215		178	21.0	251.6		6020
Arsenic	109	110		101	71.1	128.9		6020
Beryllium	92.1	89.6		97	75.3	124.7		6020
Cadmium	110	114		103	73.2	126.8		6020
Chromium	93.4	95.5		102	69.9	129.8		6020
Copper	84.7	72.8		86	73.2	126.8		6020
Lead	152	170		112	75.3	125.1		6020
Manganese	443	462		104	75.8	124.5		6020
Nickel	109	112		103	73.8	126.7		6020
Selenium	207	208		101	67.1	132.7		6020
Silver	51.9	52.5		101	65.6	134.4		6020
Thallium	171	182		106	68.8	131.2		6020
Zinc	299	300		100	72.2	127.8		6020
Sodium	724	690		95	52.0	148.0		6020
Barium	325	320		99	74.7	125.5		6020
Vanadium	110	117		107	64.5	135.3		6020
Cobalt	133	143		108	74.5	126.1		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-96039/13-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	200	198		99	80	120		6020
Antimony	150	147		98	80	120		6020
Arsenic	200	205		103	80	120		6020
Beryllium	5.00	5.24		105	80	120		6020
Cadmium	5.00	5.00		100	80	120		6020
Chromium	20.0	19.9		100	80	120		6020
Copper	25.0	26.1		104	80	120		6020
Lead	50.0	50.6		101	80	120		6020
Manganese	50.0	51.8		104	80	120		6020
Nickel	50.0	51.5		103	80	120		6020
Selenium	200	199		99	80	120		6020
Silver	30.0	30.6		102	80	120		6020
Thallium	200	208		104	80	120		6020
Zinc	50.0	51.6		103	80	120		6020
Sodium	1000	1000		100	80	120		6020
Barium	200	203		101	80	120		6020
Vanadium	50.0	49.7		99	80	120		6020
Cobalt	50.0	51.2		102	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-96039/14-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	192		200	96	80-120	3	20		6020
Antimony	147		150	98	80-120	0	20		6020
Arsenic	206		200	103	80-120	0	20		6020
Beryllium	5.37		5.00	107	80-120	2	20		6020
Cadmium	5.37		5.00	107	80-120	7	20		6020
Chromium	19.9		20.0	99	80-120	0	20		6020
Copper	26.6		25.0	106	80-120	2	20		6020
Lead	50.2		50.0	100	80-120	1	20		6020
Manganese	51.4		50.0	103	80-120	1	20		6020
Nickel	51.8		50.0	104	80-120	1	20		6020
Selenium	201		200	101	80-120	1	20		6020
Silver	30.5		30.0	102	80-120	0	20		6020
Thallium	208		200	104	80-120	0	20		6020
Zinc	50.7		50.0	101	80-120	2	20		6020
Sodium	994		1000	99	80-120	1	20		6020
Barium	202		200	101	80-120	0	20		6020
Vanadium	49.5		50.0	99	80-120	0	20		6020
Cobalt	50.9		50.0	102	80-120	1	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-96039/15-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	9780	7980		82	46.0	153.8		6020
Antimony	121	229		190	21.0	251.6		6020
Arsenic	109	117		107	71.1	128.9		6020
Beryllium	92.1	95.7		104	75.3	124.7		6020
Cadmium	110	118		107	73.2	126.8		6020
Chromium	93.4	96.9		104	69.9	129.8		6020
Copper	84.7	77.4		91	73.2	126.8		6020
Lead	152	172		113	75.3	125.1		6020
Manganese	443	505		114	75.8	124.5		6020
Nickel	109	118		109	73.8	126.7		6020
Selenium	207	225		109	67.1	132.7		6020
Silver	51.9	53.1		102	65.6	134.4		6020
Thallium	171	192		112	68.8	131.2		6020
Zinc	299	320		107	72.2	127.8		6020
Sodium	724	757		104	52.0	148.0		6020
Barium	325	344		106	74.7	125.5		6020
Vanadium	110	116		106	64.5	135.3		6020
Cobalt	133	154		116	74.5	126.1		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-96028/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	200	188		94	80	120		6020
Antimony	150	146		98	80	120		6020
Arsenic	200	204		102	80	120		6020
Beryllium	5.00	5.24		105	80	120		6020
Cadmium	5.00	5.04		101	80	120		6020
Chromium	20.0	19.8		99	80	120		6020
Copper	25.0	25.8		103	80	120		6020
Lead	50.0	49.9		100	80	120		6020
Manganese	50.0	52.1		104	80	120		6020
Nickel	50.0	50.1		100	80	120		6020
Selenium	200	200		100	80	120		6020
Silver	30.0	30.2		101	80	120		6020
Thallium	200	206		103	80	120		6020
Zinc	50.0	51.2		102	80	120		6020
Sodium	1000	973		97	80	120		6020
Barium	200	203		102	80	120		6020
Vanadium	50.0	49.5		99	80	120		6020
Cobalt	50.0	50.7		101	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-96028/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	189		200	94	80-120	0	20		6020
Antimony	147		150	98	80-120	0	20		6020
Arsenic	205		200	103	80-120	0	20		6020
Beryllium	5.11		5.00	102	80-120	3	20		6020
Cadmium	4.98		5.00	100	80-120	1	20		6020
Chromium	19.8		20.0	99	80-120	0	20		6020
Copper	25.9		25.0	103	80-120	0	20		6020
Lead	49.5		50.0	99	80-120	1	20		6020
Manganese	52.2		50.0	104	80-120	0	20		6020
Nickel	50.3		50.0	101	80-120	0	20		6020
Selenium	200		200	100	80-120	0	20		6020
Silver	30.2		30.0	101	80-120	0	20		6020
Thallium	211		200	105	80-120	2	20		6020
Zinc	51.0		50.0	102	80-120	0	20		6020
Sodium	975		1000	97	80-120	0	20		6020
Barium	203		200	101	80-120	0	20		6020
Vanadium	49.4		50.0	99	80-120	0	20		6020
Cobalt	51.4		50.0	103	80-120	1	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-96028/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	9780	7700		79	46.0	153.8		6020
Antimony	121	230		190	21.0	251.6		6020
Arsenic	109	115		106	71.1	128.9		6020
Beryllium	92.1	95.2		103	75.3	124.7		6020
Cadmium	110	118		107	73.2	126.8		6020
Chromium	93.4	93.8		100	69.9	129.8		6020
Copper	84.7	74.8		88	73.2	126.8		6020
Lead	152	171		113	75.3	125.1		6020
Manganese	443	491		111	75.8	124.5		6020
Nickel	109	115		105	73.8	126.7		6020
Selenium	207	221		107	67.1	132.7		6020
Silver	51.9	52.7		102	65.6	134.4		6020
Thallium	171	192		112	68.8	131.2		6020
Zinc	299	314		105	72.2	127.8		6020
Sodium	724	713		99	52.0	148.0		6020
Barium	325	347		107	74.7	125.5		6020
Vanadium	110	113		103	64.5	135.3		6020
Cobalt	133	148		112	74.5	126.1		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-95932/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: Hg_SPK_WORK_00008

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.176		106	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-95932/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: Hg_SPK_WORK_00008

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.190		0.167	114	80-120	8	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-95932/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	22.3		137	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-96254/22-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.160		96	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-96254/23-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.157		0.167	94	80-120	1	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-96254/24-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	18.4		113	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-96255/13-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.161		97	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-96255/14-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00008

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.165		0.167	99	80-120	2	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-96255/15-A

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	17.0		104	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28720-1

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28720-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	70000		67600		3.3		6010B
Potassium	ND		362	J	NC		6010B
Calcium	1300	J	1110		12		6010B
Magnesium	520	J	492		4.9		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28720-18

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28720-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	28000		26500		7.0		6010B
Potassium	ND		618	J	NC		6010B
Calcium	2400	J	2080		14		6010B
Magnesium	7300		6820		6.7		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28720-35

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28720-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Iron	35000		35700		2.3		6010B
Potassium	ND		1240		37		6010B
Calcium	1800	J	1850		1.4		6010B
Magnesium	5700	J	5540		2.5		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28720-1

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28720-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	1300	J	1210		8.0		6020
Antimony	300		288		3.8		6020
Arsenic	8600		8640		0.24		6020
Beryllium	ND		0.237	J	NC		6020
Cadmium	9.9	J	10.1		1.7		6020
Chromium	ND		0.820	J	NC		6020
Copper	180		168		5.1		6020
Lead	1000		1010		0.29		6020
Manganese	4800		4670		2.2		6020
Nickel	ND		1.20		NC		6020
Selenium	ND		ND		NC		6020
Silver	11	J	11.3		2.3		6020
Thallium	ND		0.662	J	NC		6020
Zinc	1800		1740		4.8		6020
Sodium	ND		ND		NC		6020
Barium	13	J	11.9		5.6		6020
Vanadium	ND		12.0		NC		6020
Cobalt	15	J	15.3		0.24		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28720-18

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28720-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	14000		14700		7.0		6020
Antimony	20		19.9		0.57		6020
Arsenic	430		414		3.0		6020
Beryllium	0.31		0.310	J	NC		6020
Cadmium	1.0		0.897	J	12	V	6020
Chromium	26		26.6		2.9		6020
Copper	27		28.2		3.0		6020
Lead	170		176		4.1		6020
Manganese	1400		1510		6.7		6020
Nickel	20		20.6		1.4		6020
Selenium	0.56	J	ND		NC		6020
Silver	1.4		1.49		5.3		6020
Thallium	0.31	J	0.745	J	NC		6020
Zinc	210		211		2.6		6020
Sodium	250		247	J	NC		6020
Barium	43		43.5		0.37		6020
Vanadium	48		49.3		2.0		6020
Cobalt	13		13.9		3.4		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-28720-35

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-28720-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	17000		17700		4.1		6020
Antimony	8.2		8.22		0.64		6020
Arsenic	230		231		0.06		6020
Beryllium	0.16	J	0.237	J	NC		6020
Cadmium	0.78		0.811	J	3.4		6020
Chromium	11		11.1		1.0		6020
Copper	140		138		0.24		6020
Lead	88		90.0		2.5		6020
Manganese	1300		1360		2.8		6020
Nickel	8.2		8.36		NC		6020
Selenium	1.2		1.48	J	NC		6020
Silver	1.9		1.92		1.4		6020
Thallium	0.31	J	ND		NC		6020
Zinc	160		165		1.9		6020
Sodium	390		388	J	NC		6020
Barium	52		52.0		0.77		6020
Vanadium	79		78.0		1.6		6020
Cobalt	19		18.9		1.7		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B MDL Date: 08/12/2011 13:02

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Calcium		55	3.1
Iron		10	0.61
Magnesium		55	3.2
Potassium		165	16

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B XMDL Date: 11/02/2010 08:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Calcium		1.1	0.028
Iron		0.2	0.032
Magnesium		1.1	0.23
Potassium		3.3	0.41

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: SEA026

Method: 6020 MDL Date: 08/17/2011 07:36

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Aluminum		30	3
Antimony		0.2	0.042
Arsenic		0.5	0.18
Barium		0.2	0.03
Beryllium		0.2	0.022
Cadmium		0.2	0.008
Chromium		0.2	0.113
Cobalt		0.2	0.019
Copper		0.2	0.098
Lead		0.2	0.013
Manganese		0.5	0.17
Nickel		0.2	0.203
Selenium		0.7	0.202
Silver		0.2	0.012
Sodium		100	39.2
Thallium		0.5	0.13
Vanadium		0.7	0.473
Zinc		0.7	1.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: SEA026

Method: 6020 XMDL Date: 06/24/2011 10:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Aluminum		0.08	0.06
Antimony		0.0004	0.00008
Arsenic		0.001	0.00075
Barium		0.0012	0.000054
Beryllium		0.0004	0.0001
Cadmium		0.0004	0.000028
Chromium		0.0004	0.00027
Cobalt		0.0004	0.00004
Copper		0.001	0.000196
Lead		0.0004	0.00004
Manganese		0.001	0.0004
Nickel		0.003	0.0004
Selenium		0.0014	0.00071
Silver		0.0004	0.00003
Sodium		10	10
Thallium		0.001	0.00028
Vanadium		0.002	0.000975
Zinc		0.0014	0.0007

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 MDL Date: 08/17/2011 07:36

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Aluminum		30	3
Antimony		0.2	0.042
Arsenic		0.5	0.18
Barium		0.2	0.03
Beryllium		0.2	0.022
Cadmium		0.2	0.008
Chromium		0.2	0.113
Cobalt		0.2	0.019
Copper		0.2	0.098
Lead		0.2	0.013
Manganese		0.5	0.17
Nickel		0.2	0.203
Selenium		0.7	0.202
Silver		0.2	0.012
Sodium		100	39.2
Thallium		0.5	0.13
Vanadium		0.7	0.473
Zinc		0.7	1.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 XMDL Date: 06/24/2011 10:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Aluminum		0.08	0.06
Antimony		0.0004	0.00008
Arsenic		0.001	0.00075
Barium		0.0012	0.000054
Beryllium		0.0004	0.0001
Cadmium		0.0004	0.000028
Chromium		0.0004	0.00027
Cobalt		0.0004	0.00004
Copper		0.001	0.000196
Lead		0.0004	0.00004
Manganese		0.001	0.0004
Nickel		0.003	0.0004
Selenium		0.0014	0.00071
Silver		0.0004	0.00003
Sodium		10	10
Thallium		0.001	0.00028
Vanadium		0.002	0.000975
Zinc		0.0014	0.0007

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A MDL Date: 06/06/2011 08:38

Prep Method: 7471A

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury		0.02	0.0063

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A XMDL Date: 10/02/2008 10:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (ug/L)
Mercury		0.0002	0.000041

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-28720-1

SDG No.:

Instrument ID: TAC047 Date: 12/03/2010 07:34

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Iron		250	6010B
Potassium		500	6010B
Calcium		1000	6010B
Magnesium		1000	6010B

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-28720-1

SDG No.:

Instrument ID: SEA026 Date: 03/01/2010 06:52

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Aluminum		4	6020
Antimony		4	6020
Arsenic		4	6020
Beryllium		4	6020
Cadmium		4	6020
Chromium		4	6020
Copper		4	6020
Lead		4	6020
Manganese		4	6020
Nickel		4	6020
Selenium		4	6020
Silver		4	6020
Thallium		4	6020
Zinc		4	6020
Sodium			6020
Barium		4	6020
Vanadium		4	6020
Cobalt		4	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-28720-1

SDG No.:

Instrument ID: SEA044 Date: 03/01/2010 06:51

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Aluminum		5	6020
Antimony		5	6020
Arsenic		5	6020
Beryllium		5	6020
Cadmium		5	6020
Chromium		5	6020
Copper		5	6020
Lead		5	6020
Manganese		5	6020
Nickel		5	6020
Selenium		5	6020
Silver		5	6020
Thallium		5	6020
Zinc		5	6020
Sodium		5	6020
Barium		5	6020
Vanadium		5	6020
Cobalt		5	6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-1	09/22/2011 16:59	95937	1.1195		50
580-28720-1 DU	09/22/2011 16:59	95937	1.0429		50
580-28720-1 MS	09/22/2011 16:59	95937	1.0815		50
580-28720-1 MSD	09/22/2011 16:59	95937	1.0507		50
580-28720-2	09/22/2011 16:59	95937	1.0099		50
580-28720-3	09/22/2011 16:59	95937	1.0418		50
580-28720-4	09/22/2011 16:59	95937	1.0695		50
580-28720-5	09/22/2011 16:59	95937	1.1109		50
580-28720-6	09/22/2011 16:59	95937	1.0597		50
580-28720-7	09/22/2011 16:59	95937	1.0217		50
580-28720-8	09/22/2011 16:59	95937	1.0893		50
580-28720-9	09/22/2011 16:59	95937	1.0238		50
580-28720-10	09/22/2011 16:59	95937	1.0402		50
580-28720-11	09/22/2011 16:59	95937	1.0069		50
580-28720-12	09/22/2011 16:59	95937	1.0129		50
580-28720-13	09/22/2011 16:59	95937	1.0669		50
580-28720-14	09/22/2011 16:59	95937	1.0491		50
580-28720-15	09/22/2011 16:59	95937	1.0835		50
580-28720-16	09/22/2011 16:59	95937	1.0043		50
580-28720-17	09/22/2011 16:59	95937	1.0245		50
MB 580-95937/21-A	09/22/2011 16:59	95937	1.0		50
LCS 580-95937/22-A	09/22/2011 16:59	95937	1.0		50
LCSD 580-95937/23-A	09/22/2011 16:59	95937	1.0		50
LCSSRM 580-95937/24-A	09/22/2011 16:59	95937	0.5041		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-18	09/23/2011 14:50	96028	1.0277		50
580-28720-18 DU	09/23/2011 14:50	96028	1.0375		50
580-28720-18 MS	09/23/2011 14:50	96028	1.0350		50
580-28720-18 MSD	09/23/2011 14:50	96028	1.0500		50
580-28720-19	09/23/2011 14:50	96028	1.0149		50
580-28720-20	09/23/2011 14:50	96028	1.0332		50
580-28720-21	09/23/2011 14:50	96028	1.1052		50
580-28720-22	09/23/2011 14:50	96028	1.0856		50
580-28720-23	09/23/2011 14:50	96028	1.0839		50
580-28720-24	09/23/2011 14:50	96028	1.0595		50
580-28720-25	09/23/2011 14:50	96028	1.1227		50
580-28720-26	09/23/2011 14:50	96028	1.0654		50
580-28720-27	09/23/2011 14:50	96028	1.0378		50
580-28720-28	09/23/2011 14:50	96028	1.1199		50
580-28720-29	09/23/2011 14:50	96028	1.0412		50
580-28720-30	09/23/2011 14:50	96028	1.0549		50
580-28720-31	09/23/2011 14:50	96028	1.1415		50
580-28720-32	09/23/2011 14:50	96028	1.0352		50
580-28720-33	09/23/2011 14:50	96028	1.0037		50
580-28720-34	09/23/2011 14:50	96028	1.1154		50
MB 580-96028/21-A	09/23/2011 14:50	96028	1.0		50
LCS 580-96028/22-A	09/23/2011 14:50	96028	1.0		50
LCSD 580-96028/23-A	09/23/2011 14:50	96028	1.0		50
LCSSRM 580-96028/24-A	09/23/2011 14:50	96028	0.5046		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-35	09/24/2011 14:30	96039	1.0046		50
580-28720-35 DU	09/24/2011 14:30	96039	1.0533		50
580-28720-35 MS	09/24/2011 14:30	96039	1.0382		50
580-28720-35 MSD	09/24/2011 14:30	96039	1.0580		50
580-28720-36	09/24/2011 14:30	96039	1.1423		50
580-28720-37	09/24/2011 14:30	96039	1.0313		50
580-28720-38	09/24/2011 14:30	96039	1.0692		50
580-28720-39	09/24/2011 14:30	96039	1.1180		50
580-28720-40	09/24/2011 14:30	96039	1.1531		50
580-28720-41	09/24/2011 14:30	96039	1.1379		50
580-28720-42	09/24/2011 14:30	96039	1.0146		50
MB 580-96039/12-A	09/24/2011 14:30	96039	1.0		50
LCS 580-96039/13-A	09/24/2011 14:30	96039	1.0		50
LCSD 580-96039/14-A	09/24/2011 14:30	96039	1.0		50
LCSSRM 580-96039/15-A	09/24/2011 14:30	96039	0.5034		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-1	09/22/2011 16:59	95937	1.1195		50
580-28720-1 DU	09/22/2011 16:59	95937	1.0429		50
580-28720-1 MS	09/22/2011 16:59	95937	1.0815		50
580-28720-1 MSD	09/22/2011 16:59	95937	1.0507		50
580-28720-2	09/22/2011 16:59	95937	1.0099		50
580-28720-3	09/22/2011 16:59	95937	1.0418		50
580-28720-4	09/22/2011 16:59	95937	1.0695		50
580-28720-5	09/22/2011 16:59	95937	1.1109		50
580-28720-6	09/22/2011 16:59	95937	1.0597		50
580-28720-7	09/22/2011 16:59	95937	1.0217		50
580-28720-8	09/22/2011 16:59	95937	1.0893		50
580-28720-9	09/22/2011 16:59	95937	1.0238		50
580-28720-10	09/22/2011 16:59	95937	1.0402		50
580-28720-11	09/22/2011 16:59	95937	1.0069		50
580-28720-12	09/22/2011 16:59	95937	1.0129		50
580-28720-13	09/22/2011 16:59	95937	1.0669		50
580-28720-14	09/22/2011 16:59	95937	1.0491		50
580-28720-15	09/22/2011 16:59	95937	1.0835		50
580-28720-16	09/22/2011 16:59	95937	1.0043		50
580-28720-17	09/22/2011 16:59	95937	1.0245		50
MB 580-95937/21-A	09/22/2011 16:59	95937	1.0		50
LCS 580-95937/22-A	09/22/2011 16:59	95937	1.0		50
LCSD 580-95937/23-A	09/22/2011 16:59	95937	1.0		50
LCSSRM 580-95937/24-A	09/22/2011 16:59	95937	0.5041		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-18	09/23/2011 14:50	96028	1.0277		50
580-28720-18 DU	09/23/2011 14:50	96028	1.0375		50
580-28720-18 MS	09/23/2011 14:50	96028	1.0350		50
580-28720-18 MSD	09/23/2011 14:50	96028	1.0500		50
580-28720-19	09/23/2011 14:50	96028	1.0149		50
580-28720-20	09/23/2011 14:50	96028	1.0332		50
580-28720-21	09/23/2011 14:50	96028	1.1052		50
580-28720-22	09/23/2011 14:50	96028	1.0856		50
580-28720-23	09/23/2011 14:50	96028	1.0839		50
580-28720-24	09/23/2011 14:50	96028	1.0595		50
580-28720-25	09/23/2011 14:50	96028	1.1227		50
580-28720-26	09/23/2011 14:50	96028	1.0654		50
580-28720-27	09/23/2011 14:50	96028	1.0378		50
580-28720-28	09/23/2011 14:50	96028	1.1199		50
580-28720-29	09/23/2011 14:50	96028	1.0412		50
580-28720-30	09/23/2011 14:50	96028	1.0549		50
580-28720-31	09/23/2011 14:50	96028	1.1415		50
580-28720-32	09/23/2011 14:50	96028	1.0352		50
580-28720-33	09/23/2011 14:50	96028	1.0037		50
580-28720-34	09/23/2011 14:50	96028	1.1154		50
MB 580-96028/21-A	09/23/2011 14:50	96028	1.0		50
LCS 580-96028/22-A	09/23/2011 14:50	96028	1.0		50
LCSD 580-96028/23-A	09/23/2011 14:50	96028	1.0		50
LCSSRM 580-96028/24-A	09/23/2011 14:50	96028	0.5046		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-35	09/24/2011 14:30	96039	1.0046		50
580-28720-35 DU	09/24/2011 14:30	96039	1.0533		50
580-28720-35 MS	09/24/2011 14:30	96039	1.0382		50
580-28720-35 MSD	09/24/2011 14:30	96039	1.0580		50
580-28720-36	09/24/2011 14:30	96039	1.1423		50
580-28720-37	09/24/2011 14:30	96039	1.0313		50
580-28720-38	09/24/2011 14:30	96039	1.0692		50
580-28720-39	09/24/2011 14:30	96039	1.1180		50
580-28720-40	09/24/2011 14:30	96039	1.1531		50
580-28720-41	09/24/2011 14:30	96039	1.1379		50
580-28720-42	09/24/2011 14:30	96039	1.0146		50
MB 580-96039/12-A	09/24/2011 14:30	96039	1.0		50
LCS 580-96039/13-A	09/24/2011 14:30	96039	1.0		50
LCSD 580-96039/14-A	09/24/2011 14:30	96039	1.0		50
LCSSRM 580-96039/15-A	09/24/2011 14:30	96039	0.5034		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-1	09/22/2011 15:57	95932	0.6333		50
580-28720-1 DU	09/22/2011 15:57	95932	0.6212		50
580-28720-1 MS	09/22/2011 15:57	95932	0.6106		50
580-28720-1 MSD	09/22/2011 15:57	95932	0.6221		50
580-28720-2	09/22/2011 15:57	95932	0.6207		50
580-28720-3	09/22/2011 15:57	95932	0.6403		50
580-28720-4	09/22/2011 15:57	95932	0.6646		50
580-28720-5	09/22/2011 15:57	95932	0.6539		50
580-28720-6	09/22/2011 15:57	95932	0.6819		50
580-28720-7	09/22/2011 15:57	95932	0.6128		50
580-28720-8	09/22/2011 15:57	95932	0.7019		50
580-28720-9	09/22/2011 15:57	95932	0.6320		50
580-28720-10	09/22/2011 15:57	95932	0.6739		50
580-28720-11	09/22/2011 15:57	95932	0.6227		50
580-28720-12	09/22/2011 15:57	95932	0.6137		50
580-28720-13	09/22/2011 15:57	95932	0.7781		50
580-28720-14	09/22/2011 15:57	95932	0.6656		50
580-28720-15	09/22/2011 15:57	95932	0.6693		50
580-28720-16	09/22/2011 15:57	95932	0.6727		50
580-28720-17	09/22/2011 15:57	95932	0.6346		50
MB 580-95932/21-A	09/22/2011 15:57	95932	0.6		50
LCS 580-95932/22-A	09/22/2011 15:57	95932	0.6		50
LCSD 580-95932/23-A	09/22/2011 15:57	95932	0.6		50
LCSSRM 580-95932/24-A	09/22/2011 15:57	95932	0.1011		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-19	09/27/2011 15:47	96254	0.6849		50
580-28720-19 DU	09/27/2011 15:47	96254	0.6209		50
580-28720-19 MS	09/27/2011 15:47	96254	0.6203		50
580-28720-19 MSD	09/27/2011 15:47	96254	0.6720		50
580-28720-20	09/27/2011 15:47	96254	0.7493		50
580-28720-21	09/27/2011 15:47	96254	0.7497		50
580-28720-22	09/27/2011 15:47	96254	0.7575		50
580-28720-23	09/27/2011 15:47	96254	0.6625		50
580-28720-24	09/27/2011 15:47	96254	0.7636		50
580-28720-25	09/27/2011 15:47	96254	0.6641		50
580-28720-26	09/27/2011 15:47	96254	0.6454		50
580-28720-27	09/27/2011 15:47	96254	0.7018		50
580-28720-28	09/27/2011 15:47	96254	0.6628		50
580-28720-29	09/27/2011 15:47	96254	0.6604		50
580-28720-30	09/27/2011 15:47	96254	0.6907		50
580-28720-31	09/27/2011 15:47	96254	0.6653		50
580-28720-32	09/27/2011 15:47	96254	0.6260		50
580-28720-33	09/27/2011 15:47	96254	0.7442		50
580-28720-34	09/27/2011 15:47	96254	0.6376		50
580-28720-35	09/27/2011 15:47	96254	0.6657		50
MB 580-96254/21-A	09/27/2011 15:47	96254	0.6		50
LCS 580-96254/22-A	09/27/2011 15:47	96254	0.6		50
LCSD 580-96254/23-A	09/27/2011 15:47	96254	0.6		50
LCSSRM 580-96254/24-A	09/27/2011 15:47	96254	0.1131		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-28720-36	09/27/2011 16:15	96255	0.6369		50
580-28720-36 DU	09/27/2011 16:15	96255	0.6409		50
580-28720-36 MS	09/27/2011 16:15	96255	0.6245		50
580-28720-36 MSD	09/27/2011 16:15	96255	0.6514		50
580-28720-37	09/27/2011 16:15	96255	0.7924		50
580-28720-38	09/27/2011 16:15	96255	0.8306		50
580-28720-39	09/27/2011 16:15	96255	0.6581		50
580-28720-40	09/27/2011 16:15	96255	0.6998		50
580-28720-41	09/27/2011 16:15	96255	0.6530		50
580-28720-42	09/27/2011 16:15	96255	0.7030		50
580-28720-18	09/27/2011 16:15	96255	0.6475		50
MB 580-96255/12-A	09/27/2011 16:15	96255	0.6		50
LCS 580-96255/13-A	09/27/2011 16:15	96255	0.6		50
LCSD 580-96255/14-A	09/27/2011 16:15	96255	0.6		50
LCSSRM 580-96255/15-A	09/27/2011 16:15	96255	0.0958		50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/24/2011 08:49 End Date: 09/24/2011 23:08

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ca	Fe	K	Mg																	
STD0 580-96078/1 IC			08:49	X	X	X	X																	
STD1 580-96078/2 IC			08:56	X	X	X	X																	
STD2 580-96078/3 IC			09:03	X	X	X	X																	
STD3 580-96078/4 IC			09:09	X	X	X	X																	
STD4 580-96078/5 IC			09:16	X	X	X	X																	
ICV 580-96078/6	1		09:22	X	X	X	X																	
ICB 580-96078/7	1		09:31	X	X	X	X																	
CRI 580-96078/8	1		09:38	X	X	X	X																	
ICSA 580-96078/9	1		09:54	X	X	X	X																	
ICSAB 580-96078/10	1		10:04	X	X	X	X																	
CCV 580-96078/11	1		10:10	X	X	X	X																	
CCB 580-96078/12	1		10:19	X	X	X	X																	
MB 580-95937/21-A	1	T	10:29	X	X	X	X																	
LCS 580-95937/22-A	1	T	10:36	X	X	X	X																	
LCSD 580-95937/23-A	1	T	10:42	X	X	X	X																	
LCSSRM 580-95937/24-A	1	T	10:49	X	X	X	X																	
580-28720-1 SD	5	T	10:56	X	X	X	X																	
580-28720-1	1	T	11:02	X		X	X																	
580-28720-1 DU	1	T	11:09	X	X	X	X																	
580-28720-1 MS	1	T	11:16	X	X	X	X																	
580-28720-1 MSD	1	T	11:23	X	X	X	X																	
580-28720-1 PDS	1	T	11:29	X	X	X	X																	
CCV 580-96078/23	1		11:36	X	X	X	X																	
CCB 580-96078/24	1		11:45	X	X	X	X																	
580-28720-1	100	T	11:54		X																			
580-28720-2	1	T	12:01	X		X	X																	
580-28720-2	100	T	12:08		X																			
580-28720-3	1	T	12:15	X		X	X																	
580-28720-3	100	T	12:22		X																			
580-28720-4	1	T	12:29	X	X	X	X																	
ZZZZZZ			12:36																					
580-28720-5	1	T	12:43	X		X	X																	
580-28720-5	100	T	12:50		X																			
CCV 580-96078/34	1		12:57	X	X	X	X																	
CCB 580-96078/35	1		13:06	X	X	X	X																	
580-28720-6	1	T	13:13	X		X	X																	
580-28720-6	100	T	13:20		X																			
580-28720-7	1	T	13:27	X	X	X	X																	
ZZZZZZ			13:34																					
580-28720-8	1	T	13:41	X		X	X																	
580-28720-8	100	T	13:47		X																			
580-28720-9	1	T	13:54	X	X	X	X																	

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/24/2011 08:49 End Date: 09/24/2011 23:08

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ca	Fe	K	Mg																
ZZZZZZ			14:01																				
580-28720-10	1	T	14:08	X		X	X																
580-28720-10	100	T	14:15		X																		
CCV 580-96078/46	1		14:22	X	X	X	X																
CCB 580-96078/47	1		14:31	X	X	X	X																
580-28720-11	1	T	14:41	X		X	X																
580-28720-11	100	T	14:48		X																		
580-28720-12	1	T	14:55	X		X	X																
580-28720-12	100	T	15:01		X																		
580-28720-13	1	T	15:08	X		X	X																
580-28720-13	100	T	15:15		X																		
580-28720-14	1	T	15:22	X		X	X																
580-28720-14	100	T	15:29		X																		
580-28720-15	1	T	15:36	X	X	X	X																
ZZZZZZ			15:43																				
CCV 580-96078/58	1		15:50	X	X	X	X																
CCB 580-96078/59	1		15:59	X	X	X	X																
580-28720-16	1	T	16:06	X		X	X																
580-28720-16	100	T	16:13		X																		
580-28720-17	1	T	16:20	X	X	X	X																
ZZZZZZ			16:26																				
CCV 580-96078/64	1		16:33	X	X	X	X																
CCB 580-96078/65	1		16:42	X	X	X	X																
MB 580-96028/21-A	1	T	16:52	X	X	X	X																
LCS 580-96028/22-A	1	T	16:59	X	X	X	X																
LCSD 580-96028/23-A	1	T	17:05	X	X	X	X																
LCSSRM 580-96028/24-A	1	T	17:12	X	X	X	X																
580-28720-18 SD	5	T	17:19	X	X	X	X																
580-28720-18	1	T	17:26	X		X	X																
580-28720-18 DU	1	T	17:32	X	X	X	X																
580-28720-18 MS	1	T	17:39	X	X	X	X																
580-28720-18 MSD	1	T	17:46	X	X	X	X																
580-28720-18 PDS	1	T	17:53	X	X	X	X																
CCV 580-96078/76	1		18:00	X	X	X	X																
CCB 580-96078/77	1		18:09	X	X	X	X																
580-28720-18	100	T	18:16		X																		
580-28720-19	1	T	18:23	X		X	X																
580-28720-19	100	T	18:30		X																		
580-28720-20	1	T	18:37	X		X	X																
580-28720-20	100	T	18:43		X																		
580-28720-21	1	T	18:50	X		X	X																
580-28720-21	100	T	18:57		X																		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/24/2011 08:49 End Date: 09/24/2011 23:08

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	K	Mg																
580-28720-22	1	T	19:04	X		X	X																
580-28720-22	100	T	19:11		X																		
CCV 580-96078/87	1		19:18	X	X	X	X																
CCB 580-96078/88	1		19:27	X	X	X	X																
580-28720-23	1	T	19:37	X		X	X																
580-28720-23	100	T	19:44		X																		
580-28720-24	1	T	19:51	X	X	X	X																
ZZZZZZ			19:58																				
580-28720-25	1	T	20:05	X		X	X																
580-28720-25	100	T	20:11		X																		
580-28720-26	1	T	20:18	X	X	X	X																
ZZZZZZ			20:25																				
580-28720-27	1	T	20:32	X		X	X																
580-28720-27	100	T	20:39		X																		
CCV 580-96078/99	1		20:46	X	X	X	X																
CCB 580-96078/100	1		20:55	X	X	X	X																
580-28720-28	1	T	21:02	X		X	X																
580-28720-28	100	T	21:09		X																		
580-28720-29	1	T	21:16	X		X	X																
580-28720-29	100	T	21:23		X																		
580-28720-30	1	T	21:30	X		X	X																
580-28720-30	100	T	21:37		X																		
580-28720-31	1	T	21:45	X		X	X																
580-28720-31	100	T	21:52		X																		
580-28720-32	1	T	21:58	X		X	X																
580-28720-32	100	T	22:05		X																		
CCV 580-96078/111	1		22:12	X	X	X	X																
CCB 580-96078/112	1		22:22	X	X	X	X																
580-28720-33	1	T	22:31	X		X	X																
580-28720-33	100	T	22:38		X																		
580-28720-34	1	T	22:45	X		X	X																
580-28720-34	100	T	22:52		X																		
CCV 580-96078/117	1		22:59	X	X	X	X																
CCB 580-96078/118	1		23:08	X	X	X	X																

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/26/2011 11:41 End Date: 09/26/2011 20:11

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	K	Mg																
STD0 580-96226/1 IC			11:41	X	X	X	X																
STD1 580-96226/2 IC			11:48	X	X	X	X																
STD2 580-96226/3 IC			11:55	X	X	X	X																
STD3 580-96226/4 IC			12:01	X	X	X	X																
STD4 580-96226/5 IC			12:08	X	X	X	X																
ICV 580-96226/6	1		12:15	X	X	X	X																
ICB 580-96226/7	1		12:24	X	X	X	X																
CRI 580-96226/8	1		12:31	X	X	X	X																
ICSA 580-96226/9	1		12:49	X	X	X	X																
ICSAB 580-96226/10	1		12:56	X	X	X	X																
CCV 580-96226/11	1		16:18	X	X	X	X																
CCB 580-96226/12	1		16:27	X	X	X	X																
MB 580-96039/12-A	1	T	16:36	X	X	X	X																
LCS 580-96039/13-A	1	T	16:43	X	X	X	X																
LCSD 580-96039/14-A	1	T	16:50	X	X	X	X																
LCSSRM 580-96039/15-A	1	T	16:56	X	X	X	X																
580-28720-35 SD	5	T	17:03	X	X	X	X																
580-28720-35	1	T	17:10	X		X	X																
580-28720-35 DU	1	T	17:17	X	X	X	X																
580-28720-35 MS	1	T	17:24	X	X	X	X																
580-28720-35 MSD	1	T	17:31	X	X	X	X																
580-28720-35 PDS	1	T	17:37	X	X	X	X																
CCV 580-96226/23	1		17:44	X	X	X	X																
CCB 580-96226/24	1		17:53	X	X	X	X																
580-28720-35	100	T	18:03		X																		
580-28720-36	1	T	18:10	X		X	X																
580-28720-36	100	T	18:17		X																		
580-28720-37	1	T	18:24	X		X	X																
580-28720-37	100	T	18:30		X																		
580-28720-38	1	T	18:37	X		X	X																
580-28720-38	100	T	18:44		X																		
580-28720-39	1	T	18:51	X		X	X																
580-28720-39	100	T	18:58		X																		
CCV 580-96226/34	1		19:05	X	X	X	X																
CCB 580-96226/35	1		19:14	X	X	X	X																
580-28720-40	1	T	19:21	X		X	X																
580-28720-40	100	T	19:28		X																		
580-28720-41	1	T	19:35	X		X	X																
580-28720-41	100	T	19:41		X																		
580-28720-42	1	T	19:48	X		X	X																
580-28720-42	100	T	19:55		X																		
CCV 580-96226/42	1		20:02	X	X	X	X																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 09/26/2011 11:41 End Date: 09/26/2011 20:11

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	K	Mg																
CCB 580-96226/43	1		20:11	X	X	X	X																

Prep Types
T = Total/NA

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: SEA026 Method: 6020

Start Date: 09/23/2011 10:35 End Date: 09/23/2011 13:41

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
STD0 580-96018/1 IC	1		10:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD1 580-96018/2 IC	1		10:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD2 580-96018/3 IC	1		10:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD3 580-96018/4 IC	1		10:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD4 580-96018/5 IC	1		10:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD5 580-96018/6 IC	1		10:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICV 580-96018/7	1		10:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICB 580-96018/8	1		10:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CRI 580-96018/9	1		11:02	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICSA 580-96018/10	1		11:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICSAB 580-96018/11	1		11:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96018/12	1		11:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96018/13	1		11:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MB 580-95937/21-A	10	T	11:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 580-95937/22-A	50	T	11:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSD 580-95937/23-A	50	T	11:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSSRM 580-95937/24-A	20	T	11:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96018/18	1		11:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96018/19	1		11:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-1 SD	50	T	11:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-1	10	T	12:00	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28720-1 DU	10	T	12:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-1 MS	50	T	12:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-1 MSD	50	T	12:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-1 PDS	50	T	12:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-2	10	T	12:21	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X			
580-28720-3	10	T	12:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-4	10	T	12:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-5	10	T	12:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96018/30	1		12:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96018/31	1		12:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-6	10	T	12:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-7	10	T	12:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-8	10	T	12:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-9	10	T	12:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-10	10	T	13:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-11	10	T	13:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-12	10	T	13:07	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-13	10	T	13:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-14	10	T	13:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-15	10	T	13:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96018/42	1		13:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: SEA026 Method: 6020

Start Date: 09/23/2011 10:35 End Date: 09/23/2011 13:41

Lab Sample ID	D / F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
CCB 580-96018/43	1		13:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-16	10	T	13:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-17	10	T	13:29	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-1	1000	T	13:32			X							X										
580-28720-2	1000	T	13:35			X															X		
CCV 580-96018/48	1		13:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96018/49	1		13:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

Prep Types
T = Total/NA

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/27/2011 08:15 End Date: 09/28/2011 00:18

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
STD0 580-96277/1 IC	1		08:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD1 580-96277/2 IC	1		08:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD2 580-96277/3 IC	1		08:24	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD3 580-96277/4 IC	1		08:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD4 580-96277/5 IC	1		08:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
STD5 580-96277/6 IC	1		08:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICV 580-96277/7	1		08:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICB 580-96277/8	1		08:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CRI 580-96277/9	1		08:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICSA 580-96277/10	1		08:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ICSAB 580-96277/11	1		08:58	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96277/12	1		09:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96277/13	1		09:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MB 580-96039/12-A	10	T	09:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 580-96039/13-A	50	T	09:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSD 580-96039/14-A	50	T	09:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSSRM 580-96039/15-A	20	T	09:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96277/18	1		09:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96277/19	1		10:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-35 SD	50	T	10:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-35	10	T	10:12	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-35 DU	10	T	10:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-35 MS	50	T	10:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-35 MSD	50	T	10:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-35 PDS	50	T	10:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-36	10	T	10:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-37	10	T	10:38	X	X		X	X	X	X	X	X		X	X		X	X	X	X			
580-28720-38	10	T	10:42	X	X	X	X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28720-39	10	T	10:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96277/30	1		10:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96277/31	1		10:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-40	10	T	11:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-41	10	T	11:04	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28720-42	10	T	11:08	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96277/35	1		11:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96277/36	1		11:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
MB 580-96028/21-A	10	T	11:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCS 580-96028/22-A	50	T	11:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSD 580-96028/23-A	50	T	11:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
LCSSRM 580-96028/24-A	20	T	11:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCV 580-96277/41	1		11:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96277/42	1		11:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/27/2011 08:15 End Date: 09/28/2011 00:18

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
580-28720-18 SD	50	T	11:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-18	10	T	11:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-18 DU	10	T	12:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-18 MS	50	T	12:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-18 MSD	50	T	12:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-18 PDS	50	T	12:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-19	10	T	12:17	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-20	10	T	12:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-37	1000	T	12:26			X							X			X					X		
580-28720-38	1000	T	12:30										X										
CCV 580-96277/53	1		12:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96277/54	1		12:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-21	10	T	12:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-22	10	T	12:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-23	10	T	12:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-24	10	T	12:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-25	10	T	13:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-26	10	T	13:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-27	10	T	13:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-28	10	T	13:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-41	1000	T	13:18			X							X										
580-28720-42	1000	T	13:23			X																	
CCV 580-96277/65	1		13:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96277/66	1		13:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-29	10	T	13:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-30	10	T	13:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-31	10	T	13:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-32	10	T	13:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-33	10	T	13:53	X	X		X	X	X	X	X	X		X	X	X	X	X	X	X	X		
580-28720-34	10	T	13:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
580-28720-33	1000	T	14:02			X							X										
CCV 580-96277/74	1		14:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
CCB 580-96277/75	1		14:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		
ZZZZZZ			14:24																				
ZZZZZZ			14:28																				
ZZZZZZ			14:32																				
ZZZZZZ			14:37																				
ZZZZZZ			14:41																				
ZZZZZZ			14:46																				
ZZZZZZ			14:50																				
ZZZZZZ			14:54																				
CCV 580-96277/84			14:59																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/27/2011 08:15 End Date: 09/28/2011 00:18

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
CCB 580-96277/85			15:03																				
ZZZZZZ			15:07																				
ZZZZZZ			15:12																				
ZZZZZZ			15:16																				
ZZZZZZ			15:21																				
ZZZZZZ			15:25																				
CCV 580-96277/91			15:33																				
CCB 580-96277/92			15:38																				
ZZZZZZ			15:42																				
ZZZZZZ			15:47																				
ZZZZZZ			15:51																				
ZZZZZZ			15:55																				
ZZZZZZ			16:00																				
ZZZZZZ			16:04																				
ZZZZZZ			16:08																				
ZZZZZZ			16:13																				
ZZZZZZ			16:17																				
ZZZZZZ			16:22																				
CCV 580-96277/103			16:26																				
CCB 580-96277/104			16:30																				
ZZZZZZ			16:35																				
ZZZZZZ			16:39																				
ZZZZZZ			16:43																				
ZZZZZZ			16:48																				
ZZZZZZ			16:52																				
ZZZZZZ			16:56																				
ZZZZZZ			17:01																				
CCV 580-96277/112			17:10																				
CCB 580-96277/113			17:14																				
ZZZZZZ			17:19																				
ZZZZZZ			17:23																				
ZZZZZZ			17:27																				
ZZZZZZ			17:32																				
ZZZZZZ			17:36																				
CCV 580-96277/119			17:45																				
CCB 580-96277/120			17:49																				
CCV 580-96277/121			18:03																				
CCB 580-96277/122			18:07																				
ZZZZZZ			18:11																				
ZZZZZZ			18:16																				
ZZZZZZ			18:20																				
ZZZZZZ			18:25																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/27/2011 08:15 End Date: 09/28/2011 00:18

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
ZZZZZZ			18:29																				
ZZZZZZ			18:33																				
ZZZZZZ			18:38																				
ZZZZZZ			18:42																				
ZZZZZZ			18:46																				
CCV 580-96277/132			18:51																				
CCB 580-96277/133			18:55																				
ZZZZZZ			19:00																				
ZZZZZZ			19:04																				
ZZZZZZ			19:08																				
ZZZZZZ			19:13																				
ZZZZZZ			19:17																				
ZZZZZZ			19:21																				
ZZZZZZ			19:26																				
ZZZZZZ			19:30																				
ZZZZZZ			19:34																				
ZZZZZZ			19:39																				
CCV 580-96277/144			19:43																				
CCB 580-96277/145			19:47																				
ZZZZZZ			19:52																				
ZZZZZZ			19:56																				
ZZZZZZ			20:01																				
ZZZZZZ			20:05																				
ZZZZZZ			20:09																				
ZZZZZZ			20:14																				
CCV 580-96277/152			20:18																				
CCB 580-96277/153			20:22																				
ZZZZZZ			20:27																				
ZZZZZZ			20:31																				
ZZZZZZ			20:35																				
ZZZZZZ			20:40																				
ZZZZZZ			20:44																				
ZZZZZZ			20:48																				
ZZZZZZ			20:53																				
ZZZZZZ			20:57																				
ZZZZZZ			21:02																				
ZZZZZZ			21:06																				
CCV 580-96277/164			21:10																				
CCB 580-96277/165			21:15																				
ZZZZZZ			21:19																				
ZZZZZZ			21:23																				
ZZZZZZ			21:28																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 09/27/2011 08:15 End Date: 09/28/2011 00:18

Lab Sample ID	D/F	Type	Time	Analytes																				
				Ag	Al	As	Ba	Be	Cd	Co	Cr	Cu	Mn	Na	Ni	Pb	Sb	Se	Tl	V	Zn		
ZZZZZZ			21:32																				
ZZZZZZ			21:36																				
ZZZZZZ			21:41																				
ZZZZZZ			21:45																				
ZZZZZZ			21:49																				
ZZZZZZ			21:54																				
ZZZZZZ			21:58																				
CCV 580-96277/176			22:02																				
CCB 580-96277/177			22:07																				
ZZZZZZ			22:11																				
ZZZZZZ			22:16																				
ZZZZZZ			22:20																				
ZZZZZZ			22:24																				
ZZZZZZ			22:29																				
ZZZZZZ			22:33																				
ZZZZZZ			22:38																				
ZZZZZZ			22:42																				
ZZZZZZ			22:46																				
CCV 580-96277/187			22:51																				
CCB 580-96277/188			22:55																				
ZZZZZZ			22:59																				
ZZZZZZ			23:04																				
ZZZZZZ			23:08																				
ZZZZZZ			23:13																				
ZZZZZZ			23:17																				
ZZZZZZ			23:21																				
ZZZZZZ			23:26																				
ZZZZZZ			23:30																				
ZZZZZZ			23:35																				
ZZZZZZ			23:39																				
CCV 580-96277/199			23:43																				
CCB 580-96277/200			23:48																				
ZZZZZZ			23:52																				
ZZZZZZ			23:56																				
ZZZZZZ			00:01																				
ZZZZZZ			00:05																				
ZZZZZZ			00:10																				
CCV 580-96277/206			00:14																				
CCB 580-96277/207			00:18																				

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/23/2011 12:14 End Date: 09/23/2011 15:53

Lab Sample ID	D/F	Type	Time	Analytes																			
				Hg																			
STD0 580-96125/1 IC			12:14	X																			
STD1 580-96125/2 IC			12:16	X																			
STD2 580-96125/3 IC			12:18	X																			
STD3 580-96125/4 IC			12:19	X																			
STD4 580-96125/5 IC			12:21	X																			
STD5 580-96125/6 IC			12:23	X																			
ICV 580-96125/7	1		12:25	X																			
ICB 580-96125/8	1		12:27	X																			
ZZZZZZ			13:29																				
ZZZZZZ			13:30																				
CCV 580-96125/11	1		13:33	X																			
CCB 580-96125/12	1		13:35	X																			
MB 580-95932/21-A	1	T	13:37	X																			
LCS 580-95932/22-A	1	T	13:38	X																			
LCSD 580-95932/23-A	1	T	13:40	X																			
LCSSRM 580-95932/24-A	10	T	13:42	X																			
580-28720-3	1	T	13:54	X																			
CCV 580-96125/18	1		13:56	X																			
CCB 580-96125/19	1		13:58	X																			
580-28720-4	1	T	14:00	X																			
580-28720-5	1	T	14:01	X																			
580-28720-6	1	T	14:03	X																			
580-28720-7	1	T	14:05	X																			
580-28720-8	1	T	14:06	X																			
580-28720-9	1	T	14:08	X																			
580-28720-10	1	T	14:10	X																			
580-28720-11	1	T	14:11	X																			
580-28720-13	1	T	14:15	X																			
CCV 580-96125/29	1		14:17	X																			
CCB 580-96125/30	1		14:18	X																			
580-28720-14	1	T	14:20	X																			
580-28720-15	1	T	14:22	X																			
580-28720-16	1	T	14:24	X																			
580-28720-17	1	T	14:25	X																			
CCV 580-96125/35	1		14:27	X																			
CCB 580-96125/36	1		14:29	X																			
ZZZZZZ			14:31																				
ZZZZZZ			14:32																				
ZZZZZZ			14:34																				
CCV 580-96125/40			14:43																				
CCB 580-96125/41			14:45																				
ZZZZZZ			14:47																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/23/2011 12:14 End Date: 09/23/2011 15:53

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
ZZZZZZ			14:48																				
ZZZZZZ			14:50																				
ZZZZZZ			14:52																				
ZZZZZZ			14:53																				
ZZZZZZ			14:55																				
ZZZZZZ			14:57																				
ZZZZZZ			14:59																				
ZZZZZZ			15:00																				
ZZZZZZ			15:02																				
CCV 580-96125/52			15:04																				
CCB 580-96125/53			15:05																				
ZZZZZZ			15:07																				
ZZZZZZ			15:09																				
ZZZZZZ			15:11																				
ZZZZZZ			15:12																				
ZZZZZZ			15:14																				
ZZZZZZ			15:16																				
ZZZZZZ			15:17																				
ZZZZZZ			15:19																				
ZZZZZZ			15:20																				
ZZZZZZ			15:22																				
CCV 580-96125/64			15:24																				
CCB 580-96125/65			15:25																				
ZZZZZZ			15:27																				
ZZZZZZ			15:29																				
CCV 580-96125/68			15:31																				
CCB 580-96125/69			15:32																				
CCV 580-96125/70	1		15:36	X																			
CCB 580-96125/71	1		15:37	X																			
580-28720-1	10	T	15:39	X																			
580-28720-1 DU	10	T	15:41	X																			
580-28720-1 MS	10	T	15:43	X																			
580-28720-1 MSD	10	T	15:44	X																			
580-28720-2	10	T	15:46	X																			
580-28720-12	10	T	15:48	X																			
ZZZZZZ			15:49																				
CCV 580-96125/79	1		15:51	X																			
CCB 580-96125/80	1		15:53	X																			

Prep Types
T = Total/NA

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/28/2011 12:10 End Date: 09/28/2011 16:40

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
STD0 580-96373/1 IC			12:10	X																			
STD1 580-96373/2 IC			12:12	X																			
STD2 580-96373/3 IC			12:13	X																			
STD3 580-96373/4 IC			12:15	X																			
STD4 580-96373/5 IC			12:17	X																			
STD5 580-96373/6 IC			12:18	X																			
ICV 580-96373/7	1		12:20	X																			
ICB 580-96373/8	1		12:22	X																			
CCV 580-96373/9	1		12:57	X																			
CCB 580-96373/10	1		12:58	X																			
MB 580-96254/21-A	1	T	13:00	X																			
LCS 580-96254/22-A	1	T	13:02	X																			
LCSD 580-96254/23-A	1	T	13:03	X																			
LCSSRM 580-96254/24-A	10	T	13:05	X																			
580-28720-19	1	T	13:07	X																			
580-28720-19 DU	1	T	13:09	X																			
580-28720-19 MS	1	T	13:10	X																			
580-28720-19 MSD	1	T	13:12	X																			
580-28720-20	1	T	13:14	X																			
580-28720-21	1	T	13:16	X																			
CCV 580-96373/21	1		13:17	X																			
CCB 580-96373/22	1		13:19	X																			
580-28720-22	1	T	13:21	X																			
580-28720-23	1	T	13:23	X																			
580-28720-24	1	T	13:24	X																			
580-28720-25	1	T	13:26	X																			
580-28720-26	1	T	13:28	X																			
580-28720-27	1	T	13:29	X																			
580-28720-28	1	T	13:31	X																			
580-28720-29	1	T	13:33	X																			
580-28720-30	1	T	13:34	X																			
580-28720-31	1	T	13:36	X																			
CCV 580-96373/33	1		13:38	X																			
CCB 580-96373/34	1		13:39	X																			
580-28720-32	1	T	13:41	X																			
580-28720-34	1	T	13:45	X																			
580-28720-35	1	T	13:47	X																			
CCV 580-96373/38	1		13:48	X																			
CCB 580-96373/39	1		13:50	X																			
MB 580-96255/12-A	1	T	13:52	X																			
LCS 580-96255/13-A	1	T	13:54	X																			
LCSD 580-96255/14-A	1	T	13:55	X																			

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 09/28/2011 12:10 End Date: 09/28/2011 16:40

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
LCSSRM 580-96255/15-A	10	T	13:57	X																			
580-28720-36	1	T	13:59	X																			
580-28720-36 DU	1	T	14:01	X																			
580-28720-36 MS	1	T	14:02	X																			
580-28720-36 MSD	1	T	14:04	X																			
580-28720-37	1	T	14:06	X																			
580-28720-38	1	T	14:08	X																			
CCV 580-96373/50	1		14:10	X																			
CCB 580-96373/51	1		14:11	X																			
580-28720-39	1	T	14:13	X																			
580-28720-40	1	T	14:15	X																			
580-28720-41	1	T	14:17	X																			
580-28720-42	1	T	14:19	X																			
580-28720-18	1	T	14:20	X																			
ZZZZZZ			14:22																				
ZZZZZZ			14:24																				
ZZZZZZ			14:26																				
ZZZZZZ			14:28																				
CCV 580-96373/61	1		14:29	X																			
CCB 580-96373/62	1		14:31	X																			
ZZZZZZ			14:33																				
ZZZZZZ			14:35																				
580-28720-33	10	T	14:37	X																			
CCV 580-96373/66	1		14:38	X																			
CCB 580-96373/67	1		14:40	X																			
CCV 580-96373/68			16:20																				
CCB 580-96373/69			16:22																				
ZZZZZZ			16:24																				
ZZZZZZ			16:25																				
ZZZZZZ			16:27																				
ZZZZZZ			16:29																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
ZZZZZZ			16:34																				
ZZZZZZ			16:35																				
ZZZZZZ			16:37																				
CCV 580-96373/79			16:39																				
CCB 580-96373/80			16:40																				

Prep Types
T = Total/NA

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICP-MS Instrument ID: SEA026 Start Date: 09/23/2011 End Date: 09/23/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q	Element Lu	Q
STD0 580-96018/1 IC	10:35										
STD1 580-96018/2 IC	10:38										
STD2 580-96018/3 IC	10:41										
STD3 580-96018/4 IC	10:44										
STD4 580-96018/5 IC	10:47										
STD5 580-96018/6 IC	10:50										
ICV 580-96018/7	10:54										
ICB 580-96018/8	10:58										
CRI 580-96018/9	11:02										
ICSA 580-96018/10	11:06										
ICSAB 580-96018/11	11:10										
CCV 580-96018/12	11:23										
CCB 580-96018/13	11:27										
MB 580-95937/21-A	11:31										
LCS 580-95937/22-A	11:35										
LCSD 580-95937/23-A	11:39										
LCSSRM	11:43										
CCV 580-96018/18	11:48										
CCB 580-96018/19	11:52										
580-28720-1 SD	11:56										
580-28720-1	12:00										
580-28720-1 DU	12:05										
580-28720-1 MS	12:09										
580-28720-1 MSD	12:13										
580-28720-1 PDS	12:17										
580-28720-2	12:21										
580-28720-3	12:25										
580-28720-4	12:29										
580-28720-5	12:33										
CCV 580-96018/30	12:37										
CCB 580-96018/31	12:42										
580-28720-6	12:46										
580-28720-7	12:50										
580-28720-8	12:54										
580-28720-9	12:57										
580-28720-10	13:00										
580-28720-11	13:03										
580-28720-12	13:07										
580-28720-13	13:10										
580-28720-14	13:13										
580-28720-15	13:16										
CCV 580-96018/42	13:19										

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICP-MS Instrument ID: SEA026 Start Date: 09/23/2011 End Date: 09/23/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q	Element Lu	Q
CCB 580-96018/43	13:22										
580-28720-16	13:25										
580-28720-17	13:29										
580-28720-1	13:32										
580-28720-2	13:35										
CCV 580-96018/48	13:38										
CCB 580-96018/49	13:41										

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/27/2011 End Date: 09/27/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q
STD0 580-96277/1 IC	08:15	100		100		100		100		100	
STD1 580-96277/2 IC	08:19	100		97		100		99		100	
STD2 580-96277/3 IC	08:24	98		98		99		100		99	
STD3 580-96277/4 IC	08:28	98		98		99		98		98	
STD4 580-96277/5 IC	08:33	95		96		97		98		97	
STD5 580-96277/6 IC	08:37	93		95		97		97		94	
ICV 580-96277/7	08:41	94		95		98		97		96	
ICB 580-96277/8	08:45	96		97		98		98		98	
CRI 580-96277/9	08:50	94		94		99		98		99	
ICSA 580-96277/10	08:54	91		92		98		95		88	
ICSAB 580-96277/11	08:58	90		90		98		95		89	
CCV 580-96277/12	09:33	83		88		95		97		95	
CCB 580-96277/13	09:38	86		85		96		98		99	
MB 580-96039/12-A	09:42					95				98	
LCS 580-96039/13-A	09:46					95				97	
LCSD 580-96039/14-A	09:51					94				97	
LCSSRM	09:55					93				96	
CCV 580-96277/18	09:59	82		86		94		96		96	
CCB 580-96277/19	10:04	84		85		94		97		97	
580-28720-35 SD	10:08	88		98		96				96	
580-28720-35	10:12					94				92	
580-28720-35 DU	10:17					93				92	
580-28720-35 MS	10:21					95				95	
580-28720-35 MSD	10:25					97				96	
580-28720-35 PDS	10:30	87		99		97				97	
580-28720-36	10:34					94				93	
580-28720-37	10:38					92				90	
580-28720-38	10:42					92				91	
580-28720-39	10:47					93				92	
CCV 580-96277/30	10:51	80		81		95		96		96	
CCB 580-96277/31	10:55	81		84		94		97		98	
580-28720-40	11:00					89				89	
580-28720-41	11:04					89				88	
580-28720-42	11:08					89				89	
CCV 580-96277/35	11:13	79		81		94		95		94	
CCB 580-96277/36	11:18	78		82		91		95		97	
MB 580-96028/21-A	11:23					92				97	
LCS 580-96028/22-A	11:28					92				96	
LCSD 580-96028/23-A	11:34					92				96	
LCSSRM	11:38					93				95	
CCV 580-96277/41	11:42	75		77		92		95		95	
CCB 580-96277/42	11:47	78		80		93		97		97	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/27/2011 End Date: 09/27/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q
580-28720-18 SD	11:51	78		102		93				96	
580-28720-18	11:55					92				91	
580-28720-18 DU	12:00					90				90	
580-28720-18 MS	12:04					92				94	
580-28720-18 MSD	12:08					93				94	
580-28720-18 PDS	12:13	80		101		94				94	
580-28720-19	12:17					89				91	
580-28720-20	12:21					90				92	
580-28720-37	12:26										
580-28720-38	12:30										
CCV 580-96277/53	12:34	74		77		92		94		93	
CCB 580-96277/54	12:39	75		77		92		94		96	
580-28720-21	12:43					90				89	
580-28720-22	12:48					88				90	
580-28720-23	12:52					89				90	
580-28720-24	12:56					88				94	
580-28720-25	13:01					89				89	
580-28720-26	13:05					90				93	
580-28720-27	13:09					89				90	
580-28720-28	13:14					88				89	
580-28720-41	13:18										
580-28720-42	13:23										
CCV 580-96277/65	13:27	74		74		90		93		93	
CCB 580-96277/66	13:31	75		77		90		93		95	
580-28720-29	13:36					89				90	
580-28720-30	13:40					89				87	
580-28720-31	13:44					89				87	
580-28720-32	13:49					88				88	
580-28720-33	13:53					87				88	
580-28720-34	13:57					87				89	
580-28720-33	14:02										
CCV 580-96277/74	14:11	72		74		89		92		91	
CCB 580-96277/75	14:15	72		75		89		92		94	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/27/2011 End Date: 09/27/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q	Element	Q
STD0 580-96277/1 IC	08:15	100		100		100					
STD1 580-96277/2 IC	08:19	100		100		98					
STD2 580-96277/3 IC	08:24	100		100		100					
STD3 580-96277/4 IC	08:28	100		99		99					
STD4 580-96277/5 IC	08:33	98		98		96					
STD5 580-96277/6 IC	08:37	96		97		93					
ICV 580-96277/7	08:41	97		97		96					
ICB 580-96277/8	08:45	99		99		99					
CRI 580-96277/9	08:50	99		100		98					
ICSA 580-96277/10	08:54	94		95		87					
ICSAB 580-96277/11	08:58	94		94		86					
CCV 580-96277/12	09:33	101		101		98					
CCB 580-96277/13	09:38	100		102		102					
MB 580-96039/12-A	09:42	99		101							
LCS 580-96039/13-A	09:46	100		101							
LCSD 580-96039/14-A	09:51	101		101							
LCSSRM	09:55	10		100							
CCV 580-96277/18	09:59	99		101		97					
CCB 580-96277/19	10:04	101		101		101					
580-28720-35 SD	10:08	100		100							
580-28720-35	10:12	99		99							
580-28720-35 DU	10:17	99		99							
580-28720-35 MS	10:21	98		100							
580-28720-35 MSD	10:25	100		100							
580-28720-35 PDS	10:30	99		101							
580-28720-36	10:34	99		100							
580-28720-37	10:38	96		97							
580-28720-38	10:42	97		98							
580-28720-39	10:47	98		98							
CCV 580-96277/30	10:51	100		100		98					
CCB 580-96277/31	10:55	101		102		102					
580-28720-40	11:00	95		96							
580-28720-41	11:04	97		96							
580-28720-42	11:08	95		96							
CCV 580-96277/35	11:13	100		100		97					
CCB 580-96277/36	11:18	99		102		101					
MB 580-96028/21-A	11:23	100		101							
LCS 580-96028/22-A	11:28	100		101							
LCSD 580-96028/23-A	11:34	101		102							
LCSSRM	11:38	10		101							
CCV 580-96277/41	11:42	100		101		99					
CCB 580-96277/42	11:47	102		103		102					

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 09/27/2011 End Date: 09/27/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q	Element	Q
580-28720-18 SD	11:51	101		102							
580-28720-18	11:55	100		100							
580-28720-18 DU	12:00	98		99							
580-28720-18 MS	12:04	99		101							
580-28720-18 MSD	12:08	99		100							
580-28720-18 PDS	12:13	99		102							
580-28720-19	12:17	98		100							
580-28720-20	12:21	100		101							
580-28720-37	12:26			10							
580-28720-38	12:30			10							
CCV 580-96277/53	12:34	100		102		98					
CCB 580-96277/54	12:39	99		102		102					
580-28720-21	12:43	97		97							
580-28720-22	12:48	99		99							
580-28720-23	12:52	98		100							
580-28720-24	12:56	100		100							
580-28720-25	13:01	97		98							
580-28720-26	13:05	99		101							
580-28720-27	13:09	98		100							
580-28720-28	13:14	97		98							
580-28720-41	13:18			10							
580-28720-42	13:23			10							
CCV 580-96277/65	13:27	100		101		98					
CCB 580-96277/66	13:31	99		100		102					
580-28720-29	13:36	97		99							
580-28720-30	13:40	96		97							
580-28720-31	13:44	96		97							
580-28720-32	13:49	97		98							
580-28720-33	13:53	97		97							
580-28720-34	13:57	97		99							
580-28720-33	14:02			10							
CCV 580-96277/74	14:11	98		100		98					
CCB 580-96277/75	14:15	98		100		100					

Sample Name: Blank Acquired: 9/24/2011 8:49:19 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	-.0208	.0002	.0000	.0421	.0000
Stddev	1.361	.0010	.0000	.0046	.0001
%RSD	6535.	603.5	195.2	10.83	575.6
#1	1.512	.0004	.0000	.0406	.0001
#2	-1.088	-.0009	.0000	.0472	.0000
#3	-.4875	.0010	.0000	.0385	.0000

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2122.8	23713.	448.50	610.13
Stddev	3.5	14.	3.06	10.04
%RSD	.16313	.05717	.68127	1.6451
#1	2125.6	23698.	445.67	599.75
#2	2118.9	23721.	451.74	619.78
#3	2123.8	23722.	448.10	610.85

Sample Name: 580-28720-A-7-B Acquired: 9/24/2011 13:34:07 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	1.144	.0606	1.923	-.3372	.1349
Stddev	.033	.0681	.043	.0846	.0027
%RSD	2.893	112.5	2.216	25.08	2.029
#1	1.145	-.0180	1.948	-.4175	.1377
#2	1.176	.0965	1.948	-.2489	.1323
#3	1.110	.1032	1.874	-.3453	.1346

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2191.2	23570.	439.51	630.46
Stddev	3.8	37.	3.93	3.92
%RSD	.17237	.15674	.89496	.62239
#1	2188.3	23528.	434.98	628.90
#2	2195.5	23598.	441.53	634.93
#3	2189.7	23584.	442.02	627.56

Sample Name: CalibStd1 00020 Acquired: 9/24/2011 8:56:09 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**8.392**	**.0254**	**.0006**	**.1349**	**.0589**
Stddev	2.206	.0008	.0000	.0019	.0001
%RSD	26.29	3.086	7.678	1.423	.1851
#1	5.850	.0247	.0005	.1345	.0591
#2	9.813	.0262	.0006	.1333	.0589
#3	9.513	.0252	.0006	.1370	.0589

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2089.5**	**23629.**	**445.23**	**604.03**
Stddev	4.2	33.	6.42	5.10
%RSD	.20108	.13971	1.4420	.84466
#1	2085.1	23599.	446.09	603.00
#2	2090.0	23664.	451.18	609.56
#3	2093.5	23624.	438.43	599.52

Sample Name: LCSSRM 580-96028/24- Acquired: 9/24/2011 17:12:28 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**83.80**	**70.27**	**114.2**	**26.74**	**27.50**
Stddev	.53	1.26	.4	.37	.06
%RSD	.6374	1.794	.3765	1.379	.2317
#1	83.28	71.72	114.4	27.14	27.56
#2	83.76	69.63	114.4	26.42	27.51
#3	84.35	69.45	113.7	26.65	27.43

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1950.8**	**24542.**	**441.42**	**585.87**
Stddev	1.4	67.	3.60	6.45
%RSD	.07016	.27352	.81510	1.1005
#1	1949.8	24467.	437.81	578.44
#2	1952.3	24560.	445.00	589.93
#3	1950.2	24598.	441.45	589.25

Sample Name: 580-28720-A-19-B Acquired: 9/24/2011 18:30:05 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**2.194**	**.0812**	**4.114**	**-.3729**	**.1460**
Stddev	.075	.0510	.066	.0240	.0017
%RSD	3.405	62.80	1.603	6.434	1.197
#1	2.177	.1397	4.190	-.4006	.1447
#2	2.275	.0575	4.076	-.3588	.1452
#3	2.128	.0463	4.076	-.3592	.1480

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2154.8**	**24232.**	**441.48**	**604.99**
Stddev	5.2	66.	1.98	4.88
%RSD	.23938	.27222	.44874	.80741
#1	2152.3	24156.	442.55	609.22
#2	2151.4	24267.	442.70	606.10
#3	2160.8	24272.	439.20	599.64

Sample Name: 580-28720-A-24-B Acquired: 9/24/2011 19:51:11 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	60.68	2.175	92.92	.8335	2.547
Stddev	.49	.042	.49	.0399	.015
%RSD	.7999	1.919	.5278	4.781	.5799
#1	60.65	2.127	92.38	.7875	2.559
#2	61.18	2.194	93.34	.8576	2.551
#3	60.21	2.204	93.04	.8554	2.531

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2095.1	24222.	453.82	619.09
Stddev	8.0	130.	4.46	11.18
%RSD	.37976	.53774	.98243	1.8058
#1	2095.4	24157.	448.76	606.68
#2	2087.0	24136.	455.52	628.36
#3	2102.9	24371.	457.18	622.24

Sample Name: CalibStd-2 00022 Acquired: 9/24/2011 9:03:00 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**35.79**	**.1217**	**.0027**	**.5254**	**.2865**
Stddev	.65	.0002	.0000	.0080	.0008
%RSD	1.819	.1520	1.709	1.531	.2772
#1	35.09	.1219	.0027	.5342	.2860
#2	36.38	.1216	.0028	.5183	.2874
#3	35.90	.1217	.0027	.5238	.2860

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2046.8**	**23467.**	**445.88**	**617.29**
Stddev	5.3	62.	1.27	8.79
%RSD	.25832	.26341	.28460	1.4232
#1	2052.4	23519.	445.02	607.16
#2	2041.8	23399.	447.34	621.97
#3	2046.3	23484.	445.29	622.75

Sample Name: CCB Acquired: 9/24/2011 22:22:01 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.0454	.0538	.1045	-.4444	.0080
Stddev	.2184	.0947	.0163	.0862	.0006
%RSD	481.5	176.1	15.62	19.40	7.718
#1	.2827	.1447	.1214	-.5353	.0080
#2	-.1473	-.0443	.0888	-.4341	.0087
#3	.0008	.0609	.1033	-.3638	.0075
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2139.0	24896.	435.50	568.33
Stddev	1.4	33.	2.02	4.16
%RSD	.06641	.13152	.46362	.73118
#1	2137.8	24885.	436.37	563.68
#2	2140.6	24870.	436.93	571.68
#3	2138.7	24933.	433.19	569.62

Sample Name: CalibStd-3 00020 Acquired: 9/24/2011 9:09:34 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**173.0**	**.5895**	**.0137**	**2.450**	**1.416**
Stddev	1.6	.0148	.0001	.048	.001
%RSD	.9521	2.511	.7851	1.971	.0685
#1	171.1	.5725	.0137	2.398	1.416
#2	173.9	.5961	.0139	2.457	1.414
#3	174.0	.5997	.0137	2.494	1.416

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1871.5**	**22070.**	**442.10**	**618.82**
Stddev	1.5	59.	7.34	11.53
%RSD	.08179	.26823	1.6596	1.8631
#1	1869.8	22122.	450.27	631.83
#2	1872.8	22083.	439.98	614.79
#3	1871.8	22006.	436.06	609.85

Sample Name: CalibStd-4 00020 Acquired: 9/24/2011 9:16:06 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**341.8**	**1.145**	**.0269**	**4.772**	**2.737**
Stddev	5.9	.009	.0003	.035	.005
%RSD	1.740	.7945	.9857	.7329	.1682
#1	344.3	1.155	.0268	4.812	2.733
#2	346.1	1.138	.0272	4.747	2.736
#3	335.1	1.141	.0267	4.756	2.742

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1821.8**	**22101.**	**448.95**	**637.01**
Stddev	1.3	27.	.75	6.08
%RSD	.07086	.12235	.16790	.95397
#1	1823.1	22128.	449.68	632.32
#2	1820.6	22101.	448.17	643.88
#3	1821.6	22074.	449.01	634.84

Sample Name: ICV 200.7 00015 Acquired: 9/24/2011 9:22:40 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**5.084**	**5.450**	**5.141**	**15.71**	**5.291**
Stddev	.085	.067	.067	.12	.021
%RSD	1.661	1.225	1.299	.7393	.3985
#1	5.025	5.428	5.215	15.78	5.272
#2	5.046	5.397	5.123	15.78	5.314
#3	5.181	5.525	5.086	15.58	5.287
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2035.7**	**23140.**	**443.73**	**622.46**
Stddev	2.3	44.	3.66	6.33
%RSD	.11530	.18816	.82565	1.0176
#1	2037.5	23180.	447.70	624.99
#2	2033.0	23094.	440.49	615.25
#3	2036.5	23147.	442.98	627.13

Sample Name: ICB_CCB Acquired: 9/24/2011 9:31:44 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0573**	**-.0061**	**-.0013**	**-.2320**	**.0022**
Stddev	.1079	.0905	.0232	.0768	.0028
%RSD	188.2	1478.	1775.	33.11	125.4
#1	.0252	.0852	.0051	-.1478	.0025
#2	.1777	-.0957	-.0270	-.2501	.0049
#3	-.0309	-.0079	.0180	-.2981	-.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2142.6**	**22960.**	**434.45**	**608.91**
Stddev	2.3	35.	3.67	8.35
%RSD	.10858	.15298	.84589	1.3711
#1	2145.3	22980.	430.34	601.97
#2	2141.7	22920.	437.42	618.18
#3	2140.9	22982.	435.60	606.59

Sample Name: CRI 00020 Acquired: 9/24/2011 9:38:43 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.7909	1.170	.1712	2.863	1.155
Stddev	.0913	.056	.0286	.097	.001
%RSD	11.55	4.791	16.68	3.398	.0897
#1	.7382	1.160	.1409	2.944	1.156
#2	.7382	1.120	.1752	2.755	1.154
#3	.8963	1.230	.1976	2.890	1.154
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2122.5	23347.	428.80	605.83
Stddev	4.1	35.	10.72	15.14
%RSD	.19138	.15009	2.4999	2.4987
#1	2122.7	23313.	416.49	588.86
#2	2126.5	23383.	433.85	610.69
#3	2118.4	23345.	436.07	617.95

Sample Name: HIGH STD 00020 Acquired: 9/24/2011 9:45:36 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**39.30**	**78.26**	**39.53**	**79.85**	**79.24**
Stddev	.34	1.14	.29	1.16	.07
%RSD	.8701	1.462	.7265	1.456	.0865
#1	39.46	78.57	39.36	80.32	79.31
#2	38.91	79.21	39.37	80.70	79.17
#3	39.54	76.99	39.86	78.52	79.25
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1809.9**	**22128.**	**446.07**	**625.20**
Stddev	5.4	52.	8.79	12.32
%RSD	.29775	.23418	1.9703	1.9711
#1	1808.8	22143.	446.51	625.43
#2	1815.7	22170.	437.06	612.76
#3	1805.0	22070.	454.63	637.41

Sample Name: ICSA 00036 Acquired: 9/24/2011 9:54:29 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**480.4**	**471.9**	**192.7**	**.0808**	**483.7**
Stddev	5.5	4.4	1.4	.0507	1.3
%RSD	1.146	.9262	.7327	62.77	.2588
#1	486.6	466.9	194.4	.0634	482.3
#2	478.7	473.6	192.0	.1380	484.5
#3	476.0	475.1	191.9	.0411	484.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1653.9**	**20624.**	**430.74**	**610.63**
Stddev	4.0	13.	4.19	11.22
%RSD	.24270	.06216	.97260	1.8366
#1	1652.1	20629.	435.48	623.47
#2	1658.5	20633.	429.22	605.72
#3	1651.1	20609.	427.53	602.72

Sample Name: ICSAB 00028 Acquired: 9/24/2011 10:04:02 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**479.1**	**476.0**	**198.3**	**206.7**	**485.5**
Stddev	3.0	3.7	2.0	1.5	.3
%RSD	.6210	.7829	1.019	.7216	.0627
#1	477.9	472.0	196.4	205.0	485.6
#2	476.9	479.3	198.0	208.0	485.7
#3	482.5	476.8	200.4	207.0	485.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1576.0**	**20051.**	**423.87**	**618.96**
Stddev	2.5	12.	3.21	4.82
%RSD	.15722	.06060	.75815	.77903
#1	1574.1	20037.	420.33	620.52
#2	1575.1	20057.	424.71	613.55
#3	1578.8	20059.	426.59	622.81

Sample Name: CCV 00033 Acquired: 9/24/2011 10:10:53 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.17**	**20.77**	**10.39**	**20.44**	**20.94**
Stddev	.32	.19	.15	.43	.05
%RSD	3.138	.9087	1.464	2.127	.2349
#1	9.831	20.58	10.54	20.01	20.93
#2	10.22	20.76	10.38	20.42	20.90
#3	10.46	20.96	10.24	20.88	20.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1988.4**	**22180.**	**445.83**	**642.85**
Stddev	3.2	10.	2.64	11.11
%RSD	.16044	.04498	.59215	1.7281
#1	1984.8	22169.	448.23	655.19
#2	1989.9	22187.	446.27	639.72
#3	1990.6	22185.	443.00	633.64

Sample Name: ICB_CCB Acquired: 9/24/2011 10:19:53 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**-.0232**	**-.0375**	**-.0422**	**-.1408**	**.0145**
Stddev	.2369	.0396	.0188	.0137	.0022
%RSD	1023.	105.7	44.57	9.731	15.03
#1	.0569	-.0467	-.0205	-.1302	.0122
#2	.1633	-.0717	-.0531	-.1562	.0166
#3	-.2897	.0060	-.0532	-.1359	.0148
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2199.8**	**22657.**	**446.47**	**649.00**
Stddev	1.6	40.	5.08	9.36
%RSD	.07355	.17693	1.1388	1.4420
#1	2200.0	22663.	440.71	638.19
#2	2201.3	22694.	450.33	654.65
#3	2198.1	22615.	448.36	654.14

Sample Name: MB 580-95937/21-A Acquired: 9/24/2011 10:29:23 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	-.0050	.1329	.0270	-.1283	.0032
Stddev	.0649	.0429	.0340	.1288	.0027
%RSD	1302.	32.31	126.1	100.4	83.17
#1	-.0668	.1824	-.0076	-.2604	.0017
#2	.0626	.1092	.0604	-.1216	.0016
#3	-.0107	.1069	.0281	-.0030	.0063

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2221.5	22794.	445.11	660.39
Stddev	1.6	18.	2.15	1.86
%RSD	.07230	.07987	.48231	.28186
#1	2222.5	22805.	442.71	661.59
#2	2222.5	22805.	446.85	658.24
#3	2219.7	22773.	445.78	661.33

Sample Name: LCS 580-95937/22-A Acquired: 9/24/2011 10:36:21 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	3.593	19.91	21.84	19.14	19.53
Stddev	.291	.12	.05	.38	.09
%RSD	8.097	.6112	.2466	1.960	.4836
#1	3.484	19.78	21.78	18.70	19.45
#2	3.923	19.91	21.86	19.36	19.50
#3	3.372	20.02	21.89	19.35	19.63

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2004.8	22030.	442.38	643.00
Stddev	3.3	70.	1.83	2.96
%RSD	.16238	.31963	.41385	.46087
#1	2001.1	22089.	444.28	645.82
#2	2007.4	22050.	440.63	639.91
#3	2005.9	21952.	442.25	643.25

Sample Name: LCSD 580-95937/23-A Acquired: 9/24/2011 10:42:52 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**3.853**	**20.63**	**25.20**	**19.68**	**21.06**
Stddev	.086	.61	.28	.21	.44
%RSD	2.244	2.954	1.123	1.074	2.084
#1	3.944	19.95	24.94	19.55	21.52
#2	3.843	20.83	25.17	19.93	21.00
#3	3.772	21.12	25.50	19.57	20.65

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1671.9**	**19751.**	**441.13**	**653.08**
Stddev	50.6	236.	2.60	5.27
%RSD	3.0270	1.1972	.59048	.80661
#1	1725.3	19994.	443.83	658.04
#2	1666.0	19739.	440.91	647.55
#3	1624.6	19521.	438.64	653.66

Sample Name: LCSSRM 580-95937/24- Acquired: 9/24/2011 10:49:22 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**50.91**	**67.57**	**98.02**	**20.23**	**23.44**
Stddev	.31	.41	.74	.12	.06
%RSD	.6122	.6037	.7596	.5778	.2633
#1	50.55	68.02	98.57	20.35	23.49
#2	51.10	67.22	97.17	20.12	23.37
#3	51.09	67.47	98.31	20.22	23.47

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1970.3**	**22455.**	**450.81**	**648.68**
Stddev	8.7	74.	1.99	2.89
%RSD	.44181	.32738	.44112	.44529
#1	1960.4	22384.	452.62	645.42
#2	1976.8	22531.	451.13	650.91
#3	1973.7	22451.	448.68	649.72

Sample Name: 580-28720-A-1-E sd Acquired: 9/24/2011 10:56:02 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**4.588**	**4.635**	**281.7**	**1.511**	**2.052**
Stddev	.245	.030	.8	.039	.002
%RSD	5.343	.6440	.2856	2.606	.1066
#1	4.720	4.665	281.9	1.548	2.053
#2	4.740	4.633	282.4	1.515	2.053
#3	4.305	4.605	280.8	1.470	2.049

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2126.5**	**22967.**	**443.54**	**639.79**
Stddev	6.0	39.	1.88	4.28
%RSD	.28155	.16796	.42390	.66923
#1	2121.4	22977.	444.55	642.98
#2	2125.2	22925.	444.69	634.93
#3	2133.1	23000.	441.37	641.47

Sample Name: 580-28720-A-1-E Acquired: 9/24/2011 11:02:54 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**22.84**	**20.86**	**1206.**	**8.312**	**9.184**
Stddev	.23	.28	3.	.192	.023
%RSD	1.016	1.365	.2254	2.306	.2496
#1	22.87	21.08	1204.	8.502	9.159
#2	22.59	20.54	1205.	8.119	9.189
#3	23.05	20.95	1209.	8.315	9.204

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2057.7**	**22562.**	**464.85**	**662.08**
Stddev	5.7	43.	4.48	.45
%RSD	.27792	.19279	.96297	.06812
#1	2051.1	22612.	469.79	661.56
#2	2060.9	22534.	463.69	662.38
#3	2061.1	22539.	461.07	662.30

Sample Name: 580-28720-A-1-F DU Acquired: 9/24/2011 11:09:41 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	22.56	19.57	1107.	6.783	9.195
Stddev	.14	.60	4.	.208	.064
%RSD	.6300	3.070	.3697	3.066	.6947
#1	22.49	19.26	1111.	6.825	9.255
#2	22.46	19.18	1109.	6.558	9.203
#3	22.72	20.26	1103.	6.967	9.128

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2016.8	21989.	446.42	636.21
Stddev	14.6	181.	10.15	16.00
%RSD	.72322	.82189	2.2736	2.5145
#1	2000.2	21798.	453.95	648.25
#2	2027.5	22010.	450.42	642.34
#3	2022.7	22158.	434.87	618.06

Sample Name: 580-28720-A-1-G MS Acquired: 9/24/2011 11:16:30 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**26.91**	**39.25**	**1076.**	**25.08**	**25.51**
Stddev	.35	.58	1.	.31	.06
%RSD	1.292	1.489	.1208	1.229	.2271
#1	26.86	38.61	1075.	24.75	25.54
#2	26.58	39.75	1077.	25.12	25.55
#3	27.28	39.39	1075.	25.36	25.45

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1964.9**	**22314.**	**447.83**	**631.67**
Stddev	7.8	36.	6.42	9.20
%RSD	.39632	.16320	1.4345	1.4563
#1	1972.9	22317.	455.23	642.28
#2	1957.4	22275.	443.75	625.92
#3	1964.4	22348.	444.50	626.81

Sample Name: 580-28720-A-1-H MSD Acquired: 9/24/2011 11:23:08 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**28.59**	**39.25**	**1143.**	**26.25**	**25.67**
Stddev	.47	.17	1.	.24	.05
%RSD	1.640	.4306	.1020	.8956	.1801
#1	28.16	39.37	1142.	26.34	25.72
#2	28.53	39.33	1144.	26.43	25.65
#3	29.09	39.06	1143.	25.99	25.63

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1978.2**	**22234.**	**439.52**	**613.29**
Stddev	5.5	67.	3.40	8.51
%RSD	.27639	.30283	.77467	1.3868
#1	1971.9	22162.	435.59	604.06
#2	1981.9	22244.	441.36	615.00
#3	1980.8	22296.	441.62	620.81

Sample Name: 580-28720-A-1-E pds Acquired: 9/24/2011 11:29:47 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	30.13	39.31	1171.	29.39	27.27
Stddev	.54	.21	2.	.20	.06
%RSD	1.793	.5406	.1629	.6659	.2079
#1	30.34	39.31	1173.	29.27	27.30
#2	29.51	39.52	1171.	29.62	27.30
#3	30.53	39.10	1170.	29.29	27.20

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1947.8	21961.	448.99	631.86
Stddev	5.7	49.	5.45	6.57
%RSD	.29108	.22512	1.2135	1.0400
#1	1941.5	21916.	455.02	634.80
#2	1949.3	21952.	444.42	624.33
#3	1952.5	22014.	447.53	636.44

Sample Name: CCV Acquired: 9/24/2011 11:36:26 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.09**	**21.17**	**10.14**	**20.52**	**20.60**
Stddev	.06	.40	.14	.38	.05
%RSD	.5501	1.884	1.406	1.872	.2471
#1	10.14	21.54	10.28	20.96	20.65
#2	10.03	20.75	10.16	20.35	20.59
#3	10.11	21.23	9.994	20.25	20.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2038.7**	**22929.**	**435.33**	**624.95**
Stddev	2.7	42.	1.63	5.16
%RSD	.13168	.18142	.37437	.82552
#1	2037.3	22881.	434.04	619.08
#2	2041.8	22951.	434.79	627.05
#3	2037.0	22955.	437.16	628.73

Sample Name: CCB Acquired: 9/24/2011 11:45:28 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.1450	.0723	.0480	-.0782	.0008
Stddev	.1133	.0373	.0318	.1508	.0017
%RSD	78.10	51.65	66.23	192.8	207.5
#1	.1762	.1053	.0632	.0954	-.0012
#2	.2395	.0317	.0115	-.1535	.0019
#3	.0195	.0798	.0693	-.1765	.0018
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2217.5	22986.	426.21	623.29
Stddev	3.0	64.	27.81	40.16
%RSD	.13685	.27881	6.5246	6.4435
#1	2219.0	22914.	394.13	577.15
#2	2214.0	23037.	441.03	642.35
#3	2219.4	23006.	443.47	650.38

Sample Name: 580-28720-A-1-E Acquired: 9/24/2011 11:54:59 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.2173	.2625	14.56	-.1534	.1079
Stddev	.1603	.0706	.17	.0540	.0011
%RSD	73.78	26.90	1.136	35.17	1.061
#1	.3391	.1814	14.38	-.1272	.1086
#2	.2773	.2957	14.63	-.2155	.1086
#3	.0357	.3103	14.69	-.1175	.1066

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2222.5	22902.	434.29	636.55
Stddev	.5	29.	5.40	9.50
%RSD	.02319	.12496	1.2426	1.4924
#1	2221.9	22870.	428.94	627.74
#2	2222.8	22912.	434.19	635.30
#3	2222.8	22924.	439.73	646.62

Sample Name: 580-28720-A-2-B Acquired: 9/24/2011 12:01:54 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	149.3	79.90	1083.	9.420	50.45
Stddev	2.2	.45	9.	.153	.09
%RSD	1.469	.5690	.8439	1.619	.1837
#1	147.0	80.41	1072.	9.582	50.37
#2	149.6	79.55	1087.	9.401	50.55
#3	151.4	79.73	1089.	9.278	50.43

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2007.1	21587.	453.86	661.95
Stddev	4.4	61.	5.93	8.44
%RSD	.22142	.28156	1.3060	1.2756
#1	2006.8	21595.	450.25	653.28
#2	2002.7	21523.	450.63	662.41
#3	2011.6	21644.	460.70	670.15

Sample Name: 580-28720-A-2-B Acquired: 9/24/2011 12:08:57 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	1.479	.8100	12.33	-.3447	.5769
Stddev	.102	.1103	.09	.0451	.0005
%RSD	6.907	13.62	.7046	13.08	.0881
#1	1.429	.9340	12.40	-.2929	.5775
#2	1.596	.7225	12.35	-.3756	.5768
#3	1.411	.7735	12.23	-.3654	.5765

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2192.3	23270.	442.58	634.47
Stddev	10.1	114.	.94	3.76
%RSD	.45981	.49023	.21168	.59329
#1	2180.7	23139.	443.57	636.49
#2	2197.7	23323.	442.46	636.78
#3	2198.5	23349.	441.70	630.12

Sample Name: 580-28720-A-3-B Acquired: 9/24/2011 12:15:50 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**620.1**	**5.337**	**391.8**	**6.308**	**35.76**
Stddev	2.7	.440	2.4	.611	.17
%RSD	.4370	8.243	.6218	9.681	.4698
#1	623.2	5.842	394.6	6.991	35.62
#2	618.2	5.135	390.1	6.117	35.72
#3	619.0	5.035	390.7	5.815	35.95

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1876.8**	**22510.**	**442.87**	**632.52**
Stddev	4.3	21.	25.01	43.01
%RSD	.22988	.09407	5.6485	6.7998
#1	1880.4	22505.	414.14	583.24
#2	1877.9	22533.	454.68	651.77
#3	1872.0	22492.	459.80	662.54

Sample Name: 580-28720-A-3-B Acquired: 9/24/2011 12:22:36 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	6.321	.0859	3.930	-.2087	.4074
Stddev	.120	.0743	.070	.0539	.0012
%RSD	1.895	86.47	1.774	25.84	.2986
#1	6.196	.1312	3.989	-.2656	.4070
#2	6.333	.0002	3.853	-.2022	.4088
#3	6.435	.1263	3.949	-.1583	.4064

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2162.1	23663.	454.37	635.04
Stddev	4.9	85.	3.49	5.27
%RSD	.22719	.36058	.76841	.82957
#1	2156.9	23620.	450.41	631.31
#2	2162.9	23607.	457.01	632.75
#3	2166.6	23761.	455.69	641.07

Sample Name: 580-28720-A-4-B Acquired: 9/24/2011 12:29:32 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	279.3	4.525	66.06	.4915	1.925
Stddev	1.8	.059	.11	.0360	.010
%RSD	.6562	1.312	.1594	7.325	.5396
#1	277.3	4.544	65.97	.5273	1.933
#2	280.7	4.573	66.04	.4920	1.929
#3	280.1	4.459	66.18	.4553	1.913

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2029.5	23914.	453.04	631.92
Stddev	11.6	104.	2.46	4.82
%RSD	.57105	.43398	.54250	.76313
#1	2018.7	23832.	454.50	630.09
#2	2027.9	23879.	454.41	637.39
#3	2041.8	24030.	450.20	628.28

Sample Name: 580-28720-A-4-B Acquired: 9/24/2011 12:36:29 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	2.646	.1001	.5997	-.3984	.0201
Stddev	.086	.0624	.0220	.0839	.0010
%RSD	3.251	62.34	3.673	21.05	5.004
#1	2.656	.0330	.6025	-.4193	.0189
#2	2.555	.1110	.5764	-.4699	.0205
#3	2.726	.1563	.6202	-.3061	.0207

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2168.2	23850.	445.96	615.75
Stddev	10.8	101.	1.36	2.24
%RSD	.49583	.42319	.30485	.36341
#1	2179.5	23939.	445.54	618.11
#2	2166.8	23871.	444.85	613.66
#3	2158.1	23740.	447.48	615.49

Sample Name: 580-28720-A-5-B Acquired: 9/24/2011 12:43:28 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	349.7	11.21	292.4	4.197	27.99
Stddev	2.2	.17	2.8	.040	.11
%RSD	.6253	1.519	.9734	.9460	.3792
#1	348.3	11.05	289.7	4.200	27.88
#2	348.6	11.19	292.0	4.155	28.00
#3	352.2	11.39	295.4	4.235	28.09

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1964.6	23929.	464.35	637.91
Stddev	1.4	35.	3.23	4.56
%RSD	.06879	.14672	.69502	.71487
#1	1964.5	23961.	460.68	641.28
#2	1963.3	23935.	466.74	639.74
#3	1966.0	23891.	465.63	632.72

Sample Name: 580-28720-A-5-B Acquired: 9/24/2011 12:50:22 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	3.477	.0982	2.990	-.4255	.3199
Stddev	.091	.2000	.030	.1209	.0018
%RSD	2.624	203.8	.9933	28.42	.5751
#1	3.393	.1545	3.001	-.2902	.3203
#2	3.574	.2639	3.012	-.4631	.3214
#3	3.465	-.1240	2.956	-.5232	.3178

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2185.8	24220.	439.73	610.08
Stddev	4.3	107.	2.30	6.02
%RSD	.19684	.44176	.52244	.98695
#1	2185.1	24106.	441.83	603.13
#2	2181.9	24234.	440.08	613.75
#3	2190.4	24319.	437.28	613.37

Sample Name: CCV Acquired: 9/24/2011 12:57:19 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.08**	**20.57**	**9.676**	**20.63**	**20.14**
Stddev	.07	.06	.120	.17	.03
%RSD	.6721	.2695	1.235	.8479	.1505
#1	10.08	20.51	9.712	20.70	20.14
#2	10.14	20.62	9.543	20.43	20.17
#3	10.01	20.57	9.774	20.76	20.11
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2022.6**	**23442.**	**439.26**	**607.61**
Stddev	4.1	14.	2.24	2.38
%RSD	.20196	.05968	.50963	.39127
#1	2017.9	23453.	436.69	606.21
#2	2024.3	23427.	440.75	606.26
#3	2025.6	23448.	440.35	610.35

Sample Name: CCB Acquired: 9/24/2011 13:06:20 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	-.0357	.0025	-.0058	-.4049	.0003
Stddev	.1559	.1107	.0616	.2154	.0012
%RSD	437.1	4342.	1060.	53.19	368.6
#1	.0683	-.1252	.0618	-.5452	-.0010
#2	.0396	.0651	-.0207	-.1569	.0011
#3	-.2150	.0678	-.0586	-.5125	.0009
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2193.1	23321.	437.99	621.75
Stddev	16.3	73.	2.45	6.63
%RSD	.74355	.31359	.55915	1.0671
#1	2181.4	23279.	440.67	629.38
#2	2186.1	23279.	435.86	617.34
#3	2211.7	23406.	437.45	618.54

Sample Name: 580-28720-A-6-B Acquired: 9/24/2011 13:13:21 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	133.6	2.270	304.1	3.207	21.03
Stddev	.6	.009	1.0	.132	.13
%RSD	.4124	.3888	.3276	4.108	.6372
#1	134.2	2.260	303.0	3.265	20.89
#2	133.6	2.276	304.2	3.300	21.06
#3	133.1	2.274	305.0	3.056	21.15

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2070.1	23109.	445.24	642.03
Stddev	2.3	64.	2.75	9.10
%RSD	.10885	.27629	.61697	1.4175
#1	2072.7	23179.	443.58	632.26
#2	2068.9	23094.	443.73	643.56
#3	2068.7	23054.	448.41	650.27

Sample Name: 580-28720-A-6-B Acquired: 9/24/2011 13:20:15 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	1.291	.0402	3.202	-.4368	.2358
Stddev	.113	.1236	.075	.0709	.0029
%RSD	8.780	307.2	2.343	16.23	1.216
#1	1.194	-.1010	3.226	-.5160	.2383
#2	1.415	.1290	3.118	-.3792	.2363
#3	1.263	.0927	3.262	-.4153	.2327

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2202.5	23205.	441.01	641.79
Stddev	12.4	121.	3.03	5.57
%RSD	.56445	.51954	.68796	.86800
#1	2194.3	23096.	441.16	636.42
#2	2196.5	23184.	443.97	647.54
#3	2216.8	23335.	437.91	641.42

Sample Name: 580-28720-A-7-B Acquired: 9/24/2011 13:27:11 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	120.9	2.186	189.1	1.711	12.43
Stddev	1.3	.086	1.3	.032	.02
%RSD	1.056	3.910	.6797	1.858	.1625
#1	121.1	2.184	188.5	1.736	12.41
#2	119.6	2.101	188.2	1.723	12.43
#3	122.1	2.272	190.6	1.675	12.45

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2073.8	22917.	451.13	652.76
Stddev	4.9	12.	5.02	10.30
%RSD	.23854	.05185	1.1117	1.5771
#1	2069.9	22906.	449.43	641.33
#2	2079.3	22930.	447.19	655.66
#3	2072.1	22914.	456.78	661.29

Sample Name: 580-28720-A-8-B Acquired: 9/24/2011 13:41:02 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**436.6**	**3.451**	**367.3**	**4.852**	**40.01**
Stddev	3.9	.091	1.7	.069	.06
%RSD	.9000	2.632	.4732	1.412	.1452
#1	434.6	3.538	367.6	4.918	40.05
#2	434.0	3.457	365.5	4.781	39.94
#3	441.1	3.357	369.0	4.858	40.04

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1940.7**	**23023.**	**449.87**	**633.20**
Stddev	12.1	83.	3.74	4.56
%RSD	.62524	.36048	.83103	.72068
#1	1927.1	22928.	450.88	628.08
#2	1944.4	23063.	445.73	634.69
#3	1950.5	23079.	453.00	636.83

Sample Name: 580-28720-A-8-B Acquired: 9/24/2011 13:47:53 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**4.469**	**.0638**	**3.771**	**-.4081**	**.4503**
Stddev	.085	.0305	.140	.1153	.0023
%RSD	1.902	47.74	3.714	28.24	.4998
#1	4.567	.0695	3.683	-.3695	.4529
#2	4.427	.0910	3.932	-.5377	.4487
#3	4.413	.0309	3.697	-.3171	.4494

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2175.7**	**23782.**	**435.99**	**602.13**
Stddev	.2	45.	3.36	1.78
%RSD	.00740	.18906	.77044	.29541
#1	2175.6	23734.	435.39	601.76
#2	2175.9	23788.	439.60	604.07
#3	2175.7	23823.	432.97	600.57

Sample Name: 580-28720-A-9-B Acquired: 9/24/2011 13:54:49 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	122.6	2.161	94.58	.5383	.4631
Stddev	1.0	.060	.40	.0700	.0029
%RSD	.7923	2.780	.4226	13.00	.6169
#1	123.0	2.092	94.91	.5970	.4599
#2	121.4	2.196	94.71	.5571	.4641
#3	123.2	2.196	94.14	.4608	.4653

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2072.3	23526.	445.04	614.42
Stddev	7.9	127.	5.52	4.84
%RSD	.38070	.54078	1.2399	.78812
#1	2064.5	23407.	450.16	613.82
#2	2072.3	23511.	439.20	609.91
#3	2080.2	23660.	445.75	619.54

Sample Name: 580-28720-A-9-B Acquired: 9/24/2011 14:01:43 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	1.340	.1113	.9483	-.3605	.0050
Stddev	.083	.0288	.0526	.0308	.0021
%RSD	6.196	25.84	5.550	8.555	42.57
#1	1.376	.0936	.9794	-.3953	.0050
#2	1.245	.1445	.8876	-.3496	.0029
#3	1.399	.0959	.9780	-.3366	.0072

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2190.7	24185.	441.04	603.80
Stddev	6.8	36.	1.54	8.03
%RSD	.31134	.14747	.34934	1.3292
#1	2189.0	24222.	440.05	594.89
#2	2185.0	24151.	442.82	610.47
#3	2198.3	24182.	440.26	606.04

Sample Name: 580-28720-A-10-B Acquired: 9/24/2011 14:08:42 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**198.0**	**3.806**	**286.0**	**28.63**	**94.42**
Stddev	.6	.154	1.8	.14	.05
%RSD	.3152	4.048	.6166	.4970	.0549
#1	197.4	3.975	287.2	28.68	94.43
#2	197.9	3.674	284.0	28.47	94.36
#3	198.6	3.768	286.9	28.75	94.46

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1924.8**	**23387.**	**441.74**	**611.49**
Stddev	2.1	58.	6.06	1.05
%RSD	.10952	.24826	1.3715	.17235
#1	1926.2	23339.	438.59	610.40
#2	1925.9	23370.	437.91	612.50
#3	1922.4	23451.	448.73	611.58

Sample Name: 580-28720-A-10-B Acquired: 9/24/2011 14:15:36 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**1.850**	**-.0755**	**2.900**	**-.1542**	**1.011**
Stddev	.190	.1015	.048	.1410	.005
%RSD	10.24	134.4	1.639	91.42	.5433
#1	2.063	-.0948	2.884	.0010	1.009
#2	1.702	.0343	2.862	-.1894	1.017
#3	1.783	-.1660	2.953	-.2744	1.006

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2182.0**	**24249.**	**431.03**	**582.41**
Stddev	6.2	32.	5.38	3.11
%RSD	.28563	.13367	1.2491	.53391
#1	2178.3	24284.	431.85	579.90
#2	2189.2	24243.	425.29	581.44
#3	2178.5	24219.	435.96	585.89

Sample Name: CCV Acquired: 9/24/2011 14:22:33 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.21**	**21.00**	**9.617**	**21.03**	**19.91**
Stddev	.22	.06	.034	.18	.07
%RSD	2.172	.2815	.3578	.8751	.3487
#1	10.07	21.06	9.588	21.24	19.97
#2	10.10	20.94	9.655	20.93	19.92
#3	10.47	20.99	9.608	20.93	19.83
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1998.0**	**23870.**	**430.81**	**582.92**
Stddev	4.2	53.	6.72	7.49
%RSD	.20981	.22085	1.5607	1.2849
#1	1995.8	23855.	423.10	574.28
#2	1995.3	23827.	435.48	587.61
#3	2002.8	23929.	433.84	586.87

Sample Name: CCB Acquired: 9/24/2011 14:31:36 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**-.0534**	**.0504**	**-.0216**	**-.4377**	**.0009**
Stddev	.1061	.0544	.0419	.1232	.0015
%RSD	198.7	108.1	193.7	28.14	172.4
#1	-.1747	.0952	-.0490	-.4917	.0009
#2	-.0079	.0661	.0266	-.2968	-.0007
#3	.0223	-.0102	-.0426	-.5247	.0024
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2142.2**	**23555.**	**439.71**	**595.42**
Stddev	22.0	149.	.55	2.17
%RSD	1.0274	.63293	.12413	.36485
#1	2131.5	23558.	439.72	594.01
#2	2127.7	23404.	439.17	594.33
#3	2167.6	23702.	440.26	597.93

Sample Name: 580-28720-A-11-B Acquired: 9/24/2011 14:41:06 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**105.6**	**6.625**	**210.3**	**3.682**	**10.82**
Stddev	.9	.165	1.5	.022	.04
%RSD	.8952	2.487	.7234	.5875	.3333
#1	106.3	6.499	211.7	3.688	10.83
#2	104.5	6.566	208.7	3.699	10.78
#3	106.1	6.812	210.5	3.657	10.85

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2079.2**	**23319.**	**454.98**	**642.86**
Stddev	4.7	52.	3.27	8.18
%RSD	.22530	.22212	.71976	1.2732
#1	2076.5	23259.	458.72	648.82
#2	2076.5	23347.	452.63	633.53
#3	2084.6	23350.	453.59	646.23

Sample Name: 580-28720-A-11-B Acquired: 9/24/2011 14:48:03 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.9403	.0810	2.148	-.4635	.1185
Stddev	.0723	.1182	.079	.0642	.0007
%RSD	7.684	146.0	3.656	13.86	.5849
#1	.8972	.1965	2.084	-.5363	.1193
#2	.9001	.0861	2.235	-.4148	.1180
#3	1.024	-.0397	2.125	-.4394	.1183

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2208.9	23571.	444.53	638.76
Stddev	11.9	86.	3.15	6.38
%RSD	.53972	.36548	.70965	.99844
#1	2197.3	23484.	448.07	645.68
#2	2208.2	23574.	442.02	637.50
#3	2221.1	23656.	443.50	633.11

Sample Name: 580-28720-A-12-B Acquired: 9/24/2011 14:55:00 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	176.6	11.85	463.3	5.777	84.01
Stddev	1.4	.42	3.7	.178	.04
%RSD	.7791	3.560	.7929	3.080	.0467
#1	178.1	12.31	467.5	5.922	83.98
#2	176.3	11.49	461.4	5.579	84.05
#3	175.4	11.76	461.0	5.830	84.00

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2009.7	22844.	455.92	644.70
Stddev	1.7	42.	7.41	13.24
%RSD	.08302	.18464	1.6258	2.0532
#1	2008.2	22890.	447.66	630.18
#2	2009.4	22808.	462.00	656.09
#3	2011.5	22834.	458.11	647.83

Sample Name: 580-28720-A-12-B Acquired: 9/24/2011 15:01:48 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	1.778	.1602	4.831	-.3394	.9184
Stddev	.162	.0559	.034	.0564	.0041
%RSD	9.107	34.90	.7070	16.62	.4456
#1	1.603	.0958	4.861	-.4029	.9203
#2	1.922	.1958	4.794	-.2950	.9212
#3	1.810	.1892	4.839	-.3203	.9137

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2197.7	23623.	437.68	628.76
Stddev	6.5	59.	14.86	19.23
%RSD	.29609	.25129	3.3951	3.0577
#1	2197.8	23619.	453.10	649.79
#2	2191.1	23565.	436.48	624.41
#3	2204.1	23684.	423.46	612.08

Sample Name: 580-28720-A-13-B Acquired: 9/24/2011 15:08:44 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	376.1	1.960	528.1	3.707	32.24
Stddev	.6	.084	2.3	.161	.10
%RSD	.1563	4.288	.4274	4.336	.3138
#1	375.9	2.056	528.9	3.529	32.34
#2	375.8	1.916	529.8	3.752	32.24
#3	376.8	1.906	525.5	3.841	32.14

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1948.2	23050.	445.52	619.18
Stddev	3.2	83.	6.77	11.54
%RSD	.16213	.35963	1.5198	1.8645
#1	1951.6	22982.	451.64	631.06
#2	1945.4	23026.	446.66	618.49
#3	1947.5	23142.	438.25	608.00

Sample Name: 580-28720-A-13-B Acquired: 9/24/2011 15:15:38 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	3.808	.0478	5.631	-.4551	.3670
Stddev	.176	.0470	.130	.0961	.0009
%RSD	4.626	98.32	2.299	21.11	.2417
#1	3.700	.0326	5.497	-.5175	.3679
#2	4.012	.0103	5.641	-.3444	.3668
#3	3.714	.1005	5.755	-.5033	.3662

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2167.6	23922.	435.32	603.74
Stddev	5.1	61.	1.86	5.97
%RSD	.23358	.25660	.42708	.98944
#1	2162.0	23857.	436.04	610.44
#2	2169.1	23929.	436.72	601.81
#3	2171.8	23979.	433.21	598.97

Sample Name: 580-28720-A-14-B Acquired: 9/24/2011 15:22:34 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**169.6**	**30.29**	**409.9**	**6.924**	**76.70**
Stddev	2.2	2.14	3.5	.612	.36
%RSD	1.285	7.051	.8595	8.835	.4719
#1	171.9	32.73	413.0	7.629	76.32
#2	167.5	29.37	406.0	6.618	76.74
#3	169.5	28.77	410.6	6.526	77.04

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1971.6**	**23796.**	**427.96**	**583.83**
Stddev	4.4	65.	24.14	36.39
%RSD	.22464	.27520	5.6417	6.2325
#1	1976.3	23862.	400.63	542.71
#2	1970.9	23795.	436.87	596.92
#3	1967.5	23731.	446.38	611.86

Sample Name: 580-28720-A-14-B Acquired: 9/24/2011 15:29:24 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	1.681	.2448	4.314	-.4998	.8535
Stddev	.117	.0827	.063	.1269	.0122
%RSD	6.933	33.78	1.462	25.39	1.424
#1	1.785	.2590	4.296	-.6228	.8656
#2	1.702	.1559	4.263	-.5071	.8536
#3	1.555	.3194	4.385	-.3694	.8413

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2141.6	24138.	435.14	594.12
Stddev	4.9	144.	2.61	5.28
%RSD	.23022	.59654	.59898	.88791
#1	2136.6	23992.	438.08	590.83
#2	2141.7	24144.	433.11	591.31
#3	2146.5	24279.	434.23	600.20

Sample Name: 580-28720-A-15-B Acquired: 9/24/2011 15:36:21 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	79.59	2.080	70.67	.5586	1.260
Stddev	.41	.079	.44	.1856	.002
%RSD	.5166	3.776	.6254	33.22	.1796
#1	80.06	2.125	70.54	.6409	1.258
#2	79.29	1.989	70.30	.3461	1.262
#3	79.42	2.125	71.16	.6888	1.260

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2083.7	24283.	440.09	596.02
Stddev	7.0	64.	10.79	10.25
%RSD	.33359	.26385	2.4509	1.7196
#1	2079.4	24319.	428.71	585.73
#2	2091.7	24320.	441.39	596.10
#3	2079.9	24209.	450.17	606.23

Sample Name: 580-28720-A-15-B Acquired: 9/24/2011 15:43:13 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.7942	-.0645	.6416	-.5682	.0136
Stddev	.0630	.0600	.0604	.0399	.0017
%RSD	7.936	92.96	9.417	7.015	12.24
#1	.8666	-.0160	.5881	-.5693	.0155
#2	.7645	-.1315	.7071	-.6074	.0130
#3	.7515	-.0459	.6296	-.5277	.0123

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2163.8	24637.	435.31	585.54
Stddev	7.6	16.	5.23	5.34
%RSD	.35294	.06643	1.2018	.91215
#1	2155.1	24620.	441.17	590.14
#2	2167.6	24653.	431.12	579.68
#3	2168.9	24638.	433.63	586.79

Sample Name: CCV Acquired: 9/24/2011 15:50:14 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.14**	**20.71**	**9.418**	**21.00**	**19.81**
Stddev	.09	.18	.159	.33	.20
%RSD	.8627	.8530	1.687	1.548	.9958
#1	10.22	20.85	9.328	20.85	19.59
#2	10.05	20.76	9.601	21.38	19.90
#3	10.17	20.51	9.324	20.78	19.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1983.9**	**23866.**	**426.39**	**577.60**
Stddev	12.0	213.	1.59	3.99
%RSD	.60494	.89434	.37329	.69021
#1	1996.8	24100.	427.57	575.79
#2	1981.8	23815.	427.03	574.85
#3	1973.1	23683.	424.58	582.18

Sample Name: CCB Acquired: 9/24/2011 15:59:16 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	-.0079	.0648	.0035	-.5070	-.0005
Stddev	.1221	.0509	.0535	.0810	.0013
%RSD	1550.	78.49	1513.	15.98	287.4
#1	-.1431	.0446	.0006	-.5398	-.0007
#2	.0252	.1227	-.0485	-.4147	-.0016
#3	.0942	.0272	.0585	-.5665	.0010
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2148.5	24119.	426.34	571.15
Stddev	6.6	75.	1.92	1.75
%RSD	.30766	.31227	.45027	.30660
#1	2141.5	24048.	428.53	571.58
#2	2149.2	24109.	425.53	572.64
#3	2154.7	24198.	424.96	569.22

Sample Name: 580-28720-A-16-B Acquired: 9/24/2011 16:06:18 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	275.3	6.416	375.1	5.265	67.51
Stddev	1.1	.122	2.3	.153	.07
%RSD	.4016	1.904	.6166	2.905	.1049
#1	274.3	6.287	373.1	5.218	67.59
#2	276.5	6.432	374.6	5.435	67.49
#3	275.2	6.530	377.7	5.140	67.45

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1993.8	23710.	448.83	621.58
Stddev	4.2	38.	2.78	3.88
%RSD	.20923	.15954	.61989	.62372
#1	1989.0	23680.	446.15	620.75
#2	1996.5	23752.	448.64	618.19
#3	1995.9	23696.	451.71	625.81

Sample Name: 580-28720-A-16-B Acquired: 9/24/2011 16:13:06 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	2.672	.1926	3.914	-.3318	.7486
Stddev	.143	.0417	.044	.0824	.0036
%RSD	5.352	21.63	1.132	24.82	.4850
#1	2.657	.2312	3.964	-.3191	.7521
#2	2.822	.1484	3.898	-.4198	.7489
#3	2.537	.1983	3.880	-.2566	.7448

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2175.4	23814.	445.99	618.57
Stddev	14.2	183.	5.30	3.94
%RSD	.65055	.76918	1.1873	.63758
#1	2163.5	23656.	451.17	620.91
#2	2171.6	23772.	446.21	620.78
#3	2191.1	24015.	440.58	614.01

Sample Name: 580-28720-A-17-B Acquired: 9/24/2011 16:20:04 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**89.88**	**2.938**	**137.7**	**2.073**	**8.053**
Stddev	.48	.081	.8	.103	.042
%RSD	.5343	2.744	.5655	4.969	.5171
#1	90.01	2.847	138.5	2.131	8.096
#2	89.34	2.967	136.9	1.954	8.050
#3	90.27	3.001	137.7	2.134	8.012

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2091.2**	**23289.**	**450.96**	**637.89**
Stddev	16.9	179.	3.72	7.04
%RSD	.80981	.76759	.82513	1.1031
#1	2074.5	23103.	455.26	644.79
#2	2090.7	23306.	448.94	630.73
#3	2108.3	23459.	448.70	638.16

Sample Name: 580-28720-A-17-B Acquired: 9/24/2011 16:26:56 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.7954	.0798	1.328	-.3868	.0900
Stddev	.1922	.0465	.073	.0329	.0020
%RSD	24.16	58.27	5.463	8.503	2.266
#1	.7345	.0701	1.256	-.3499	.0912
#2	1.011	.1303	1.328	-.4131	.0912
#3	.6410	.0389	1.401	-.3973	.0877

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2212.8	23611.	444.28	625.79
Stddev	37.6	341.	2.23	5.18
%RSD	1.6971	1.4441	.50303	.82832
#1	2187.8	23436.	446.85	625.15
#2	2194.7	23392.	442.86	620.96
#3	2256.0	24003.	443.12	631.27

Sample Name: CCV Acquired: 9/24/2011 16:33:51 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.38**	**21.15**	**10.02**	**20.41**	**20.20**
Stddev	.20	.37	.04	.11	.14
%RSD	1.907	1.738	.4393	.5609	.6759
#1	10.60	20.75	9.995	20.45	20.33
#2	10.23	21.48	10.07	20.49	20.22
#3	10.30	21.22	10.000	20.28	20.06
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2017.0**	**23127.**	**439.20**	**622.58**
Stddev	9.7	94.	4.65	6.35
%RSD	.47949	.40768	1.0597	1.0206
#1	2005.8	23033.	444.07	628.58
#2	2022.0	23125.	438.75	623.26
#3	2023.2	23222.	434.79	615.92

Sample Name: CCB Acquired: 9/24/2011 16:42:52 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0401**	**.0283**	**.0141**	**-.3868**	**.0000**
Stddev	.0818	.0437	.0743	.0779	.000
%RSD	204.1	154.4	527.1	20.14	1478.
#1	.1287	.0224	-.0054	-.4767	.0003
#2	-.0323	.0746	.0962	-.3392	-.0004
#3	.0238	-.0121	-.0485	-.3444	.0000
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2202.5**	**23987.**	**432.87**	**606.79**
Stddev	2.4	66.	2.16	1.19
%RSD	.10898	.27511	.49867	.19664
#1	2204.1	23928.	431.26	608.13
#2	2203.6	23976.	432.02	605.86
#3	2199.7	24058.	435.32	606.36

Sample Name: MB 580-96028/21-A Acquired: 9/24/2011 16:52:22 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.1168	.0015	-.0006	-.3618	.0032
Stddev	.0930	.1205	.0473	.0979	.0007
%RSD	79.63	8180.	7846.	27.06	22.31
#1	.1705	-.1230	-.0148	-.3601	.0037
#2	.1705	.0098	.0522	-.4605	.0035
#3	.0094	.1176	-.0392	-.2647	.0024

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2176.6	24221.	440.25	601.22
Stddev	3.6	30.	2.93	3.04
%RSD	.16719	.12336	.66461	.50614
#1	2179.1	24187.	443.10	603.60
#2	2172.4	24241.	440.41	602.27
#3	2178.3	24236.	437.25	597.79

Sample Name: LCS 580-96028/22-A Acquired: 9/24/2011 16:59:22 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**3.853**	**20.15**	**20.57**	**19.97**	**18.81**
Stddev	.206	.22	.11	.02	.06
%RSD	5.356	1.111	.5187	.1066	.3174
#1	3.896	20.40	20.60	19.99	18.87
#2	3.628	19.98	20.66	19.94	18.76
#3	4.034	20.07	20.45	19.97	18.81

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1996.1**	**23849.**	**439.19**	**593.09**
Stddev	3.4	67.	5.19	6.15
%RSD	.16837	.27962	1.1807	1.0375
#1	1993.6	23772.	433.58	586.13
#2	1999.9	23886.	443.80	597.79
#3	1994.8	23889.	440.21	595.36

Sample Name: LCSD 580-96028/23-A Acquired: 9/24/2011 17:05:55 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**3.772**	**20.09**	**20.21**	**20.37**	**18.71**
Stddev	.029	.29	.18	.20	.19
%RSD	.7621	1.439	.8958	.9744	.9976
#1	3.804	20.03	20.39	20.49	18.90
#2	3.761	19.84	20.21	20.14	18.71
#3	3.749	20.40	20.03	20.48	18.53

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1965.8**	**23911.**	**434.49**	**580.31**
Stddev	19.7	274.	4.97	6.91
%RSD	1.0041	1.1463	1.1431	1.1915
#1	1945.4	23620.	429.85	574.15
#2	1967.2	23948.	439.73	587.79
#3	1984.8	24164.	433.90	579.00

Sample Name: 580-28720-A-18-E sd Acquired: 9/24/2011 17:19:10 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**48.48**	**7.746**	**98.69**	**2.306**	**25.42**
Stddev	.03	.153	.48	.078	.12
%RSD	.0619	1.971	.4856	3.397	.4806
#1	48.46	7.779	98.67	2.396	25.53
#2	48.52	7.580	99.18	2.258	25.43
#3	48.47	7.880	98.22	2.264	25.29

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2026.9**	**24555.**	**438.00**	**588.12**
Stddev	3.6	42.	4.96	11.28
%RSD	.17578	.17162	1.1330	1.9187
#1	2023.3	24552.	442.54	600.00
#2	2027.0	24515.	438.76	586.83
#3	2030.5	24599.	432.70	577.54

Sample Name: 580-28720-A-18-E Acquired: 9/24/2011 17:26:07 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**240.7**	**36.30**	**462.4**	**12.99**	**121.1**
Stddev	.4	.35	2.8	.27	.2
%RSD	.1696	.9600	.6039	2.096	.1748
#1	241.2	36.62	465.7	13.18	121.3
#2	240.5	36.34	460.9	13.11	121.0
#3	240.4	35.93	460.7	12.68	120.9

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1913.5**	**24059.**	**449.14**	**604.87**
Stddev	2.3	65.	2.17	4.57
%RSD	.12182	.26846	.48247	.75539
#1	1910.9	23984.	447.43	603.25
#2	1913.9	24096.	448.41	601.34
#3	1915.5	24096.	451.58	610.03

Sample Name: 580-28720-A-18-F DU Acquired: 9/24/2011 17:32:57 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**246.6**	**37.46**	**476.6**	**13.26**	**126.0**
Stddev	1.4	.69	1.3	.17	.1
%RSD	.5616	1.834	.2718	1.250	.1000
#1	247.7	38.25	477.7	13.44	126.1
#2	245.0	37.16	475.2	13.11	125.9
#3	247.0	36.97	477.1	13.24	125.9

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1913.3**	**23848.**	**451.66**	**610.78**
Stddev	3.7	11.	10.43	11.39
%RSD	.19276	.04566	2.3101	1.8652
#1	1909.1	23836.	440.52	598.71
#2	1916.3	23857.	453.26	612.29
#3	1914.4	23850.	461.20	621.35

Sample Name: 580-28720-A-18-G MS Acquired: 9/24/2011 17:39:46 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**254.1**	**59.06**	**499.7**	**29.14**	**138.3**
Stddev	1.0	.67	1.5	.24	.3
%RSD	.4095	1.137	.3039	.8333	.2024
#1	253.7	58.53	499.1	28.98	138.5
#2	255.3	58.83	501.4	29.01	138.4
#3	253.3	59.81	498.5	29.42	137.9

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1864.5**	**23444.**	**458.31**	**620.60**
Stddev	3.4	31.	2.74	6.50
%RSD	.18082	.13249	.59822	1.0480
#1	1868.0	23479.	459.65	622.74
#2	1864.1	23432.	460.12	625.76
#3	1861.3	23421.	455.15	613.29

Sample Name: 580-28720-A-18-H MSD Acquired: 9/24/2011 17:46:37 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**258.1**	**58.76**	**508.4**	**28.72**	**143.6**
Stddev	1.1	.58	2.8	.38	.5
%RSD	.4443	.9803	.5537	1.313	.3302
#1	259.0	58.10	511.1	28.31	144.1
#2	256.8	59.04	505.5	29.05	143.2
#3	258.4	59.14	508.5	28.80	143.4

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1881.3**	**23345.**	**449.43**	**620.54**
Stddev	8.6	67.	4.43	8.11
%RSD	.45978	.28823	.98584	1.3065
#1	1871.3	23268.	454.54	629.88
#2	1886.4	23379.	446.61	615.32
#3	1886.3	23389.	447.14	616.41

Sample Name: 580-28720-A-18-E pds Acquired: 9/24/2011 17:53:27 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**226.6**	**51.62**	**467.8**	**30.74**	**131.7**
Stddev	2.2	.66	1.9	.08	.1
%RSD	.9797	1.280	.4089	.2574	.1079
#1	225.9	52.38	467.5	30.81	131.8
#2	229.0	51.31	469.8	30.65	131.6
#3	224.8	51.18	466.0	30.76	131.8

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1882.6**	**22991.**	**454.36**	**630.44**
Stddev	3.2	25.	.36	6.96
%RSD	.16902	.11058	.07999	1.1036
#1	1883.6	22962.	454.41	622.59
#2	1885.2	23004.	454.69	635.84
#3	1879.1	23008.	453.97	632.90

Sample Name: CCV Acquired: 9/24/2011 18:00:17 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.18**	**20.62**	**9.689**	**20.26**	**19.88**
Stddev	.12	.55	.038	.58	.07
%RSD	1.213	2.663	.3959	2.870	.3661
#1	10.29	19.99	9.676	19.59	19.96
#2	10.20	20.95	9.659	20.55	19.87
#3	10.05	20.93	9.732	20.65	19.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2022.3**	**23164.**	**434.96**	**603.37**
Stddev	12.8	103.	12.91	11.24
%RSD	.63317	.44637	2.9674	1.8624
#1	2007.6	23045.	449.45	615.99
#2	2031.3	23224.	424.68	594.44
#3	2027.9	23223.	430.76	599.68

Sample Name: CCB Acquired: 9/24/2011 18:09:17 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.0247	.0106	-.0218	-.3398	.0046
Stddev	.1315	.0342	.0101	.0434	.0042
%RSD	531.4	321.5	46.51	12.77	92.50
#1	-.0812	.0472	-.0333	-.3858	.0030
#2	-.0165	.0053	-.0176	-.3339	.0093
#3	.1719	-.0206	-.0144	-.2997	.0013
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2200.1	23431.	433.98	612.26
Stddev	8.8	55.	4.17	2.58
%RSD	.39839	.23453	.95977	.42144
#1	2197.8	23389.	438.27	615.23
#2	2192.7	23411.	433.70	610.62
#3	2209.7	23493.	429.95	610.92

Sample Name: 580-28720-A-18-E Acquired: 9/24/2011 18:16:18 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	2.346	.4484	5.306	-.2532	1.363
Stddev	.222	.2067	.071	.1082	.005
%RSD	9.460	46.10	1.340	42.74	.3390
#1	2.361	.5583	5.387	-.1317	1.358
#2	2.116	.2100	5.276	-.3392	1.365
#3	2.559	.5768	5.255	-.2888	1.367

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2173.2	23944.	436.72	612.20
Stddev	5.0	73.	1.74	6.29
%RSD	.22996	.30563	.39922	1.0268
#1	2176.0	24027.	435.61	607.06
#2	2167.4	23916.	435.81	610.32
#3	2176.1	23888.	438.73	619.21

Sample Name: 580-28720-A-19-B Acquired: 9/24/2011 18:23:12 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**217.0**	**2.634**	**390.8**	**2.757**	**12.60**
Stddev	2.9	.310	5.4	.407	.04
%RSD	1.346	11.75	1.383	14.76	.3077
#1	218.2	2.895	395.6	2.817	12.64
#2	213.6	2.292	384.9	2.324	12.59
#3	219.1	2.716	391.7	3.131	12.57

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2010.9**	**23745.**	**464.27**	**642.22**
Stddev	7.6	108.	24.94	32.97
%RSD	.37698	.45352	5.3710	5.1337
#1	2005.4	23641.	454.11	626.37
#2	2007.7	23737.	492.68	680.12
#3	2019.5	23856.	446.01	620.17

Sample Name: 580-28720-A-20-B Acquired: 9/24/2011 18:37:04 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	205.7	4.284	265.3	5.249	30.06
Stddev	1.4	.273	1.1	.278	.24
%RSD	.6805	6.377	.4182	5.296	.7851
#1	204.1	3.969	264.0	4.951	30.28
#2	206.6	4.430	265.8	5.293	30.09
#3	206.5	4.453	266.0	5.502	29.81

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2001.9	23742.	463.45	635.32
Stddev	18.9	199.	13.74	22.50
%RSD	.94581	.83696	2.9653	3.5412
#1	1982.2	23550.	479.15	661.21
#2	2003.7	23729.	457.63	624.24
#3	2019.9	23947.	453.58	620.50

Sample Name: 580-28720-A-20-B Acquired: 9/24/2011 18:43:59 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	2.150	-.0160	2.636	-.2615	.3274
Stddev	.204	.1632	.009	.0122	.0015
%RSD	9.503	1021.	.3260	4.671	.4594
#1	2.004	.1039	2.645	-.2483	.3273
#2	2.063	.0500	2.636	-.2639	.3259
#3	2.383	-.2018	2.628	-.2723	.3289

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2144.2	24166.	437.73	596.71
Stddev	5.5	120.	8.10	14.91
%RSD	.25507	.49461	1.8494	2.4985
#1	2137.9	24049.	446.28	613.90
#2	2147.2	24162.	430.19	587.27
#3	2147.5	24288.	436.72	588.96

Sample Name: 580-28720-A-21-B Acquired: 9/24/2011 18:50:56 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**521.5**	**4.010**	**676.4**	**8.943**	**106.9**
Stddev	4.0	.085	1.8	.080	.5
%RSD	.7715	2.117	.2635	.8912	.4922
#1	517.0	3.950	676.3	8.865	107.2
#2	523.0	3.974	678.2	9.024	107.3
#3	524.6	4.107	674.6	8.939	106.3

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1901.0**	**23170.**	**442.23**	**600.69**
Stddev	6.3	141.	6.68	5.10
%RSD	.33015	.60669	1.5115	.84903
#1	1899.1	23054.	436.45	594.88
#2	1895.9	23130.	440.69	604.44
#3	1908.0	23326.	449.55	602.74

Sample Name: 580-28720-A-21-B Acquired: 9/24/2011 18:57:45 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	5.309	.1727	7.448	-.2195	1.190
Stddev	.186	.1518	.039	.2126	.004
%RSD	3.510	87.90	.5251	96.89	.3650
#1	5.094	.3063	7.492	.0260	1.188
#2	5.405	.2042	7.416	-.3467	1.187
#3	5.428	.0076	7.438	-.3377	1.195

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2143.7	24666.	435.46	589.42
Stddev	6.0	133.	3.22	7.05
%RSD	.28200	.53780	.73938	1.1954
#1	2136.7	24513.	433.31	582.48
#2	2147.5	24753.	433.91	589.21
#3	2146.9	24731.	439.16	596.56

Sample Name: 580-28720-A-22-B Acquired: 9/24/2011 19:04:42 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	231.3	3.228	266.0	1.972	15.17
Stddev	2.1	.095	2.4	.105	.01
%RSD	.8892	2.956	.8887	5.314	.0870
#1	230.6	3.337	264.8	2.077	15.17
#2	229.7	3.162	264.5	1.867	15.16
#3	233.7	3.183	268.7	1.973	15.18

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2010.5	24774.	448.82	589.44
Stddev	2.5	75.	4.94	4.62
%RSD	.12188	.30233	1.1007	.78316
#1	2008.7	24829.	448.00	587.03
#2	2009.5	24805.	444.33	586.53
#3	2013.3	24689.	454.11	594.76

Sample Name: 580-28720-A-22-B Acquired: 9/24/2011 19:11:39 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	2.311	.1188	2.738	-.4659	.1756
Stddev	.145	.1335	.083	.1185	.0004
%RSD	6.289	112.4	3.024	25.44	.2386
#1	2.379	.2033	2.823	-.4220	.1751
#2	2.410	.1882	2.733	-.3756	.1760
#3	2.144	-.0352	2.658	-.6001	.1757

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2168.9	24722.	453.07	607.78
Stddev	2.4	19.	19.05	22.73
%RSD	.10967	.07804	4.2039	3.7402
#1	2168.7	24728.	443.26	593.12
#2	2171.4	24701.	440.92	596.26
#3	2166.7	24738.	475.02	633.97

Sample Name: CCV Acquired: 9/24/2011 19:18:37 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.32**	**20.87**	**9.593**	**20.79**	**19.68**
Stddev	.20	.62	.067	.38	.01
%RSD	1.919	2.980	.7013	1.831	.0388
#1	10.44	21.58	9.546	21.17	19.69
#2	10.09	20.54	9.563	20.79	19.69
#3	10.42	20.47	9.670	20.41	19.68
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1977.6**	**23981.**	**433.50**	**575.06**
Stddev	4.3	82.	2.26	12.00
%RSD	.21910	.34000	.52058	2.0859
#1	1982.3	24045.	432.23	561.61
#2	1976.7	24009.	432.16	578.94
#3	1973.8	23889.	436.10	584.64

Sample Name: CCB Acquired: 9/24/2011 19:27:40 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	-.1272	.1125	-.0445	-.3744	.0014
Stddev	.1203	.1170	.0276	.1121	.0051
%RSD	94.54	104.0	62.09	29.95	364.1
#1	-.1445	-.0076	-.0763	-.2494	-.0030
#2	.0008	.2261	-.0301	-.4663	.0002
#3	-.2379	.1191	-.0270	-.4074	.0070
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2152.5	24067.	427.43	572.45
Stddev	7.3	72.	3.32	2.69
%RSD	.33797	.30121	.77731	.46913
#1	2144.1	23984.	430.07	570.51
#2	2156.1	24120.	423.70	571.34
#3	2157.3	24095.	428.52	575.52

Sample Name: 580-28720-A-23-B Acquired: 9/24/2011 19:37:12 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	394.3	11.82	367.4	6.620	81.61
Stddev	.7	.36	1.7	.138	.19
%RSD	.1847	3.036	.4736	2.079	.2290
#1	394.9	12.23	367.6	6.778	81.52
#2	393.5	11.57	365.6	6.521	81.48
#3	394.6	11.66	369.1	6.563	81.82

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1906.3	23604.	453.40	615.97
Stddev	1.5	51.	9.39	13.39
%RSD	.07914	.21407	2.0714	2.1733
#1	1906.3	23593.	442.99	602.46
#2	1904.7	23659.	461.24	629.23
#3	1907.7	23560.	455.97	616.23

Sample Name: 580-28720-A-23-B Acquired: 9/24/2011 19:44:14 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	4.189	.1508	3.968	-.3215	.9332
Stddev	.105	.0679	.032	.0950	.0131
%RSD	2.517	45.04	.7981	29.55	1.405
#1	4.304	.1155	3.931	-.3983	.9232
#2	4.166	.1078	3.989	-.3509	.9480
#3	4.097	.2291	3.983	-.2152	.9283

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2158.7	24257.	429.23	580.71
Stddev	1.4	21.	21.46	24.56
%RSD	.06581	.08499	4.9992	4.2295
#1	2159.4	24280.	404.47	553.06
#2	2157.0	24244.	440.89	589.08
#3	2159.6	24245.	442.33	599.99

Sample Name: 580-28720-A-24-B Acquired: 9/24/2011 19:58:04 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.5929	.0357	.9308	-.4680	.0294
Stddev	.0410	.0297	.0922	.1225	.0026
%RSD	6.923	83.21	9.910	26.17	8.934
#1	.5905	.0084	.8788	-.3923	.0291
#2	.5531	.0673	.8763	-.6093	.0269
#3	.6351	.0314	1.037	-.4024	.0321

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2172.5	24138.	434.14	584.20
Stddev	2.4	15.	3.03	5.39
%RSD	.10907	.06009	.69775	.92221
#1	2169.9	24139.	434.12	587.96
#2	2173.1	24124.	431.13	578.03
#3	2174.5	24153.	437.18	586.61

Sample Name: 580-28720-A-25-B Acquired: 9/24/2011 20:05:04 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	393.0	8.786	400.7	6.482	43.73
Stddev	4.7	.222	3.3	.364	.09
%RSD	1.197	2.521	.8274	5.613	.1954
#1	398.4	9.037	404.4	6.866	43.63
#2	390.0	8.620	399.8	6.439	43.79
#3	390.5	8.700	398.0	6.142	43.75

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1934.7	24028.	448.05	604.13
Stddev	2.7	38.	16.38	20.02
%RSD	.13956	.15902	3.6556	3.3133
#1	1931.8	24066.	429.15	581.37
#2	1937.1	23990.	456.72	618.99
#3	1935.2	24028.	458.26	612.03

Sample Name: 580-28720-A-25-B Acquired: 9/24/2011 20:11:56 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	3.720	.0423	4.122	-.3166	.4963
Stddev	.120	.1490	.099	.1100	.0062
%RSD	3.216	351.9	2.397	34.73	1.244
#1	3.655	.1868	4.210	-.2015	.4897
#2	3.858	.0512	4.142	-.3278	.4973
#3	3.647	-.1109	4.015	-.4206	.5019

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2136.8	24363.	444.05	592.57
Stddev	3.7	89.	.38	4.67
%RSD	.17131	.36615	.08512	.78854
#1	2135.0	24411.	444.34	596.21
#2	2134.3	24260.	444.19	594.21
#3	2141.0	24417.	443.62	587.30

Sample Name: 580-28720-A-26-B Acquired: 9/24/2011 20:18:54 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**51.87**	**1.639**	**129.3**	**1.615**	**3.286**
Stddev	.40	.089	.5	.257	.011
%RSD	.7672	5.437	.3724	15.89	.3197
#1	51.49	1.543	129.9	1.453	3.298
#2	51.84	1.720	129.0	1.911	3.278
#3	52.28	1.655	129.1	1.482	3.282

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2037.3**	**24168.**	**437.78**	**583.24**
Stddev	6.8	111.	5.58	15.16
%RSD	.33534	.45907	1.2754	2.5993
#1	2029.4	24041.	444.23	597.34
#2	2041.6	24211.	434.55	567.21
#3	2040.8	24250.	434.55	585.19

Sample Name: 580-28720-A-26-B Acquired: 9/24/2011 20:25:52 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.5537	-.0525	1.260	-.5263	.0343
Stddev	.1576	.0894	.076	.0284	.0013
%RSD	28.47	170.5	6.032	5.389	3.895
#1	.5044	.0007	1.285	-.4972	.0357
#2	.7301	-.1557	1.320	-.5539	.0330
#3	.4267	-.0023	1.174	-.5277	.0343

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2159.4	24748.	437.94	581.95
Stddev	6.3	31.	3.74	2.17
%RSD	.29285	.12437	.85495	.37334
#1	2152.8	24725.	439.05	581.54
#2	2160.2	24736.	433.77	580.02
#3	2165.4	24783.	441.00	584.30

Sample Name: 580-28720-A-27-B Acquired: 9/24/2011 20:32:51 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**345.7**	**6.247**	**287.6**	**4.815**	**42.95**
Stddev	2.0	.167	2.2	.172	.25
%RSD	.5852	2.679	.7635	3.568	.5922
#1	348.0	6.434	290.2	4.830	43.24
#2	344.8	6.111	286.2	4.979	42.84
#3	344.3	6.196	286.5	4.636	42.77

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1925.2**	**24491.**	**445.06**	**585.70**
Stddev	15.4	107.	6.95	3.57
%RSD	.79807	.43754	1.5615	.61012
#1	1907.4	24369.	437.81	581.69
#2	1933.4	24532.	445.71	586.85
#3	1934.7	24572.	451.67	588.56

Sample Name: 580-28720-A-27-B Acquired: 9/24/2011 20:39:46 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	3.704	.1983	3.133	-.3828	.5148
Stddev	.074	.0247	.072	.1160	.0016
%RSD	2.003	12.46	2.287	30.31	.3160
#1	3.642	.1908	3.215	-.3470	.5133
#2	3.683	.2259	3.081	-.2888	.5147
#3	3.786	.1782	3.105	-.5125	.5165

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2116.4	24839.	427.67	562.49
Stddev	2.9	42.	.94	.51
%RSD	.13906	.16815	.21881	.09135
#1	2113.0	24791.	426.75	563.01
#2	2117.8	24864.	427.64	561.98
#3	2118.4	24861.	428.62	562.48

Sample Name: CCV Acquired: 9/24/2011 20:46:46 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.11**	**20.62**	**9.282**	**21.01**	**19.50**
Stddev	.08	.11	.178	.10	.02
%RSD	.7542	.5492	1.915	.4995	.1165
#1	10.19	20.49	9.437	20.97	19.53
#2	10.11	20.66	9.088	20.93	19.49
#3	10.04	20.71	9.321	21.13	19.50
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1976.9**	**24391.**	**431.09**	**562.84**
Stddev	1.7	37.	3.62	2.25
%RSD	.08797	.15140	.84039	.40003
#1	1978.6	24353.	432.03	564.37
#2	1976.9	24427.	434.15	560.25
#3	1975.1	24395.	427.09	563.89

Sample Name: CCB Acquired: 9/24/2011 20:55:49 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	-.0659	.1189	-.0008	-.4931	.0015
Stddev	.2109	.0986	.0182	.1164	.0018
%RSD	320.3	82.88	2145.	23.62	125.1
#1	.0971	.1044	-.0029	-.5450	.0019
#2	-.3041	.2240	-.0179	-.3597	-.0005
#3	.0094	.0285	.0183	-.5746	.0031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2151.5	24451.	436.28	573.85
Stddev	1.0	40.	4.10	1.39
%RSD	.04772	.16185	.93898	.24249
#1	2150.4	24489.	433.48	574.13
#2	2152.1	24410.	440.98	575.08
#3	2152.1	24456.	434.38	572.34

Sample Name: 580-28720-A-28-B Acquired: 9/24/2011 21:02:50 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	408.2	9.446	393.5	7.493	73.08
Stddev	2.4	.173	2.6	.207	.13
%RSD	.5796	1.830	.6520	2.757	.1811
#1	408.6	9.538	395.4	7.637	73.09
#2	405.7	9.246	390.6	7.256	73.21
#3	410.3	9.552	394.5	7.586	72.94

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1890.1	24098.	449.59	601.48
Stddev	3.0	53.	1.76	2.44
%RSD	.15847	.21909	.39110	.40574
#1	1890.9	24057.	449.60	601.23
#2	1886.8	24080.	447.83	599.17
#3	1892.6	24158.	451.34	604.03

Sample Name: 580-28720-A-28-B Acquired: 9/24/2011 21:09:50 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**4.145**	**.0890**	**4.165**	**.6696**	**.8096**
Stddev	.127	.0915	.095	1.772	.0036
%RSD	3.064	102.8	2.273	264.7	.4472
#1	4.288	.0015	4.272	-.2835	.8058
#2	4.102	.0815	4.094	2.715	.8130
#3	4.045	.1841	4.128	-.4225	.8100

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2142.4**	**24454.**	**424.00**	**571.01**
Stddev	5.9	20.	34.37	43.17
%RSD	.27489	.08377	8.1066	7.5595
#1	2137.1	24467.	385.76	522.18
#2	2141.3	24431.	452.33	604.06
#3	2148.8	24465.	433.90	586.80

Sample Name: 580-28720-A-29-B Acquired: 9/24/2011 21:16:50 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	368.9	9.121	374.4	4.280	53.46
Stddev	2.2	.126	1.3	.138	.02
%RSD	.5880	1.383	.3414	3.229	.0463
#1	369.0	9.052	375.2	4.269	53.48
#2	366.7	9.045	372.9	4.148	53.44
#3	371.1	9.267	375.0	4.424	53.47

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1914.2	23973.	448.71	610.45
Stddev	.7	38.	1.25	5.80
%RSD	.03839	.15685	.27910	.95035
#1	1913.8	23945.	450.03	614.46
#2	1913.7	23959.	448.56	603.80
#3	1915.0	24016.	447.54	613.09

Sample Name: 580-28720-A-29-B Acquired: 9/24/2011 21:23:42 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	3.587	.0325	3.965	-.3278	.6081
Stddev	.079	.0626	.123	.0868	.0035
%RSD	2.208	192.7	3.103	26.48	.5780
#1	3.499	-.0397	3.923	-.3066	.6051
#2	3.608	.0644	4.103	-.2536	.6120
#3	3.653	.0728	3.868	-.4232	.6071

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2144.2	24306.	442.99	602.85
Stddev	6.8	111.	12.75	13.68
%RSD	.31675	.45527	2.8793	2.2697
#1	2145.1	24349.	444.58	604.68
#2	2137.0	24180.	454.88	615.53
#3	2150.5	24389.	429.52	588.35

Sample Name: 580-28720-A-30-B Acquired: 9/24/2011 21:30:40 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	393.4	33.72	761.2	24.68	103.2
Stddev	2.2	.51	1.4	.33	.3
%RSD	.5542	1.513	.1838	1.329	.3035
#1	392.1	34.05	762.3	24.90	103.4
#2	395.9	33.13	761.6	24.31	103.3
#3	392.2	33.97	759.6	24.84	102.8

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1881.0	23067.	456.13	619.38
Stddev	3.2	57.	1.18	7.28
%RSD	.16757	.24630	.25850	1.1758
#1	1879.1	23007.	457.35	611.85
#2	1879.3	23073.	454.99	626.38
#3	1884.7	23120.	456.05	619.92

Sample Name: 580-28720-A-30-B Acquired: 9/24/2011 21:37:37 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**4.177**	**.3910**	**8.753**	**-.3121**	**1.203**
Stddev	.028	.1051	.181	.0239	.000
%RSD	.6589	26.89	2.065	7.672	.0213
#1	4.200	.3311	8.930	-.2984	1.204
#2	4.185	.5124	8.761	-.2982	1.203
#3	4.147	.3295	8.569	-.3398	1.203

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2164.5**	**24450.**	**442.82**	**605.50**
Stddev	3.8	72.	4.38	11.19
%RSD	.17762	.29285	.98894	1.8487
#1	2161.0	24371.	447.86	618.31
#2	2164.0	24470.	440.65	600.55
#3	2168.6	24510.	439.95	597.63

Sample Name: 580-28720-A-31-B Acquired: 9/24/2011 21:45:03 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	348.2	19.64	747.7	24.20	85.51
Stddev	2.5	.12	2.9	.05	.29
%RSD	.7084	.6278	.3895	.1998	.3401
#1	349.1	19.50	748.6	24.14	85.18
#2	345.4	19.75	744.4	24.23	85.58
#3	350.0	19.66	750.0	24.23	85.75

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1935.6	23631.	460.34	626.22
Stddev	.5	23.	6.56	4.98
%RSD	.02488	.09856	1.4257	.79501
#1	1936.2	23648.	467.91	631.33
#2	1935.3	23640.	456.24	621.39
#3	1935.5	23604.	456.88	625.94

Sample Name: 580-28720-A-31-B Acquired: 9/24/2011 21:52:00 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	3.694	.3904	9.342	-.3149	.9975
Stddev	.409	.0065	1.198	.0247	.0088
%RSD	11.06	1.660	12.82	7.829	.8777
#1	4.147	.3829	10.72	-.2941	.9917
#2	3.582	.3950	8.662	-.3422	.9932
#3	3.354	.3931	8.639	-.3086	1.008

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2142.5	24040.	436.49	591.26
Stddev	3.9	7.	5.09	7.43
%RSD	.18112	.02880	1.1666	1.2573
#1	2142.1	24048.	442.01	599.62
#2	2146.6	24034.	431.98	585.38
#3	2138.9	24039.	435.48	588.79

Sample Name: 580-28720-A-32-B Acquired: 9/24/2011 21:58:58 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**468.7**	**6.180**	**452.8**	**10.47**	**89.19**
Stddev	2.6	.138	1.4	.15	.67
%RSD	.5645	2.227	.3200	1.444	.7538
#1	467.1	6.041	454.5	10.32	89.90
#2	467.3	6.316	452.3	10.47	89.09
#3	471.8	6.183	451.7	10.62	88.57

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1886.0**	**23520.**	**450.40**	**608.08**
Stddev	9.0	174.	2.48	2.37
%RSD	.47595	.73848	.55086	.38965
#1	1877.6	23342.	452.41	607.69
#2	1885.0	23529.	447.63	610.62
#3	1895.4	23690.	451.18	605.93

Sample Name: 580-28720-A-32-B Acquired: 9/24/2011 22:05:58 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	5.344	.0923	5.210	-.4101	.9565
Stddev	.855	.0362	.968	.1081	.0018
%RSD	16.00	39.20	18.58	26.36	.1928
#1	6.303	.1328	6.324	-.3833	.9574
#2	5.066	.0811	4.730	-.5291	.9576
#3	4.662	.0631	4.576	-.3179	.9543

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2158.0	24885.	441.41	590.44
Stddev	5.3	79.	2.42	2.33
%RSD	.24399	.31796	.54742	.39513
#1	2163.6	24820.	444.13	592.27
#2	2153.1	24862.	440.59	591.23
#3	2157.3	24973.	439.52	587.81

Sample Name: CCV Acquired: 9/24/2011 22:12:58 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.15**	**20.27**	**9.199**	**20.64**	**19.15**
Stddev	.05	.15	.153	.40	.06
%RSD	.4558	.7589	1.664	1.958	.3300
#1	10.13	20.14	9.375	20.48	19.15
#2	10.21	20.24	9.121	20.34	19.21
#3	10.13	20.44	9.101	21.10	19.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1976.1**	**24509.**	**435.23**	**571.47**
Stddev	4.4	52.	5.22	8.52
%RSD	.22169	.21147	1.2000	1.4907
#1	1980.7	24505.	438.21	574.32
#2	1971.9	24459.	438.28	578.20
#3	1975.7	24563.	429.20	561.89

Sample Name: 580-28720-A-33-B Acquired: 9/24/2011 22:31:34 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**33.42**	**21.08**	**1019.**	**16.20**	**10.89**
Stddev	.38	.32	9.	.18	.01
%RSD	1.146	1.529	.8768	1.126	.0908
#1	33.85	21.01	1029.	16.15	10.90
#2	33.12	20.80	1015.	16.04	10.89
#3	33.29	21.43	1012.	16.40	10.89

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2041.4**	**23548.**	**442.44**	**579.67**
Stddev	9.1	58.	7.27	12.03
%RSD	.44778	.24542	1.6432	2.0759
#1	2031.0	23483.	450.20	585.41
#2	2048.2	23592.	441.34	587.76
#3	2044.9	23571.	435.79	565.84

Sample Name: 580-28720-A-33-B Acquired: 9/24/2011 22:38:23 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.5051	.3621	13.70	-.2569	.1402
Stddev	.0639	.0959	1.53	.0774	.0049
%RSD	12.64	26.48	11.15	30.12	3.508
#1	.5750	.4044	15.47	-.1681	.1348
#2	.4499	.4296	12.83	-.2926	.1414
#3	.4902	.2524	12.81	-.3099	.1444

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2161.1	24679.	438.02	596.67
Stddev	5.2	66.	2.79	3.56
%RSD	.24162	.26708	.63795	.59638
#1	2159.7	24604.	440.28	600.51
#2	2166.9	24724.	434.90	593.48
#3	2156.7	24710.	438.89	596.02

Sample Name: 580-28720-A-34-B Acquired: 9/24/2011 22:45:19 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**278.5**	**11.21**	**371.3**	**7.065**	**44.13**
Stddev	.9	.34	1.4	.226	.15
%RSD	.3185	3.029	.3638	3.202	.3383
#1	277.6	10.89	371.0	6.804	44.11
#2	278.4	11.57	370.1	7.192	43.99
#3	279.4	11.18	372.8	7.199	44.29

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1961.4**	**24393.**	**455.97**	**611.58**
Stddev	2.4	57.	2.37	1.62
%RSD	.12078	.23330	.52065	.26536
#1	1963.6	24359.	455.45	611.97
#2	1961.6	24459.	453.90	609.80
#3	1958.9	24362.	458.56	612.98

Sample Name: 580-28720-A-34-B Acquired: 9/24/2011 22:52:13 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	3.572	.1891	4.804	-.4122	.5293
Stddev	.765	.0791	1.043	.1114	.0043
%RSD	21.41	41.85	21.72	27.03	.8187
#1	4.455	.2684	6.008	-.5366	.5274
#2	3.133	.1101	4.236	-.3786	.5263
#3	3.128	.1889	4.169	-.3215	.5343

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2170.3	24484.	444.21	598.07
Stddev	4.7	85.	3.83	7.55
%RSD	.21750	.34863	.86296	1.2629
#1	2173.8	24528.	448.62	605.02
#2	2172.2	24539.	441.66	599.16
#3	2165.0	24386.	442.35	590.03

Sample Name: CCV Acquired: 9/24/2011 22:59:12 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.29**	**20.44**	**9.652**	**20.43**	**19.54**
Stddev	.12	.15	.225	.11	.02
%RSD	1.202	.7505	2.326	.5293	.1235
#1	10.32	20.28	9.880	20.51	19.56
#2	10.15	20.59	9.644	20.47	19.55
#3	10.39	20.44	9.431	20.31	19.52
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2013.5**	**23852.**	**434.66**	**595.86**
Stddev	4.7	42.	5.06	4.19
%RSD	.23422	.17510	1.1650	.70286
#1	2008.1	23809.	429.66	592.48
#2	2015.9	23854.	439.78	594.55
#3	2016.5	23892.	434.54	600.54

Sample Name: CCB Acquired: 9/24/2011 23:08:15 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	.0631	.0148	.1921	-.5413	.0109
Stddev	.1290	.0748	.1955	.2122	.0020
%RSD	204.3	507.2	101.8	39.20	17.99
#1	.0813	.0997	.4174	-.3316	.0129
#2	-.0740	-.0414	.0674	-.7558	.0108
#3	.1820	-.0141	.0915	-.5363	.0089
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2176.1	24280.	431.69	591.78
Stddev	4.5	31.	4.83	10.12
%RSD	.20737	.12690	1.1200	1.7104
#1	2173.6	24267.	426.42	580.15
#2	2173.4	24257.	435.93	598.58
#3	2181.3	24315.	432.72	596.61

Sample Name: CCV 00033 Acquired: 9/24/2011 23:17:45 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**10.25**	**20.30**	**9.628**	**20.43**	**19.67**
Stddev	.21	.22	.175	.05	.03
%RSD	2.067	1.062	1.818	.2523	.1333
#1	10.41	20.38	9.821	20.43	19.65
#2	10.01	20.06	9.582	20.38	19.70
#3	10.33	20.47	9.480	20.48	19.65
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2007.1**	**23639.**	**437.59**	**595.31**
Stddev	6.0	32.	1.43	1.74
%RSD	.29919	.13568	.32578	.29192
#1	2003.7	23673.	435.94	595.68
#2	2003.5	23609.	438.44	596.83
#3	2014.0	23636.	438.38	593.41

Sample Name: ICB_CCB Acquired: 9/24/2011 23:26:47 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3092	Ca3158	Fe2599	K_7664	Mg2790
Line	309.271 {109}	315.887 {107}	259.940 {130}	766.490 { 44}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l	mg/l
Avg	**.0540**	**.0253**	**-.0239**	**-.3345**	**.0172**
Stddev	.1354	.0807	.0723	.1506	.0013
%RSD	250.7	319.2	302.6	45.02	7.778
#1	.2093	.1052	.0526	-.4954	.0177
#2	-.0078	.0267	-.0912	-.3114	.0183
#3	-.0395	-.0561	-.0331	-.1969	.0157
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2175.5**	**24177.**	**440.88**	**601.40**
Stddev	4.3	57.	1.63	2.63
%RSD	.19545	.23725	.37064	.43789
#1	2173.4	24124.	442.69	604.34
#2	2172.7	24170.	440.43	599.25
#3	2180.4	24238.	439.51	600.62

Sample Name: Blank Acquired: 9/26/2011 11:41:38 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**-.0006**	**1.500**	**.0000**	**.0027**	**-.10000**	**-.0001**	**.0000**	**.0005**
Stddev	.0001	.378	.0000	.0011	.69282	.0011	.0000	.0001
%RSD	22.90	25.17	405.2	41.93	692.82	1100.	79.73	15.53
#1	-.0006	1.850	.0000	.0016	-.90000	-.0004	.0000	.0004
#2	-.0008	1.550	.0000	.0026	.30000	-.0010	.0000	.0006
#3	-.0005	1.100	.0000	.0038	.30000	.0011	.0001	.0005

Elem	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0000**	**-.0017**	**.0000**	**.0174**	**.0000**	**.0003**	**.0000**	**.0023**
Stddev	.000	.0001	.0000	.0049	.000	.0001	.0000	.0002
%RSD	183.7	4.608	131.1	28.42	127.8	26.13	95.98	10.60
#1	-.0001	-.0018	.0000	.0230	.0000	.0003	.0000	.0026
#2	.0000	-.0016	.0000	.0136	-.0001	.0003	.0000	.0021
#3	.0000	-.0017	.0000	.0155	.0000	.0002	.0000	.0023

Elem	Pb2203	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0011**	**.0000**	**.0000**	**.0000**	**-.0001**	**-.0001**	**.0009**
Stddev	.0003	.000	.0000	.0000	.0003	.0002	.0000
%RSD	28.58	398.5	87.44	300.8	231.3	163.8	4.761
#1	.0009	.0000	.0000	.0000	-.0003	.0000	.0009
#2	.0015	.0000	.0000	.0000	.0002	.0000	.0009
#3	.0010	.0000	.0000	.0000	-.0002	-.0004	.0009

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2559.9**	**23760.**	**317.06**	**846.27**
Stddev	12.6	124.	3.52	15.64
%RSD	.49212	.52217	1.1104	1.8476
#1	2545.4	23633.	320.96	862.72
#2	2566.9	23766.	314.13	844.48
#3	2567.4	23881.	316.08	831.61

Sample Name: 580-28720-A-35-F DU Acquired: 9/26/2011 17:17:13 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0292**	**270.1**	**3.173**	**.7015**	**.00337**	**31.79**
Stddev	.0003	.5	.005	.0052	.00046	.29
%RSD	.8906	.1857	.1608	.7477	13.700	.9264
#1	.0294	269.7	3.168	.6957	.00332	31.46
#2	.0289	270.0	3.178	.7059	.00386	32.04
#3	.0293	270.7	3.172	.7028	.00294	31.86

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0108**	**.2747**	**.1622**	**1.930**	**556.0**	**19.60**
Stddev	.0002	.0003	.0006	.005	.3	.22
%RSD	1.533	.0933	.3670	.2717	.0517	1.113
#1	.0108	.2747	.1616	1.924	556.0	19.45
#2	.0107	.2744	.1628	1.933	556.2	19.85
#3	.0110	.2749	.1623	1.933	555.6	19.49

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**79.76**	**16.72**	**.0948**	**.1158**	**1.270**	**.1235**
Stddev	.01	.11	.0005	.0005	.002	.0010
%RSD	.0163	.6781	.4980	.4171	.1173	.7721
#1	79.75	16.78	.0952	.1152	1.268	.1233
#2	79.77	16.79	.0943	.1161	1.270	.1245
#3	79.77	16.59	.0949	.1160	1.271	.1226

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0558**	**.0268**	**-.0090**	**1.113**	**2.103**
Stddev	.0002	.0021	.0040	.001	.002
%RSD	.3755	7.700	45.11	.0757	.1153
#1	.0556	.0263	-.0122	1.113	2.105
#2	.0558	.0251	-.0103	1.112	2.101
#3	.0560	.0291	-.0044	1.114	2.103

Sample Name: 580-28720-A-35-F DU Acquired: 9/26/2011 17:17:13 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2057.5	23743.	333.96	876.56
Stddev	2.7	30.	3.65	7.11
%RSD	.13262	.12427	1.0934	.81141
#1	2060.4	23732.	335.86	880.01
#2	2057.1	23721.	329.75	868.38
#3	2055.0	23776.	336.28	881.28

Sample Name: 580-28720-A-37-B Acquired: 9/26/2011 18:24:00 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.3413**	**268.0**	**78.82**	**1.143**	**.00782**	**55.74**
Stddev	.0006	2.8	.32	.017	.00167	.85
%RSD	.1716	1.053	.4004	1.502	21.399	1.517
#1	.3419	266.3	79.15	1.159	.00822	56.52
#2	.3408	266.4	78.79	1.125	.00599	54.84
#3	.3410	271.2	78.52	1.143	.00926	55.84

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.2301**	**.4994**	**.2422**	**2.813**	**1022.**	**37.50**
Stddev	.0014	.0023	.0008	.009	5.	.51
%RSD	.6101	.4563	.3331	.3238	.5301	1.357
#1	.2313	.5021	.2427	2.821	1019.	38.04
#2	.2305	.4982	.2427	2.803	1018.	37.03
#3	.2285	.4981	.2413	2.814	1028.	37.43

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**113.7**	**50.98**	**.0104**	**.4266**	**70.58**	**.2358**
Stddev	.4	.17	.0002	.0027	.39	.0032
%RSD	.3704	.3261	2.189	.6435	.5471	1.340
#1	114.2	51.16	.0107	.4298	71.02	.2346
#2	113.5	50.94	.0103	.4249	70.42	.2394
#3	113.4	50.83	.0103	.4252	70.30	.2335

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1489**	**.0327**	**-.0623**	**.6698**	**32.30**
Stddev	.0042	.0012	.0031	.0021	.11
%RSD	2.792	3.535	5.053	.3158	.3413
#1	.1478	.0315	-.0603	.6722	32.42
#2	.1454	.0338	-.0607	.6686	32.27
#3	.1535	.0327	-.0659	.6685	32.21

Sample Name: 580-28720-A-37-B Acquired: 9/26/2011 18:24:00 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1766.6	22669.	315.60	851.68
Stddev	10.6	85.	4.83	13.59
%RSD	.59830	.37397	1.5319	1.5953
#1	1754.5	22571.	310.30	836.00
#2	1773.3	22719.	316.75	859.51
#3	1772.2	22716.	319.76	859.54

Sample Name: 580-28720-A-40-B Acquired: 9/26/2011 19:28:14 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0015**	**2.385**	**.4062**	**.0046**	**-.00059**	**.1043**
Stddev	.0002	.310	.0036	.0002	.00052	.0415
%RSD	15.19	13.00	.8809	5.042	89.026	39.81
#1	.0016	2.722	.4092	.0044	.00000	.0963
#2	.0013	2.320	.4073	.0047	-.00076	.1493
#3	.0017	2.113	.4023	.0049	-.00100	.0674

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0007**	**.0021**	**.0028**	**.0271**	**15.53**	**.3294**
Stddev	.0001	.0001	.0001	.0002	.10	.0993
%RSD	9.973	4.892	4.728	.6825	.6406	30.15
#1	.0007	.0022	.0027	.0269	15.61	.3815
#2	.0008	.0021	.0029	.0273	15.42	.2149
#3	.0007	.0020	.0028	.0270	15.57	.3918

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**1.568**	**.4213**	**.0001**	**.0029**	**.1780**	**.0022**
Stddev	.009	.0017	.0003	.0003	.0014	.0043
%RSD	.5555	.4027	285.3	10.33	.7791	194.0
#1	1.570	.4212	-.0001	.0027	.1791	.0069
#2	1.558	.4197	.0004	.0032	.1784	.0013
#3	1.574	.4230	-.0001	.0027	.1765	-.0015

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0000**	**.0008**	**-.0027**	**.0065**	**.2868**
Stddev	.003	.0006	.0016	.0002	.0019
%RSD	6870.	68.05	62.00	3.205	.6486
#1	.0030	.0007	-.0008	.0067	.2889
#2	-.0031	.0003	-.0038	.0065	.2864
#3	-.0001	.0014	-.0034	.0063	.2852

Sample Name: 580-28720-A-40-B Acquired: 9/26/2011 19:28:14 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2542.5	24010.	313.14	836.98
Stddev	5.1	68.	.63	1.52
%RSD	.19999	.28522	.20235	.18184
#1	2539.5	23935.	313.76	835.33
#2	2548.3	24068.	313.16	838.33
#3	2539.5	24028.	312.50	837.27

Sample Name: CalibStd1 00020 Acquired: 9/26/2011 11:48:28 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0507**	**7.900**	**.0086**	**.3623**	**9.3667**	**.0288**	**.0232**	**.1635**
Stddev	.0003	1.952	.0001	.0062	1.4048	.0012	.0001	.0005
%RSD	.6532	24.71	.6363	1.721	14.997	4.151	.3201	.3163
#1	.0507	9.800	.0085	.3630	7.9000	.0287	.0232	.1640
#2	.0511	5.900	.0085	.3557	10.700	.0301	.0233	.1630
#3	.0504	8.000	.0086	.3681	9.5000	.0277	.0232	.1637

Elem	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0248**	**.0187**	**.0005**	**.0848**	**.0694**	**.1495**	**.0070**	**.0522**
Stddev	.0001	.0001	.0000	.0052	.0002	.0003	.0001	.0001
%RSD	.5496	.4716	7.724	6.153	.3519	.2244	1.438	.2042
#1	.0249	.0187	.0006	.0907	.0695	.1491	.0070	.0522
#2	.0246	.0187	.0005	.0827	.0696	.1498	.0071	.0523
#3	.0248	.0188	.0005	.0809	.0692	.1496	.0069	.0521

Elem	Pb2203	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2158**	**.0030**	**.0064**	**.0085**	**.0279**	**.0385**	**.0237**
Stddev	.0004	.0001	.0000	.0000	.0002	.0001	.0000
%RSD	.1661	1.922	.5592	.4591	.7355	.3598	.2012
#1	.2157	.0029	.0064	.0085	.0281	.0385	.0237
#2	.2162	.0031	.0065	.0085	.0277	.0386	.0237
#3	.2156	.0030	.0064	.0085	.0278	.0383	.0237

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2559.5**	**24413.**	**322.17**	**859.84**
Stddev	2.5	63.	1.92	8.56
%RSD	.09637	.25850	.59444	.99513
#1	2559.8	24405.	320.15	854.36
#2	2556.8	24355.	323.96	869.70
#3	2561.7	24480.	322.41	855.47

Sample Name: CalibStd-2 00022 Acquired: 9/26/2011 11:55:20 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.2548**	**36.82**	**.0438**	**1.797**	**53.867**	**.1469**	**.1174**	**.8334**
Stddev	.0015	1.53	.0002	.048	1.328	.0024	.0006	.0033
%RSD	.6071	4.158	.4633	2.663	2.4652	1.606	.4983	.3944
#1	.2530	38.55	.0436	1.762	53.100	.1447	.1167	.8296
#2	.2556	36.25	.0440	1.852	53.100	.1494	.1178	.8358
#3	.2557	35.65	.0439	1.778	55.400	.1466	.1176	.8347

Elem	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.1239**	**.0980**	**.0026**	**.3696**	**.3446**	**.7358**	**.0352**	**.2540**
Stddev	.0008	.0005	.0001	.0010	.0022	.0046	.0002	.0014
%RSD	.6375	.5544	3.852	.2747	.6433	.6278	.6447	.5434
#1	.1230	.0974	.0025	.3686	.3421	.7305	.0350	.2527
#2	.1245	.0981	.0027	.3706	.3463	.7389	.0354	.2539
#3	.1242	.0984	.0026	.3698	.3455	.7379	.0353	.2554

Elem	Pb2203	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.106**	**.0152**	**.0331**	**.0420**	**.1436**	**.1946**	**.0971**
Stddev	.005	.0001	.0002	.0001	.0010	.0012	.0002
%RSD	.4251	.4914	.5199	.1293	.7187	.6204	.2517
#1	1.101	.0151	.0329	.0419	.1426	.1933	.0968
#2	1.109	.0153	.0333	.0420	.1447	.1957	.0973
#3	1.108	.0152	.0331	.0420	.1436	.1948	.0972

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2455.5**	**23861.**	**321.62**	**858.82**
Stddev	11.9	106.	6.03	19.09
%RSD	.48641	.44252	1.8736	2.2225
#1	2469.2	23983.	323.77	868.35
#2	2447.3	23798.	314.81	836.84
#3	2450.0	23803.	326.27	871.26

Sample Name: CalibStd-3 00020 Acquired: 9/26/2011 12:01:56 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.218**	**170.4**	**.2127**	**8.687**	**263.17**	**.7033**	**.5515**	**4.131**
Stddev	.005	1.9	.0004	.061	3.73	.0096	.0014	.010
%RSD	.4447	1.102	.1708	.7008	1.4159	1.364	.2486	.2471
#1	1.220	168.9	.2124	8.715	263.63	.7008	.5508	4.126
#2	1.212	169.9	.2127	8.729	259.24	.7139	.5506	4.124
#3	1.223	172.5	.2131	8.617	266.65	.6953	.5531	4.143

Elem	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.5844**	**.4706**	**.0124**	**1.780**	**1.628**	**3.463**	**.1685**	**1.251**
Stddev	.0029	.0018	.0001	.018	.005	.014	.0007	.005
%RSD	.4933	.3841	.6555	1.004	.3386	.3966	.4110	.3729
#1	.5852	.4703	.0124	1.782	1.628	3.467	.1683	1.247
#2	.5812	.4689	.0124	1.797	1.622	3.448	.1680	1.250
#3	.5868	.4725	.0125	1.762	1.633	3.475	.1693	1.256

Elem	Pb2203	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**5.476**	**.0733**	**.1608**	**.1972**	**.6991**	**.9253**	**.4569**
Stddev	.013	.0002	.0004	.0006	.0025	.0037	.0012
%RSD	.2292	.2984	.2185	.3007	.3512	.3956	.2674
#1	5.473	.0731	.1604	.1968	.6974	.9251	.4563
#2	5.466	.0732	.1607	.1968	.6979	.9218	.4562
#3	5.490	.0735	.1611	.1979	.7019	.9291	.4583

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2304.3**	**23849.**	**322.13**	**867.07**
Stddev	8.3	66.	2.73	6.16
%RSD	.35805	.27792	.84637	.71078
#1	2303.2	23843.	319.03	865.73
#2	2313.0	23918.	323.21	861.69
#3	2296.6	23786.	324.16	873.79

Sample Name: CalibStd-4 00020 Acquired: 9/26/2011 12:08:29 Type: Cal
Method: 6010-2007Sept2011 Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158	Cd2265	Co2286
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2.499**	**334.2**	**.4288**	**17.53**	**516.03**	**1.407**	**1.089**	**8.494**
Stddev	.013	4.5	.0007	.02	7.24	.002	.003	.008
%RSD	.5120	1.356	.1698	.0861	1.4032	.1141	.2788	.0891
#1	2.511	334.5	.4296	17.52	519.88	1.408	1.092	8.491
#2	2.502	338.6	.4285	17.54	520.53	1.408	1.089	8.502
#3	2.486	329.5	.4282	17.54	507.67	1.405	1.086	8.488

Elem	Cr2677	Cu3273	Fe2599	K_7664	Mg2790	Mn2576	Mo2020	Ni2316
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1.171**	**.9566**	**.0253**	**3.590**	**3.259**	**6.885**	**.3361**	**2.564**
Stddev	.005	.0041	.0002	.022	.022	.036	.0009	.002
%RSD	.4451	.4282	.8510	.6162	.6730	.5200	.2618	.0809
#1	1.176	.9604	.0255	3.568	3.278	6.919	.3369	2.563
#2	1.171	.9571	.0253	3.591	3.264	6.890	.3361	2.567
#3	1.166	.9523	.0251	3.612	3.235	6.847	.3352	2.563

Elem	Pb2203	Sb2068	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Units	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**11.36**	**.1500**	**.3205**	**.3933**	**1.398**	**1.863**	**.9149**
Stddev	.02	.0002	.0007	.0005	.002	.009	.0014
%RSD	.1418	.1200	.2124	.1371	.1476	.5073	.1542
#1	11.36	.1499	.3213	.3933	1.401	1.872	.9165
#2	11.38	.1500	.3202	.3938	1.397	1.864	.9144
#3	11.35	.1502	.3200	.3928	1.397	1.853	.9138

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2120.9**	**22935.**	**319.89**	**848.76**
Stddev	3.6	87.	2.46	5.06
%RSD	.17005	.37894	.76957	.59652
#1	2119.8	22853.	320.48	849.23
#2	2117.9	22925.	322.01	853.56
#3	2124.9	23026.	317.19	843.47

Sample Name: ICV 200.7 00015 Acquired: 9/26/2011 12:15:05 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.5179**	**5.052**	**2.523**	**.2457**	**.26018**	**4.984**
Stddev	.0021	.117	.004	.0009	.00046	.108
%RSD	.4070	2.308	.1653	.3542	.17781	2.165
#1	.5162	5.183	2.527	.2449	.26067	5.028
#2	.5202	5.017	2.521	.2457	.25975	4.861
#3	.5172	4.958	2.520	.2466	.26013	5.062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.2611**	**.4901**	**1.035**	**1.025**	**4.888**	**14.95**
Stddev	.0002	.0006	.003	.003	.046	.05
%RSD	.0622	.1254	.3060	.3014	.9474	.3374
#1	.2613	.4908	1.038	1.026	4.879	14.92
#2	.2610	.4897	1.036	1.028	4.938	14.94
#3	.2610	.4899	1.032	1.022	4.847	15.01
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICV 200.7 00015 Acquired: 9/26/2011 12:15:05 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**5.159**	**1.049**	**.5144**	**.9939**	**.9799**	**2.514**
Stddev	.013	.003	.0004	.0032	.0010	.013
%RSD	.2574	.2714	.0769	.3265	.0999	.5140
#1	5.157	1.049	.5148	.9971	.9806	2.525
#2	5.173	1.052	.5144	.9939	.9803	2.499
#3	5.146	1.046	.5140	.9906	.9788	2.517
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**5.053**	**2.557**	**5.010**	**.5116**	**.7628**
Stddev	.007	.004	.005	.0012	.0010
%RSD	.1409	.1464	.1062	.2375	.1357
#1	5.060	2.561	5.008	.5113	.7640
#2	5.055	2.555	5.016	.5129	.7621
#3	5.046	2.554	5.006	.5105	.7624
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ICV 200.7 00015 Acquired: 9/26/2011 12:15:05 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2457.9	24114.	324.47	871.26
Stddev	2.8	38.	1.81	.86
%RSD	.11585	.15742	.55921	.09920
#1	2456.5	24111.	326.56	871.98
#2	2456.0	24077.	323.61	870.31
#3	2461.2	24153.	323.25	871.51

Sample Name: ICB_CCB Acquired: 9/26/2011 12:24:10 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0023**	**-.0038**	**.0111**	**.0070**	**.00095**	**.0774**
Stddev	.0002	.0937	.0016	.0011	.00039	.0307
%RSD	8.104	2483.	14.70	15.29	41.631	39.67
#1	.0025	.0179	.0130	.0081	.00138	.0669
#2	.0024	-.1064	.0105	.0070	.00085	.0533
#3	.0021	.0771	.0099	.0060	.00062	.1119
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0012**	**.0011**	**.0012**	**.0012**	**.0357**	**.1435**
Stddev	.0000	.0002	.0002	.0006	.0245	.1029
%RSD	3.754	15.11	18.54	47.62	68.69	71.71
#1	.0013	.0009	.0010	.0007	.0217	.1290
#2	.0012	.0012	.0014	.0019	.0213	.2529
#3	.0012	.0012	.0011	.0011	.0640	.0486
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICB_CCB Acquired: 9/26/2011 12:24:10 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**.0500**	**.0013**	**.0016**	**.0011**	**.0097**	**.0064**
Stddev	.0014	.0000	.0002	.0002	.0008	.0023
%RSD	2.723	2.397	10.17	14.86	7.970	36.45
#1	.0496	.0012	.0014	.0013	.0102	.0054
#2	.0489	.0013	.0016	.0009	.0100	.0048
#3	.0516	.0013	.0018	.0011	.0088	.0091
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0132**	**.0065**	**.0064**	**.0011**	**.0017**
Stddev	.0006	.0004	.0007	.0001	.0000
%RSD	4.877	6.061	11.71	13.47	2.237
#1	.0138	.0062	.0063	.0012	.0017
#2	.0125	.0065	.0071	.0009	.0016
#3	.0132	.0070	.0056	.0011	.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICB_CCB Acquired: 9/26/2011 12:24:10 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2586.0	24117.	326.13	874.04
Stddev	10.2	99.	5.88	9.63
%RSD	.39502	.41167	1.8020	1.1020
#1	2574.2	24002.	321.79	863.16
#2	2591.4	24167.	332.82	881.47
#3	2592.3	24181.	323.79	877.49

Sample Name: CRI 00020 Acquired: 9/26/2011 12:31:10 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0202**	**1.188**	**.0614**	**.0107**	**.00456**	**1.193**
Stddev	.0004	.134	.0011	.0006	.00108	.044
%RSD	1.883	11.29	1.739	5.925	23.577	3.717
#1	.0206	1.330	.0603	.0105	.00461	1.179
#2	.0200	1.064	.0616	.0102	.00346	1.157
#3	.0199	1.170	.0624	.0114	.00561	1.243
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0104**	**.0097**	**.0265**	**.0213**	**.1381**	**2.985**
Stddev	.0001	.0000	.0001	.0001	.0492	.109
%RSD	.8549	.4277	.3194	.5256	35.65	3.649
#1	.0104	.0097	.0264	.0213	.0842	3.063
#2	.0103	.0097	.0265	.0214	.1808	2.860
#3	.0105	.0097	.0266	.0212	.1493	3.031
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CRI 00020 Acquired: 9/26/2011 12:31:10 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**1.161**	**.0219**	**.0222**	**.0202**	**.0291**	**.0623**
Stddev	.003	.0000	.0002	.0004	.0001	.0027
%RSD	.2429	.2178	.9896	2.181	.1953	4.294
#1	1.161	.0218	.0224	.0207	.0291	.0605
#2	1.158	.0218	.0219	.0200	.0290	.0610
#3	1.164	.0219	.0222	.0199	.0291	.0654
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1035**	**.1062**	**.0976**	**.0215**	**.0503**
Stddev	.0018	.0013	.0017	.0003	.0002
%RSD	1.739	1.225	1.763	1.193	.4245
#1	.1051	.1053	.0960	.0216	.0501
#2	.1038	.1056	.0973	.0212	.0505
#3	.1015	.1077	.0994	.0217	.0503
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: CRI 00020 Acquired: 9/26/2011 12:31:10 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2580.5	24677.	331.04	881.11
Stddev	3.4	61.	6.63	8.31
%RSD	.13302	.24849	2.0018	.94366
#1	2580.0	24727.	325.70	877.59
#2	2584.1	24697.	328.97	875.14
#3	2577.3	24609.	338.45	890.61

Sample Name: HIGH STD 00020 Acquired: 9/26/2011 12:40:34 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**4.048**	**39.93**	**19.98**	**10.17**	**.39667**	**80.93**
Stddev	.003	.30	.06	.15	.00234	1.10
%RSD	.0660	.7425	.2871	1.475	.59066	1.352
#1	4.046	39.70	20.04	10.29	.39732	82.08
#2	4.051	39.83	19.92	10.000	.39407	79.91
#3	4.046	40.27	19.99	10.21	.39862	80.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**1.993**	**2.010**	**2.003**	**1.996**	**40.02**	**81.50**
Stddev	.003	.001	.002	.001	.12	1.19
%RSD	.1572	.0418	.1002	.0669	.2917	1.454
#1	1.996	2.011	2.005	1.995	40.04	82.21
#2	1.989	2.009	2.004	1.997	40.13	80.14
#3	1.994	2.009	2.001	1.995	39.90	82.17
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: HIGH STD 00020 Acquired: 9/26/2011 12:40:34 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**79.94**	**1.981**	**1.992**	**2.004**	**20.11**	**9.952**
Stddev	.05	.001	.002	.004	.01	.029
%RSD	.0601	.0632	.0838	.2134	.0668	.2895
#1	79.98	1.980	1.992	2.009	20.12	9.983
#2	79.97	1.983	1.991	2.003	20.10	9.927
#3	79.89	1.981	1.994	2.001	20.12	9.947
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**20.03**	**9.854**	**10.03**	**2.009**	**1.995**
Stddev	.06	.006	.02	.002	.004
%RSD	.2950	.0596	.1747	.0859	.2000
#1	20.10	9.860	10.04	2.009	1.998
#2	19.98	9.848	10.01	2.010	1.990
#3	20.03	9.854	10.04	2.007	1.996
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: HIGH STD 00020 Acquired: 9/26/2011 12:40:34 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2127.5	22793.	311.96	829.68
Stddev	3.2	45.	1.52	9.75
%RSD	.15160	.19693	.48764	1.1747
#1	2131.2	22836.	311.04	820.64
#2	2125.6	22796.	313.71	840.00
#3	2125.6	22746.	311.12	828.40

Sample Name: ICSA 00036 Acquired: 9/26/2011 12:49:35 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0008**	**499.4**	**.0002**	**.0025**	**-.00156**	**465.3**
Stddev	.0001	2.9	.0023	.0009	.00077	4.8
%RSD	13.98	.5811	1227.	37.63	49.535	1.035
#1	.0009	498.7	.0028	.0024	-.00146	467.0
#2	.0008	502.6	-.0016	.0016	-.00238	469.0
#3	.0007	497.0	-.0006	.0035	-.00084	459.8
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0008**	**.0009**	**.0026**	**.0106**	**195.9**	**.3231**
Stddev	.0001	.0004	.0002	.0001	.6	.0963
%RSD	10.51	38.78	6.920	.8537	.3141	29.79
#1	.0008	.0013	.0026	.0106	196.5	.4263
#2	.0008	.0006	.0027	.0107	195.8	.2357
#3	.0009	.0008	.0024	.0105	195.3	.3072
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: ICSA 00036 Acquired: 9/26/2011 12:49:35 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**491.0**	**.0132**	**.0003**	**.0015**	**-.0024**	**-.0009**
Stddev	.2	.0001	.0004	.0001	.0021	.0052
%RSD	.0405	.3932	122.9	9.702	85.19	552.0
#1	490.9	.0132	-.0001	.0013	-.0008	.0025
#2	490.8	.0131	.0004	.0015	-.0047	-.0069
#3	491.2	.0132	.0006	.0015	-.0018	.0016
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0175**	**.0027**	**.0060**	**.0034**	**-.0196**
Stddev	.0013	.0014	.0036	.0003	.0001
%RSD	7.623	52.39	59.46	8.308	.3681
#1	.0165	.0022	.0038	.0037	-.0196
#2	.0190	.0042	.0101	.0035	-.0197
#3	.0170	.0015	.0041	.0031	-.0197
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: ICSA 00036 Acquired: 9/26/2011 12:49:35 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1930.7	21596.	310.70	839.49
Stddev	4.5	26.	5.43	5.02
%RSD	.23160	.12159	1.7491	.59779
#1	1925.6	21565.	306.69	837.77
#2	1933.9	21610.	308.52	835.57
#3	1932.7	21612.	316.88	845.15

Sample Name: ICSAB 00028 Acquired: 9/26/2011 12:56:37 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**3.298**	**502.6**	**10.51**	**3.022**	**.98548**	**477.6**
Stddev	.009	1.9	.03	.020	.00088	2.4
%RSD	.2603	.3872	.2402	.6593	.08966	.5001
#1	3.289	503.8	10.52	3.041	.98458	480.1
#2	3.306	503.7	10.53	3.001	.98551	475.3
#3	3.300	500.4	10.48	3.025	.98635	477.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**2.850**	**3.138**	**2.905**	**3.137**	**199.3**	**208.6**
Stddev	.005	.005	.014	.014	1.0	1.4
%RSD	.1923	.1490	.4952	.4441	.4853	.6485
#1	2.848	3.143	2.889	3.120	198.8	210.0
#2	2.857	3.137	2.909	3.144	200.5	207.3
#3	2.846	3.134	2.917	3.145	198.8	208.4
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: ICSAB 00028 Acquired: 9/26/2011 12:56:37 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**495.1**	**1.945**	**2.906**	**3.097**	**10.38**	**10.22**
Stddev	2.4	.007	.006	.004	.01	.02
%RSD	.4830	.3784	.1962	.1150	.1410	.2248
#1	492.3	1.937	2.903	3.101	10.39	10.24
#2	496.3	1.951	2.912	3.095	10.36	10.22
#3	496.6	1.948	2.902	3.095	10.38	10.20
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**5.200**	**.0092**	**10.05**	**2.967**	**3.046**
Stddev	.022	.0012	.01	.011	.008
%RSD	.4264	13.28	.1325	.3562	.2693
#1	5.209	.0083	10.04	2.955	3.047
#2	5.216	.0106	10.07	2.974	3.053
#3	5.175	.0088	10.04	2.972	3.037
Check ?	Chk Pass	None	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: ICSAB 00028 Acquired: 9/26/2011 12:56:37 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1810.7	21317.	307.43	830.95
Stddev	.9	46.	.58	5.79
%RSD	.04809	.21667	.18941	.69717
#1	1809.7	21354.	306.75	826.94
#2	1811.4	21265.	307.72	837.59
#3	1811.0	21331.	307.80	828.31

Sample Name: CCV Acquired: 9/26/2011 16:18:02 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**1.021**	**10.43**	**5.144**	**2.600**	**.10507**	**21.19**
Stddev	.002	.30	.020	.054	.00229	.29
%RSD	.1623	2.852	.3785	2.092	2.1764	1.360
#1	1.022	10.65	5.162	2.641	.10364	21.46
#2	1.023	10.09	5.146	2.538	.10387	20.89
#3	1.019	10.54	5.123	2.620	.10771	21.23
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.5257**	**.4987**	**.5256**	**.5102**	**10.27**	**20.78**
Stddev	.0025	.0017	.0017	.0022	.10	.57
%RSD	.4806	.3434	.3327	.4298	.9925	2.752
#1	.5283	.5003	.5269	.5107	10.17	20.96
#2	.5254	.4988	.5262	.5121	10.27	20.14
#3	.5233	.4969	.5236	.5078	10.38	21.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/26/2011 16:18:02 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**20.79**	**.5210**	**.5194**	**.4999**	**4.979**	**2.536**
Stddev	.04	.0010	.0018	.0028	.018	.013
%RSD	.1794	.1832	.3395	.5561	.3687	.5194
#1	20.80	.5212	.5207	.5025	4.998	2.550
#2	20.82	.5219	.5200	.5001	4.977	2.533
#3	20.75	.5200	.5174	.4970	4.962	2.524
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**5.153**	**2.632**	**2.567**	**.5165**	**.5135**
Stddev	.017	.017	.009	.0020	.0025
%RSD	.3306	.6265	.3466	.3905	.4837
#1	5.168	2.650	2.576	.5171	.5157
#2	5.155	2.629	2.566	.5181	.5141
#3	5.135	2.617	2.559	.5142	.5108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: CCV Acquired: 9/26/2011 16:18:02 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2367.9	23728.	316.28	837.74
Stddev	2.2	34.	8.20	18.40
%RSD	.09435	.14201	2.5914	2.1958
#1	2365.3	23689.	309.74	826.27
#2	2369.5	23743.	325.48	858.96
#3	2368.8	23751.	313.63	828.00

Sample Name: CCB Acquired: 9/26/2011 16:27:03 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0005**	**-.0178**	**-.0009**	**.0004**	**-.00095**	**.0127**
Stddev	.0001	.0742	.0017	.0012	.00138	.0858
%RSD	29.27	417.8	181.9	321.0	146.02	673.6
#1	-.0004	-.0947	-.0024	.0002	-.00230	.0204
#2	-.0006	.0533	.0010	.0016	.00046	.0944
#3	-.0004	-.0118	-.0014	-.0007	-.00100	-.0766
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0001**	**.0000**	**-.0001**	**.0000**	**.0169**	**.0363**
Stddev	.0001	.000	.0002	.0000	.0426	.1001
%RSD	58.95	3775.	161.2	80.42	252.1	275.9
#1	.0001	-.0002	.0001	.0001	-.0109	.0919
#2	.0001	.0001	-.0002	.0000	-.0043	-.0793
#3	.0000	.0001	-.0002	.0000	.0659	.0963
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/26/2011 16:27:03 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**.0029**	**.0001**	**.0003**	**-.0001**	**-.0002**	**-.0011**
Stddev	.0008	.0001	.0001	.0003	.0005	.0022
%RSD	26.56	77.50	43.07	266.1	293.4	196.2
#1	.0022	.0000	.0005	.0002	-.0001	-.0001
#2	.0028	.0001	.0002	-.0004	-.0007	-.0036
#3	.0037	.0002	.0003	-.0001	.0003	.0004
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0016**	**.0008**	**.0003**	**.0000**	**-.0001**
Stddev	.0010	.0004	.0012	.000	.0001
%RSD	60.81	41.88	417.5	415.1	172.7
#1	.0018	.0010	.0003	-.0002	-.0002
#2	.0025	.0011	.0015	.0001	.0001
#3	.0006	.0004	-.0010	.0000	-.0001
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: CCB Acquired: 9/26/2011 16:27:03 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2555.5**	**23653.**	**305.07**	**816.45**
Stddev	1.8	61.	3.66	9.56
%RSD	.07081	.25710	1.1995	1.1710
#1	2553.4	23600.	301.28	810.46
#2	2556.8	23640.	305.33	811.42
#3	2556.2	23719.	308.59	827.48

Sample Name: MB 580-96039/12-A Acquired: 9/26/2011 16:36:33 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0001**	**-.0967**	**-.0006**	**-.0001**	**.00021**	**.0383**
Stddev	.0002	.0593	.0004	.0010	.00051	.0535
%RSD	168.7	61.33	62.16	729.1	249.03	139.6
#1	-.0001	-.1539	-.0008	-.0010	-.00038	.0365
#2	.0003	-.1006	-.0002	.0010	.00046	.0926
#3	.0002	-.0355	-.0010	-.0004	.00054	-.0143

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0001**	**.0000**	**.0000**	**.0011**	**.0263**	**.2371**
Stddev	.0001	.000	.0002	.0004	.0784	.1027
%RSD	169.0	289.3	872.5	33.72	297.7	43.34
#1	-.0001	.0000	-.0001	.0013	.1148	.3410
#2	.0001	.0000	-.0001	.0012	-.0345	.1356
#3	.0001	-.0001	.0003	.0006	-.0013	.2347

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**.0031**	**.0020**	**.0002**	**.0002**	**-.0008**	**.0008**
Stddev	.0007	.0000	.0001	.0003	.0002	.0029
%RSD	21.91	1.234	36.21	179.5	23.88	355.4
#1	.0036	.0020	.0001	.0003	-.0007	.0014
#2	.0023	.0020	.0003	-.0002	-.0007	.0033
#3	.0035	.0020	.0002	.0003	-.0011	-.0023

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**-.0002**	**.0006**	**-.0011**	**-.0001**	**.0038**
Stddev	.0013	.0002	.0013	.0001	.0001
%RSD	531.4	34.83	117.3	58.64	3.436
#1	-.0015	.0007	-.0025	-.0001	.0036
#2	-.0004	.0008	-.0004	-.0001	.0039
#3	.0011	.0004	-.0003	-.0002	.0038

Sample Name: MB 580-96039/12-A Acquired: 9/26/2011 16:36:33 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2573.6	23919.	313.10	839.83
Stddev	2.5	8.	2.07	7.28
%RSD	.09748	.03159	.66226	.86689
#1	2574.7	23913.	315.47	847.70
#2	2570.7	23916.	312.17	838.48
#3	2575.3	23927.	311.65	833.33

Sample Name: LCS 580-96039/13-A Acquired: 9/26/2011 16:43:34 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.5913**	**3.564**	**3.927**	**4.025**	**.10076**	**20.17**
Stddev	.0020	.099	.003	.044	.00359	.23
%RSD	.3336	2.763	.0707	1.085	3.5662	1.145
#1	.5936	3.605	3.930	4.076	.10276	20.43
#2	.5898	3.634	3.927	4.001	.10291	20.02
#3	.5906	3.451	3.925	4.000	.09661	20.06

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.1015**	**.9628**	**.4061**	**.4965**	**21.95**	**20.17**
Stddev	.0004	.0012	.0010	.0016	.39	.25
%RSD	.3795	.1255	.2364	.3222	1.761	1.252
#1	.1013	.9618	.4062	.4984	22.11	20.46
#2	.1013	.9641	.4050	.4958	21.51	19.98
#3	.1019	.9624	.4070	.4955	22.24	20.09

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**19.78**	**1.023**	**5.050**	**.9692**	**.9593**	**2.844**
Stddev	.06	.002	.009	.0010	.0022	.011
%RSD	.3236	.2180	.1707	.0986	.2317	.3891
#1	19.84	1.025	5.040	.9681	.9578	2.852
#2	19.71	1.020	5.052	.9697	.9618	2.849
#3	19.78	1.023	5.057	.9698	.9583	2.832

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**3.893**	**4.900**	**3.959**	**1.022**	**1.027**
Stddev	.015	.015	.013	.003	.001
%RSD	.3769	.2959	.3356	.2492	.1119
#1	3.881	4.913	3.950	1.024	1.026
#2	3.909	4.903	3.954	1.019	1.028
#3	3.890	4.884	3.975	1.021	1.027

Sample Name: LCS 580-96039/13-A Acquired: 9/26/2011 16:43:34 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2305.9	23005.	309.56	827.01
Stddev	4.2	57.	3.86	7.91
%RSD	.18005	.24563	1.2454	.95670
#1	2301.2	22962.	305.65	818.32
#2	2308.9	23069.	309.66	828.90
#3	2307.8	22984.	313.36	833.81

Sample Name: LCSD 580-96039/14-A Acquired: 9/26/2011 16:50:06 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.5976**	**3.608**	**3.981**	**4.027**	**.10325**	**20.17**
Stddev	.0015	.118	.011	.004	.00193	.14
%RSD	.2456	3.258	.2744	.0983	1.8737	.6889
#1	.5989	3.736	3.975	4.026	.10145	20.33
#2	.5960	3.506	3.975	4.024	.10530	20.06
#3	.5980	3.583	3.994	4.031	.10299	20.13

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.1032**	**.9775**	**.4102**	**.4951**	**22.03**	**20.25**
Stddev	.0003	.0015	.0004	.0017	.24	.07
%RSD	.2998	.1556	.0983	.3394	1.093	.3705
#1	.1029	.9757	.4102	.4965	21.95	20.17
#2	.1031	.9784	.4107	.4933	22.30	20.31
#3	.1035	.9783	.4099	.4956	21.84	20.26

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**20.09**	**1.030**	**5.088**	**.9846**	**.9700**	**2.872**
Stddev	.04	.001	.011	.0026	.0028	.002
%RSD	.1768	.0830	.2176	.2612	.2899	.0634
#1	20.08	1.031	5.075	.9817	.9685	2.871
#2	20.07	1.029	5.090	.9858	.9733	2.870
#3	20.13	1.030	5.097	.9864	.9683	2.874

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**3.961**	**4.954**	**4.035**	**1.033**	**.9921**
Stddev	.012	.006	.007	.001	.0018
%RSD	.2966	.1294	.1823	.0977	.1856
#1	3.950	4.947	4.027	1.033	.9901
#2	3.960	4.955	4.037	1.032	.9925
#3	3.973	4.960	4.041	1.033	.9938

Sample Name: LCSD 580-96039/14-A Acquired: 9/26/2011 16:50:06 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2321.3	23216.	309.55	831.46
Stddev	2.0	15.	1.58	4.64
%RSD	.08675	.06287	.51121	.55766
#1	2321.8	23232.	310.03	830.91
#2	2319.1	23212.	307.79	836.34
#3	2323.0	23204.	310.84	827.12

Sample Name: LCSSRM 580-96039/15- Acquired: 9/26/2011 16:56:40 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.5227**	**85.22**	**1.118**	**3.270**	**.94249**	**67.39**
Stddev	.0006	.50	.003	.014	.00994	.72
%RSD	.1240	.5908	.2226	.4180	1.0546	1.064
#1	.5220	84.67	1.119	3.268	.93604	67.34
#2	.5233	85.35	1.115	3.284	.93750	68.13
#3	.5227	85.65	1.119	3.257	.95394	66.70

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**1.180**	**1.481**	**.9621**	**.7560**	**132.1**	**25.24**
Stddev	.001	.002	.0018	.0019	1.3	.28
%RSD	.0554	.1392	.1830	.2563	1.016	1.128
#1	1.179	1.483	.9631	.7564	131.3	25.13
#2	1.180	1.481	.9631	.7578	131.3	25.57
#3	1.180	1.479	.9600	.7540	133.6	25.03

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**28.80**	**4.764**	**.9398**	**1.183**	**1.662**	**.9851**
Stddev	.04	.009	.0008	.001	.004	.0020
%RSD	.1481	.1954	.0836	.0909	.2078	.2042
#1	28.76	4.755	.9391	1.183	1.664	.9829
#2	28.84	4.764	.9398	1.183	1.663	.9869
#3	28.82	4.774	.9406	1.181	1.658	.9854

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**2.239**	**1.354**	**1.839**	**1.147**	**3.069**
Stddev	.011	.005	.005	.002	.002
%RSD	.4700	.3369	.2802	.2039	.0582
#1	2.237	1.357	1.836	1.145	3.071
#2	2.229	1.356	1.845	1.149	3.068
#3	2.250	1.349	1.837	1.145	3.068

Sample Name: LCSSRM 580-96039/15- Acquired: 9/26/2011 16:56:40 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2249.3	23635.	322.39	860.91
Stddev	7.6	38.	2.06	9.44
%RSD	.33689	.16282	.63745	1.0967
#1	2247.6	23657.	323.85	857.45
#2	2242.7	23591.	320.04	853.68
#3	2257.6	23658.	323.27	871.59

Sample Name: 580-28720-A-35-E SD Acquired: 9/26/2011 17:03:23 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0059**	**50.03**	**.5450**	**.1372**	**.00008**	**5.699**
Stddev	.0003	.28	.0020	.0009	.00019	.039
%RSD	5.114	.5678	.3664	.6387	250.93	.6850
#1	.0056	49.78	.5444	.1368	.00005	5.679
#2	.0061	49.96	.5472	.1366	-.00010	5.674
#3	.0059	50.34	.5433	.1382	.00028	5.744

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0024**	**.0463**	**.0319**	**.3503**	**110.0**	**3.814**
Stddev	.0002	.0002	.0005	.0006	.6	.138
%RSD	7.528	.3532	1.680	.1767	.5817	3.618
#1	.0026	.0464	.0313	.3506	109.3	3.880
#2	.0024	.0465	.0323	.3507	110.4	3.905
#3	.0022	.0461	.0320	.3496	110.5	3.655

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**17.07**	**2.797**	**.0256**	**.0213**	**.2091**	**.0183**
Stddev	.05	.006	.0002	.0002	.0022	.0048
%RSD	.2945	.2220	.7272	.9426	1.071	26.07
#1	17.09	2.800	.0256	.0211	.2113	.0159
#2	17.11	2.801	.0258	.0215	.2092	.0151
#3	17.01	2.790	.0254	.0213	.2069	.0238

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0103**	**.0059**	**-.0006**	**.2206**	**.2335**
Stddev	.0028	.0010	.0008	.0008	.0005
%RSD	26.89	16.33	124.8	.3584	.2096
#1	.0090	.0067	-.0009	.2210	.2333
#2	.0134	.0062	.0003	.2211	.2341
#3	.0083	.0048	-.0012	.2197	.2331

Sample Name: 580-28720-A-35-E SD Acquired: 9/26/2011 17:03:23 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2392.7	23961.	315.97	847.45
Stddev	2.7	60.	1.44	1.84
%RSD	.11222	.24857	.45612	.21747
#1	2391.2	24028.	316.83	845.34
#2	2391.2	23940.	314.30	848.68
#3	2395.8	23915.	316.78	848.35

Sample Name: 580-28720-A-35-E Acquired: 9/26/2011 17:10:14 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0280**	**254.0**	**2.809**	**.6977**	**.00290**	**28.07**
Stddev	.0002	.7	.004	.0162	.00135	.65
%RSD	.7312	.2883	.1303	2.315	46.605	2.322
#1	.0280	254.2	2.805	.7082	.00278	28.36
#2	.0283	253.2	2.810	.6791	.00162	27.32
#3	.0279	254.6	2.812	.7058	.00432	28.52

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0098**	**.2537**	**.1584**	**1.806**	**528.3**	**19.52**
Stddev	.0003	.0006	.0004	.002	2.5	.31
%RSD	2.922	.2399	.2767	.0808	.4770	1.612
#1	.0097	.2538	.1579	1.807	529.1	19.49
#2	.0102	.2542	.1585	1.806	525.5	19.21
#3	.0096	.2530	.1588	1.804	530.3	19.84

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**82.24**	**12.80**	**.1215**	**.1147**	**1.118**	**.0824**
Stddev	.22	.08	.0002	.0004	.005	.0046
%RSD	.2709	.6171	.1546	.3470	.4176	5.555
#1	82.34	12.89	.1217	.1143	1.123	.0771
#2	81.99	12.75	.1213	.1150	1.115	.0854
#3	82.39	12.77	.1214	.1148	1.115	.0846

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0485**	**.0248**	**-.0089**	**1.098**	**1.166**
Stddev	.0024	.0006	.0019	.003	.002
%RSD	4.928	2.373	20.98	.2460	.1937
#1	.0483	.0247	-.0104	1.101	1.166
#2	.0510	.0243	-.0068	1.095	1.168
#3	.0462	.0255	-.0094	1.098	1.163

Sample Name: 580-28720-A-35-E Acquired: 9/26/2011 17:10:14 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2071.3	23457.	324.65	862.13
Stddev	3.4	70.	7.11	15.15
%RSD	.16376	.29858	2.1906	1.7574
#1	2068.5	23413.	323.30	853.68
#2	2075.1	23538.	332.35	879.62
#3	2070.2	23421.	318.32	853.09

Sample Name: 580-28720-A-35-G MS Acquired: 9/26/2011 17:24:12 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.6309**	**315.2**	**7.081**	**4.793**	**.10554**	**62.91**
Stddev	.0034	1.6	.016	.014	.00093	.02
%RSD	.5373	.5052	.2273	.2875	.87952	.0330
#1	.6300	313.6	7.091	4.789	.10520	62.93
#2	.6347	315.2	7.090	4.808	.10482	62.89
#3	.6281	316.8	7.063	4.781	.10659	62.90

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.1017**	**1.445**	**.5671**	**2.648**	**606.1**	**43.65**
Stddev	.0005	.005	.0029	.015	4.1	.30
%RSD	.5186	.3224	.5190	.5633	.6729	.6971
#1	.1021	1.449	.5671	2.649	602.9	43.37
#2	.1018	1.446	.5701	2.662	610.7	43.98
#3	.1011	1.439	.5642	2.632	604.9	43.61

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**110.3**	**15.56**	**4.817**	**1.201**	**2.338**	**1.711**
Stddev	.3	.08	.010	.003	.007	.016
%RSD	.2410	.4877	.2131	.2289	.3120	.9109
#1	110.2	15.50	4.822	1.203	2.342	1.728
#2	110.6	15.64	4.823	1.203	2.343	1.708
#3	110.2	15.53	4.805	1.198	2.330	1.697

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**4.032**	**4.404**	**4.024**	**2.181**	**2.491**
Stddev	.009	.012	.018	.007	.007
%RSD	.2117	.2706	.4518	.3186	.2872
#1	4.037	4.405	4.041	2.181	2.496
#2	4.038	4.415	4.027	2.188	2.493
#3	4.022	4.391	4.005	2.174	2.482

Sample Name: 580-28720-A-35-G MS Acquired: 9/26/2011 17:24:12 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1918.5	22981.	328.99	867.85
Stddev	6.7	76.	3.04	2.83
%RSD	.35036	.32924	.92254	.32659
#1	1916.0	22967.	325.50	865.47
#2	1913.5	22913.	330.95	870.99
#3	1926.2	23063.	330.53	867.10

Sample Name: 580-28720-A-35-H MSD Acquired: 9/26/2011 17:31:02 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.6165**	**311.5**	**7.157**	**4.739**	**.10316**	**60.71**
Stddev	.0018	3.1	.011	.167	.00119	1.92
%RSD	.2960	1.001	.1467	3.513	1.1573	3.163
#1	.6144	309.4	7.166	4.689	.10323	59.95
#2	.6171	315.1	7.145	4.924	.10431	62.90
#3	.6179	310.0	7.160	4.602	.10193	59.29

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0994**	**1.313**	**.5575**	**2.574**	**592.5**	**40.28**
Stddev	.0006	.002	.0018	.004	5.5	1.33
%RSD	.6107	.1274	.3202	.1412	.9274	3.312
#1	.0993	1.315	.5559	2.570	592.7	40.02
#2	.0989	1.313	.5572	2.576	597.8	41.73
#3	.1001	1.312	.5594	2.576	586.8	39.10

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**102.8**	**14.10**	**4.700**	**1.178**	**2.261**	**1.606**
Stddev	.3	.05	.006	.002	.001	.009
%RSD	.2996	.3879	.1254	.1818	.0516	.5303
#1	102.5	14.07	4.702	1.177	2.260	1.616
#2	102.8	14.06	4.693	1.176	2.262	1.600
#3	103.1	14.16	4.704	1.180	2.259	1.602

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**3.900**	**4.300**	**3.931**	**2.101**	**2.406**
Stddev	.010	.007	.000	.005	.006
%RSD	.2586	.1709	.0092	.2606	.2377
#1	3.895	4.308	3.931	2.097	2.406
#2	3.894	4.297	3.931	2.099	2.400
#3	3.912	4.294	3.931	2.107	2.411

Sample Name: 580-28720-A-35-H MSD Acquired: 9/26/2011 17:31:02 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1946.6	23276.	326.79	859.67
Stddev	2.0	13.	8.10	20.15
%RSD	.10406	.05752	2.4802	2.3439
#1	1946.0	23288.	328.47	868.40
#2	1945.0	23278.	317.98	836.62
#3	1948.9	23262.	333.92	873.97

Sample Name: 580-28720-A-35-E PDS Acquired: 9/26/2011 17:37:52 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.5578**	**242.1**	**6.363**	**4.364**	**.09773**	**44.68**
Stddev	.0026	1.2	.017	.103	.00123	1.10
%RSD	.4629	.4984	.2638	2.355	1.2623	2.455
#1	.5578	243.0	6.346	4.483	.09914	45.92
#2	.5604	240.8	6.379	4.303	.09684	43.81
#3	.5553	242.5	6.365	4.306	.09722	44.33

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0965**	**1.223**	**.5107**	**2.165**	**515.6**	**37.31**
Stddev	.0003	.001	.0020	.008	1.7	.88
%RSD	.2942	.0458	.3926	.3641	.3301	2.357
#1	.0964	1.224	.5104	2.161	515.0	38.29
#2	.0969	1.223	.5129	2.174	517.6	36.58
#3	.0964	1.223	.5089	2.160	514.3	37.07

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**94.37**	**12.73**	**4.493**	**1.096**	**2.022**	**2.789**
Stddev	.38	.09	.008	.001	.003	.002
%RSD	.4038	.7036	.1775	.1100	.1232	.0695
#1	94.49	12.79	4.486	1.095	2.019	2.788
#2	94.68	12.77	4.502	1.095	2.024	2.792
#3	93.95	12.62	4.492	1.097	2.021	2.788

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**3.815**	**4.357**	**3.801**	**1.922**	**1.984**
Stddev	.006	.004	.011	.009	.003
%RSD	.1464	.0988	.2998	.4774	.1596
#1	3.810	4.352	3.814	1.923	1.981
#2	3.814	4.361	3.793	1.931	1.987
#3	3.821	4.357	3.795	1.912	1.985

Sample Name: 580-28720-A-35-E PDS Acquired: 9/26/2011 17:37:52 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1994.2	23244.	324.34	860.21
Stddev	2.1	60.	6.54	19.28
%RSD	.10742	.25845	2.0159	2.2412
#1	1991.8	23239.	316.80	837.95
#2	1994.9	23187.	328.33	871.82
#3	1996.0	23307.	327.90	870.86

Sample Name: CCV Acquired: 9/26/2011 17:44:42 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**1.022**	**10.19**	**5.191**	**2.569**	**.10405**	**20.96**
Stddev	.002	.21	.017	.017	.00155	.13
%RSD	.2241	2.087	.3290	.6714	1.4923	.6306
#1	1.023	10.42	5.206	2.565	.10571	20.83
#2	1.025	10.15	5.194	2.555	.10379	20.98
#3	1.020	9.998	5.172	2.589	.10264	21.09
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.5321**	**.5045**	**.5257**	**.5097**	**10.17**	**20.45**
Stddev	.0012	.0005	.0019	.0014	.11	.28
%RSD	.2206	.1054	.3598	.2844	1.124	1.372
#1	.5326	.5051	.5251	.5097	10.15	20.14
#2	.5329	.5045	.5279	.5111	10.06	20.67
#3	.5308	.5040	.5242	.5082	10.29	20.55
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/26/2011 17:44:42 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**20.82**	**.5203**	**.5242**	**.5054**	**5.035**	**2.548**
Stddev	.02	.0010	.0003	.0011	.012	.014
%RSD	.1150	.1906	.0616	.2210	.2414	.5318
#1	20.81	.5197	.5245	.5064	5.046	2.555
#2	20.85	.5215	.5243	.5056	5.036	2.557
#3	20.82	.5198	.5238	.5042	5.022	2.533
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**5.210**	**2.657**	**2.597**	**.5171**	**.5182**
Stddev	.012	.009	.003	.0010	.0008
%RSD	.2202	.3196	.1169	.1918	.1542
#1	5.220	2.664	2.598	.5169	.5189
#2	5.211	2.659	2.593	.5182	.5184
#3	5.198	2.647	2.598	.5163	.5174
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: CCV Acquired: 9/26/2011 17:44:42 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2357.5	23650.	317.21	840.58
Stddev	5.0	33.	3.19	6.80
%RSD	.21392	.13913	1.0058	.80891
#1	2356.4	23649.	320.90	840.83
#2	2353.0	23618.	315.43	847.26
#3	2362.9	23684.	315.31	833.66

Sample Name: CCB Acquired: 9/26/2011 17:53:43 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	s **.0003**	k **-.1145**	s **-.0002**	**-.0007**	k **-.00046**	**.0417**
Stddev	.0005	.0840	.0000	.0011	.00085	.0787
%RSD	134.1	73.39	7.926	161.1	185.52	188.7
#1	-.0001	-.1302	-.0003	-.0020	-.00138	.1074
#2	.0003	-.0237	-.0003	.0000	-.00031	-.0455
#3	s .0008	k -.1894	s -.0002	-.0001	k .00031	.0631
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	s **.0000**	k **.0002**	s **.0000**	s **.0010**	s **-.0162**	**.0623**
Stddev	.000	.0002	.0002	.0016	.0578	.1110
%RSD	218.7	98.13	855.7	164.5	356.7	178.2
#1	.0000	.0001	.0001	.0005	-.0611	.0229
#2	-.0001	.0004	-.0002	-.0003	.0490	-.0237
#3	s .0000	k .0000	s .0001	s .0028	s -.0366	.1875
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/26/2011 17:53:43 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	s **.0013**	s **.0002**	s **.0004**	k **-.0002**	k **-.0003**	s **.0023**
Stddev	.0019	.0002	.0003	.0001	.0008	.0015
%RSD	142.5	69.63	79.98	65.03	254.7	65.48
#1	-.0003	.0003	.0005	-.0002	-.0008	.0037
#2	.0034	.0003	.0007	-.0001	-.0009	.0025
#3	s .0009	s .0000	s .0000	k -.0003	k .0006	s .0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	s **.0009**	s **.0006**	k **.0006**	s **.0001**	s **-.0002**
Stddev	.0017	.0006	.0011	.0003	.0011
%RSD	189.1	99.20	184.3	289.3	507.6
#1	.0020	.0011	-.0004	.0003	.0005
#2	.0017	.0006	.0004	-.0002	.0004
#3	s -.0010	s .0000	k .0017	s .0002	s -.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: CCB Acquired: 9/26/2011 17:53:43 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2577.5	^ *****	299.89	798.78
Stddev	15.2	-----	10.61	25.05
%RSD	.58991	-----	3.5374	3.1356
#1	2573.6	23849.	288.58	770.15
#2	2564.6	23749.	301.48	809.56
#3	2594.2	^ -----	309.62	816.64

Sample Name: 580-28720-A-35-E Acquired: 9/26/2011 18:03:14 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0001**	**2.369**	**.0261**	**.0067**	**-.00022**	**.2809**
Stddev	.0003	.128	.0008	.0011	.00091	.0804
%RSD	234.5	5.384	3.087	16.16	406.80	28.63
#1	-.0002	2.247	.0264	.0079	.00055	.1897
#2	.0002	2.359	.0252	.0060	-.00122	.3116
#3	.0004	2.501	.0268	.0062	.00001	.3415

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0001**	**.0022**	**.0015**	**.0170**	**5.378**	**.3011**
Stddev	.0001	.0000	.0003	.0004	.050	.0786
%RSD	36.63	1.639	16.76	2.591	.9240	26.11
#1	.0002	.0022	.0017	.0174	5.410	.2932
#2	.0002	.0022	.0012	.0170	5.403	.2268
#3	.0001	.0022	.0016	.0165	5.321	.3834

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**.8754**	**.1417**	**.0014**	**.0012**	**.0103**	**.0029**
Stddev	.0054	.0010	.0002	.0004	.0006	.0017
%RSD	.6214	.6837	15.08	28.72	5.385	60.17
#1	.8812	.1428	.0016	.0013	.0110	.0033
#2	.8704	.1413	.0014	.0016	.0101	.0010
#3	.8747	.1410	.0012	.0009	.0099	.0043

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0017**	**.0002**	**-.0009**	**.0110**	**.0114**
Stddev	.0003	.0008	.0008	.0002	.0001
%RSD	19.77	338.0	83.31	2.031	.7363
#1	.0013	-.0003	-.0006	.0112	.0114
#2	.0020	-.0002	-.0018	.0108	.0114
#3	.0018	.0012	-.0004	.0110	.0115

Sample Name: 580-28720-A-35-E Acquired: 9/26/2011 18:03:14 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2561.0	23979.	308.60	822.70
Stddev	5.7	81.	2.54	6.31
%RSD	.22330	.33573	.82375	.76727
#1	2554.7	23887.	306.45	817.21
#2	2565.7	24033.	307.94	821.28
#3	2562.8	24018.	311.41	829.60

Sample Name: 580-28720-A-36-B Acquired: 9/26/2011 18:10:12 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0101**	**379.9**	**1.477**	**.3176**	**.00445**	**4.764**
Stddev	.0001	.9	.004	.0019	.00043	.037
%RSD	1.358	.2341	.2365	.5899	9.6087	.7791
#1	.0101	378.9	1.473	.3164	.00404	4.735
#2	.0100	380.7	1.479	.3165	.00489	4.806
#3	.0103	379.9	1.479	.3197	.00443	4.752

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0067**	**.0715**	**.3679**	**.7502**	**340.4**	**6.309**
Stddev	.0001	.0002	.0008	.0026	1.1	.214
%RSD	2.210	.3368	.2268	.3406	.3147	3.388
#1	.0068	.0717	.3684	.7500	339.2	6.403
#2	.0067	.0716	.3684	.7529	341.2	6.065
#3	.0065	.0712	.3669	.7478	340.7	6.460

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**37.02**	**2.512**	**.0223**	**.1542**	**.8570**	**.0641**
Stddev	.09	.007	.0008	.0005	.0007	.0058
%RSD	.2442	.2713	3.445	.3305	.0800	9.122
#1	36.93	2.507	.0217	.1542	.8565	.0585
#2	37.11	2.520	.0231	.1548	.8568	.0637
#3	37.02	2.509	.0220	.1538	.8578	.0702

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0343**	**.0240**	**-.0043**	**.7488**	**.8160**
Stddev	.0036	.0010	.0025	.0025	.0017
%RSD	10.40	4.023	58.60	.3340	.2073
#1	.0383	.0231	-.0064	.7462	.8155
#2	.0315	.0250	-.0015	.7512	.8180
#3	.0330	.0241	-.0048	.7491	.8147

Sample Name: 580-28720-A-36-B Acquired: 9/26/2011 18:10:12 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2201.4	23934.	333.67	894.57
Stddev	3.9	54.	3.43	1.77
%RSD	.17844	.22705	1.0288	.19820
#1	2205.5	23978.	336.08	895.34
#2	2197.7	23873.	329.74	895.83
#3	2201.0	23951.	335.18	892.55

Sample Name: 580-28720-A-36-B Acquired: 9/26/2011 18:17:03 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0001**	**3.516**	**.0138**	**.0042**	**-.00038**	**.0665**
Stddev	.0004	.111	.0015	.0010	.00058	.0585
%RSD	424.7	3.161	10.69	23.48	154.05	88.03
#1	-.0003	3.494	.0131	.0049	-.00099	.0524
#2	.0004	3.417	.0128	.0031	-.00030	.0163
#3	.0001	3.636	.0155	.0046	.00016	.1307

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0002**	**.0007**	**.0036**	**.0074**	**3.400**	**.2208**
Stddev	.0000	.0001	.0000	.0002	.014	.0716
%RSD	20.85	9.888	.7379	2.716	.4153	32.44
#1	.0002	.0008	.0036	.0076	3.385	.2746
#2	.0002	.0008	.0036	.0073	3.413	.1395
#3	.0001	.0007	.0036	.0072	3.401	.2482

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**.4110**	**.0264**	**.0005**	**.0017**	**.0073**	**.0017**
Stddev	.0036	.0001	.0001	.0006	.0004	.0026
%RSD	.8792	.3427	18.27	35.55	5.828	153.4
#1	.4089	.0264	.0004	.0023	.0075	.0039
#2	.4091	.0264	.0005	.0014	.0068	.0023
#3	.4152	.0265	.0006	.0012	.0076	-.0012

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0012**	**.0005**	**-.0001**	**.0077**	**.0080**
Stddev	.0007	.0007	.0011	.0001	.0001
%RSD	53.59	141.9	809.4	1.775	.8987
#1	.0005	.0001	-.0012	.0076	.0080
#2	.0014	.0001	-.0003	.0077	.0079
#3	.0018	.0013	.0010	.0079	.0080

Sample Name: 580-28720-A-36-B Acquired: 9/26/2011 18:17:03 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2544.2	23474.	305.10	820.60
Stddev	6.5	50.	.99	1.98
%RSD	.25501	.21483	.32377	.24074
#1	2550.8	23527.	303.97	822.29
#2	2537.8	23427.	305.80	818.43
#3	2544.1	23468.	305.52	821.09

Sample Name: 580-28720-A-37-B Acquired: 9/26/2011 18:30:47 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0036**	**2.731**	**.9131**	**.0118**	**.00049**	**.6168**
Stddev	.0002	.073	.0091	.0010	.00062	.0782
%RSD	4.632	2.692	1.002	8.305	125.33	12.68
#1	.0035	2.692	.9183	.0115	.00054	.6572
#2	.0037	2.686	.9184	.0111	-.00015	.5266
#3	.0034	2.816	.9025	.0129	.00108	.6665

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0029**	**.0044**	**.0028**	**.0292**	**12.32**	**.4270**
Stddev	.0001	.0002	.0003	.0000	.20	.1566
%RSD	2.005	3.727	10.83	.1592	1.612	36.68
#1	.0029	.0045	.0031	.0293	12.38	.2950
#2	.0028	.0042	.0028	.0292	12.48	.6001
#3	.0028	.0043	.0025	.0292	12.10	.3859

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**1.356**	**.8276**	**.0002**	**.0034**	**.6347**	**-.0008**
Stddev	.009	.0056	.0000	.0003	.0033	.0001
%RSD	.6445	.6793	20.14	7.931	.5235	9.902
#1	1.353	.8261	.0002	.0037	.6369	-.0009
#2	1.365	.8338	.0003	.0032	.6365	-.0009
#3	1.349	.8228	.0002	.0033	.6309	-.0007

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**-.0008**	**.0011**	**-.0020**	**.0074**	**.4714**
Stddev	.0017	.0005	.0015	.0003	.0044
%RSD	208.6	43.30	75.19	3.493	.9342
#1	.0001	.0012	-.0003	.0074	.4744
#2	-.0028	.0014	-.0025	.0077	.4734
#3	.0002	.0005	-.0033	.0072	.4663

Sample Name: 580-28720-A-37-B Acquired: 9/26/2011 18:30:47 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2537.0**	**23804.**	**309.22**	**831.52**
Stddev	5.7	107.	5.34	8.57
%RSD	.22422	.44779	1.7254	1.0303
#1	2539.1	23804.	314.15	841.33
#2	2530.6	23697.	309.97	827.75
#3	2541.4	23910.	303.55	825.48

Sample Name: 580-28720-A-38-B Acquired: 9/26/2011 18:37:41 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0781**	**341.5**	**34.06**	**.6999**	**.00896**	**19.87**
Stddev	.0004	1.4	.01	.0050	.00073	.20
%RSD	.5149	.3987	.0375	.7141	8.1399	1.001
#1	.0784	340.1	34.05	.6994	.00822	19.95
#2	.0777	341.4	34.07	.7051	.00968	20.02
#3	.0784	342.9	34.05	.6951	.00899	19.65

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.1065**	**.5006**	**.2063**	**1.542**	**783.8**	**28.28**
Stddev	.0002	.0012	.0003	.001	4.2	.21
%RSD	.1540	.2426	.1576	.0373	.5373	.7516
#1	.1063	.4999	.2065	1.542	781.2	28.51
#2	.1064	.4998	.2063	1.542	781.5	28.09
#3	.1066	.5020	.2059	1.543	788.6	28.25

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**97.95**	**55.83**	**.0194**	**.2985**	**19.41**	**.0673**
Stddev	.20	.14	.0001	.0011	.04	.0033
%RSD	.2072	.2594	.5235	.3584	.1946	4.906
#1	98.17	55.76	.0193	.2986	19.39	.0687
#2	97.77	55.74	.0195	.2973	19.39	.0698
#3	97.92	56.00	.0194	.2994	19.45	.0636

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1214**	**.0270**	**-.0646**	**.7574**	**15.18**
Stddev	.0069	.0003	.0022	.0013	.01
%RSD	5.709	.9825	3.337	.1756	.0330
#1	.1135	.0269	-.0664	.7584	15.18
#2	.1243	.0268	-.0653	.7559	15.19
#3	.1265	.0273	-.0622	.7579	15.18

Sample Name: 580-28720-A-38-B Acquired: 9/26/2011 18:37:41 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1900.1	22802.	316.56	855.29
Stddev	6.9	66.	4.36	6.79
%RSD	.36357	.28981	1.3772	.79393
#1	1905.4	22857.	312.27	854.94
#2	1902.6	22820.	316.44	848.68
#3	1892.3	22729.	320.98	862.24

Sample Name: 580-28720-A-38-B Acquired: 9/26/2011 18:44:29 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0008**	**3.729**	**.3697**	**.0078**	**.00111**	**.2191**
Stddev	.0002	.135	.0055	.0012	.00201	.0737
%RSD	25.64	3.610	1.495	14.78	181.59	33.63
#1	.0009	3.769	.3752	.0066	.00323	.1400
#2	.0005	3.579	.3698	.0088	.00085	.2314
#3	.0008	3.840	.3642	.0081	-.00076	.2858

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0013**	**.0046**	**.0022**	**.0154**	**8.931**	**.4333**
Stddev	.0001	.0001	.0000	.0002	.127	.1050
%RSD	5.124	3.283	1.093	1.373	1.420	24.24
#1	.0013	.0046	.0022	.0152	9.055	.3221
#2	.0014	.0047	.0022	.0155	8.939	.5308
#3	.0012	.0044	.0021	.0156	8.801	.4470

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**1.118**	**.8944**	**.0002**	**.0025**	**.1791**	**.0011**
Stddev	.007	.0050	.0001	.0000	.0017	.0010
%RSD	.6563	.5597	48.75	1.415	.9635	94.06
#1	1.115	.8918	.0002	.0025	.1810	.0000
#2	1.126	.9002	.0002	.0026	.1787	.0013
#3	1.112	.8913	.0004	.0025	.1776	.0020

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0021**	**.0006**	**-.0014**	**.0081**	**.1752**
Stddev	.0011	.0004	.0011	.0000	.0017
%RSD	52.32	61.27	79.79	.1813	.9454
#1	.0027	.0004	-.0028	.0081	.1771
#2	.0008	.0004	-.0010	.0081	.1747
#3	.0027	.0010	-.0006	.0081	.1739

Sample Name: 580-28720-A-38-B Acquired: 9/26/2011 18:44:29 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2554.2	23930.	293.29	792.25
Stddev	2.9	60.	22.63	65.32
%RSD	.11542	.24877	7.7168	8.2446
#1	2551.8	23867.	267.24	717.02
#2	2557.5	23936.	304.53	825.22
#3	2553.2	23986.	308.10	834.52

Sample Name: 580-28720-A-39-B Acquired: 9/26/2011 18:51:25 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0134**	**368.8**	**2.523**	**.7091**	**.00299**	**15.47**
Stddev	.0002	1.4	.006	.0020	.00081	.13
%RSD	1.459	.3714	.2563	.2858	26.941	.8209
#1	.0135	367.3	2.528	.7072	.00297	15.54
#2	.0135	369.3	2.524	.7089	.00220	15.55
#3	.0132	369.9	2.515	.7112	.00381	15.32

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0083**	**.2880**	**.1855**	**2.114**	**742.0**	**26.68**
Stddev	.0004	.0019	.0005	.004	1.3	.14
%RSD	4.391	.6687	.2636	.2038	.1787	.5411
#1	.0087	.2898	.1860	2.117	741.7	26.63
#2	.0082	.2882	.1855	2.109	740.9	26.84
#3	.0080	.2859	.1851	2.114	743.5	26.57

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**96.86**	**14.17**	**.1238**	**.0853**	**.7461**	**.0844**
Stddev	.21	.04	.0009	.0010	.0064	.0061
%RSD	.2190	.2962	.7212	1.163	.8613	7.216
#1	97.11	14.16	.1248	.0862	.7521	.0810
#2	96.75	14.13	.1235	.0842	.7468	.0808
#3	96.73	14.22	.1231	.0855	.7393	.0914

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0871**	**.0343**	**-.0061**	**1.531**	**.8446**
Stddev	.0014	.0002	.0015	.002	.0035
%RSD	1.569	.6495	25.08	.1127	.4086
#1	.0858	.0342	-.0079	1.532	.8480
#2	.0868	.0341	-.0050	1.529	.8445
#3	.0885	.0345	-.0055	1.532	.8411

Sample Name: 580-28720-A-39-B Acquired: 9/26/2011 18:51:25 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1950.1	23169.	325.71	869.83
Stddev	6.1	42.	5.11	2.59
%RSD	.31161	.18164	1.5703	.29796
#1	1943.7	23121.	327.95	868.37
#2	1951.0	23192.	319.86	868.30
#3	1955.7	23195.	329.33	872.82

Sample Name: 580-28720-A-39-B Acquired: 9/26/2011 18:58:24 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**-.0003**	**3.563**	**.0266**	**.0067**	**-.00076**	**.1452**
Stddev	.0001	.269	.0010	.0009	.00058	.0629
%RSD	20.34	7.535	3.810	13.50	76.630	43.28
#1	-.0003	3.769	.0273	.0078	-.00014	.1265
#2	-.0002	3.662	.0271	.0062	-.00083	.0939
#3	-.0003	3.259	.0255	.0062	-.00130	.2153

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0000**	**.0027**	**.0021**	**.0208**	**7.758**	**.4388**
Stddev	.0000	.0001	.0000	.0002	.075	.1228
%RSD	29.05	4.662	.7132	.8272	.9647	27.99
#1	.0000	.0028	.0021	.0206	7.747	.5804
#2	.0000	.0025	.0021	.0210	7.689	.3616
#3	.0001	.0027	.0021	.0208	7.838	.3743

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**1.034**	**.1616**	**.0014**	**.0009**	**.0068**	**.0009**
Stddev	.004	.0006	.0003	.0003	.0012	.0040
%RSD	.3516	.3697	23.53	38.60	17.19	469.4
#1	1.031	.1609	.0016	.0009	.0060	.0048
#2	1.038	.1621	.0010	.0012	.0081	.0010
#3	1.034	.1617	.0016	.0005	.0062	-.0032

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0022**	**.0012**	**-.0021**	**.0152**	**.0092**
Stddev	.0012	.0008	.0016	.0002	.0001
%RSD	53.72	66.08	77.13	1.159	1.317
#1	.0031	.0004	-.0014	.0150	.0091
#2	.0027	.0013	-.0010	.0153	.0093
#3	.0009	.0019	-.0040	.0152	.0092

Sample Name: 580-28720-A-39-B Acquired: 9/26/2011 18:58:24 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Int. Std.	ln2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2575.6**	**24736.**	**321.55**	**849.89**
Stddev	6.6	39.	2.66	12.34
%RSD	.25738	.15818	.82875	1.4518
#1	2575.8	24736.	319.83	845.69
#2	2568.8	24697.	320.20	840.20
#3	2582.1	24775.	324.62	863.78

Sample Name: CCV Acquired: 9/26/2011 19:05:22 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**1.002**	**10.20**	**5.123**	**2.522**	**.10528**	**20.49**
Stddev	.004	.19	.006	.012	.00086	.22
%RSD	.4020	1.872	.1183	.4665	.81287	1.068
#1	.9981	10.07	5.120	2.526	.10494	20.74
#2	1.006	10.42	5.118	2.532	.10625	20.38
#3	1.002	10.11	5.130	2.509	.10464	20.35
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.5223**	**.4984**	**.5244**	**.5032**	**10.03**	**19.85**
Stddev	.0002	.0014	.0016	.0024	.21	.13
%RSD	.0371	.2809	.3092	.4759	2.105	.6414
#1	.5222	.4968	.5226	.5005	9.818	19.87
#2	.5225	.4987	.5258	.5052	10.24	19.72
#3	.5223	.4996	.5249	.5039	10.05	19.97
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/26/2011 19:05:22 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**20.26**	**.5111**	**.5130**	**.4998**	**4.983**	**2.561**
Stddev	.07	.0020	.0007	.0006	.005	.002
%RSD	.3275	.3883	.1451	.1129	.0941	.0864
#1	20.19	.5090	.5121	.4992	4.980	2.559
#2	20.32	.5130	.5136	.5003	4.980	2.560
#3	20.26	.5112	.5132	.4999	4.988	2.563
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**5.075**	**2.669**	**2.524**	**.5052**	**.5106**
Stddev	.003	.001	.006	.0020	.0003
%RSD	.0593	.0489	.2352	.3961	.0508
#1	5.077	2.670	2.529	.5031	.5105
#2	5.071	2.667	2.526	.5071	.5103
#3	5.076	2.669	2.517	.5054	.5108
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: CCV Acquired: 9/26/2011 19:05:22 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2363.5	23953.	323.09	854.29
Stddev	4.3	37.	2.55	9.07
%RSD	.18151	.15426	.79052	1.0613
#1	2365.5	23968.	320.87	843.82
#2	2358.6	23911.	325.88	859.68
#3	2366.5	23980.	322.52	859.36

Sample Name: CCB Acquired: 9/26/2011 19:14:25 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0000**	**-.0316**	**.0002**	**-.0003**	**.00026**	**.0363**
Stddev	.000	.2102	.0008	.0004	.00062	.0522
%RSD	429.1	665.6	436.9	121.6	241.63	143.9
#1	.0000	.2013	-.0007	.0001	-.00031	.0078
#2	.0000	-.0888	.0005	-.0004	.00015	.0045
#3	-.0001	-.2072	.0007	-.0007	.00092	.0965
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0001**	**.0001**	**-.0001**	**.0000**	**.0123**	**.0810**
Stddev	.0000	.0001	.0001	.0001	.0286	.0905
%RSD	31.31	63.78	109.8	210.9	232.7	111.7
#1	.0001	.0001	-.0002	.0001	-.0116	-.0101
#2	.0001	.0002	.0000	.0001	.0439	.1708
#3	.0001	.0000	-.0002	.0000	.0045	.0822
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/26/2011 19:14:25 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**.0006**	**.0005**	**.0003**	**.0000**	**.0005**	**.0004**
Stddev	.0013	.0001	.0000	.000	.0007	.0019
%RSD	206.1	12.96	9.025	1339.	128.7	504.7
#1	.0019	.0004	.0003	.0003	.0010	.0010
#2	-.0006	.0004	.0003	-.0004	.0009	-.0018
#3	.0004	.0005	.0003	.0000	-.0003	.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0026**	**.0005**	**-.0021**	**.0000**	**.0012**
Stddev	.0035	.0004	.0009	.000	.0001
%RSD	131.6	79.55	45.06	73.88	10.22
#1	.0022	.0003	-.0011	.0000	.0013
#2	.0063	.0009	-.0023	.0000	.0013
#3	-.0006	.0002	-.0029	.0000	.0011
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: CCB Acquired: 9/26/2011 19:14:25 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2585.6	24331.	320.12	853.85
Stddev	5.6	59.	3.07	14.49
%RSD	.21714	.24256	.96036	1.6971
#1	2582.5	24297.	318.09	854.56
#2	2582.2	24297.	323.65	867.97
#3	2592.1	24399.	318.60	839.02

Sample Name: 580-28720-A-40-B Acquired: 9/26/2011 19:21:26 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.1405**	**245.5**	**37.32**	**.4519**	**.00512**	**14.00**
Stddev	.0008	2.1	.11	.0064	.00023	.28
%RSD	.5633	.8577	.3036	1.419	4.4891	1.965
#1	.1401	247.9	37.44	.4591	.00536	14.26
#2	.1414	244.5	37.29	.4498	.00490	14.02
#3	.1400	244.1	37.22	.4468	.00512	13.71

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0423**	**.2651**	**.2664**	**2.659**	**1285.**	**22.87**
Stddev	.0001	.0007	.0004	.001	2.	.45
%RSD	.2277	.2604	.1488	.0460	.1659	1.986
#1	.0424	.2658	.2669	2.658	1284.	23.33
#2	.0422	.2649	.2661	2.660	1283.	22.42
#3	.0422	.2644	.2663	2.661	1287.	22.85

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**136.7**	**31.51**	**.0067**	**.4017**	**21.22**	**.0199**
Stddev	.0	.12	.0002	.0015	.05	.0060
%RSD	.0328	.3661	2.830	.3804	.2536	30.01
#1	136.7	31.64	.0065	.4026	21.27	.0166
#2	136.7	31.42	.0069	.4026	21.22	.0269
#3	136.7	31.47	.0067	.4000	21.16	.0164

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1570**	**.0303**	**-.0346**	**.5949**	**22.85**
Stddev	.0043	.0007	.0059	.0009	.04
%RSD	2.753	2.401	17.10	.1538	.1652
#1	.1525	.0310	-.0397	.5952	22.90
#2	.1611	.0304	-.0361	.5957	22.83
#3	.1575	.0296	-.0281	.5939	22.83

Sample Name: 580-28720-A-40-B Acquired: 9/26/2011 19:21:26 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1684.2	22833.	324.81	866.40
Stddev	2.1	53.	3.74	13.95
%RSD	.12220	.23230	1.1507	1.6099
#1	1683.9	22847.	320.82	851.48
#2	1686.4	22877.	325.39	868.62
#3	1682.3	22774.	328.23	879.11

Sample Name: 580-28720-A-41-B Acquired: 9/26/2011 19:35:09 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.1795**	**408.9**	**42.44**	**.8417**	**.01120**	**29.77**
Stddev	.0003	1.9	.05	.0079	.00089	.18
%RSD	.1664	.4541	.1123	.9414	7.9726	.6004
#1	.1792	406.9	42.40	.8508	.01168	29.94
#2	.1797	410.5	42.49	.8366	.01174	29.59
#3	.1796	409.4	42.42	.8376	.01017	29.77

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.2515**	**.8022**	**.2484**	**4.818**	**1046.**	**16.07**
Stddev	.0006	.0021	.0004	.003	3.	.24
%RSD	.2211	.2592	.1574	.0532	.2845	1.476
#1	.2509	.8012	.2481	4.816	1043.	16.30
#2	.2519	.8046	.2489	4.821	1049.	15.83
#3	.2517	.8008	.2483	4.818	1046.	16.08

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**81.76**	**53.87**	**.0071**	**.3729**	**28.50**	**.0673**
Stddev	.11	.10	.0004	.0008	.08	.0061
%RSD	.1339	.1876	6.061	.2085	.2921	9.015
#1	81.70	53.98	.0068	.3723	28.49	.0651
#2	81.89	53.78	.0068	.3738	28.59	.0742
#3	81.70	53.84	.0076	.3725	28.43	.0626

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1549**	**.0300**	**-.0625**	**.8193**	**26.57**
Stddev	.0040	.0002	.0040	.0016	.06
%RSD	2.578	.5161	6.429	.1956	.2333
#1	.1518	.0298	-.0619	.8176	26.55
#2	.1535	.0300	-.0667	.8208	26.64
#3	.1594	.0301	-.0588	.8195	26.51

Sample Name: 580-28720-A-41-B Acquired: 9/26/2011 19:35:09 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1829.9	23886.	338.99	900.11
Stddev	5.0	37.	6.77	12.00
%RSD	.27135	.15646	1.9981	1.3326
#1	1831.2	23904.	331.60	886.67
#2	1824.4	23843.	340.46	909.72
#3	1834.1	23911.	344.90	903.94

Sample Name: 580-28720-A-41-B Acquired: 9/26/2011 19:41:56 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0019**	**4.145**	**.4762**	**.0084**	**.00018**	**.3577**
Stddev	.0003	.089	.0049	.0007	.00063	.0082
%RSD	16.28	2.144	1.038	8.178	340.74	2.279
#1	.0018	4.058	.4817	.0089	.00062	.3533
#2	.0022	4.141	.4748	.0076	.00047	.3671
#3	.0016	4.236	.4722	.0088	-.00053	.3527

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0031**	**.0070**	**.0027**	**.0507**	**12.85**	**.1384**
Stddev	.0001	.0001	.0001	.0006	.13	.0379
%RSD	2.715	1.411	4.965	1.140	1.001	27.36
#1	.0032	.0071	.0028	.0503	12.99	.1657
#2	.0031	.0070	.0025	.0513	12.76	.1543
#3	.0031	.0069	.0027	.0504	12.78	.0952

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**.9904**	**.9188**	**.0001**	**.0031**	**.2562**	**.0013**
Stddev	.0039	.0038	.0002	.0003	.0030	.0016
%RSD	.3968	.4099	147.1	9.038	1.171	119.2
#1	.9872	.9145	.0001	.0034	.2596	.0022
#2	.9891	.9209	-.0001	.0031	.2548	-.0005
#3	.9948	.9211	.0003	.0028	.2541	.0024

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0022**	**.0011**	**-.0013**	**.0090**	**.3601**
Stddev	.0005	.0007	.0009	.0002	.0023
%RSD	23.23	59.40	70.40	1.781	.6496
#1	.0018	.0014	-.0017	.0091	.3628
#2	.0021	.0004	-.0003	.0091	.3588
#3	.0028	.0016	-.0019	.0088	.3586

Sample Name: 580-28720-A-41-B Acquired: 9/26/2011 19:41:56 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2551.6	24225.	314.98	844.48
Stddev	4.3	36.	6.02	18.69
%RSD	.16786	.14844	1.9122	2.2137
#1	2547.2	24256.	319.80	857.79
#2	2555.8	24233.	308.23	823.11
#3	2551.7	24186.	316.91	852.56

Sample Name: 580-28720-A-42-B Acquired: 9/26/2011 19:48:52 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0957**	**215.5**	**41.95**	**.4988**	**.00313**	**13.19**
Stddev	.0003	1.7	.07	.0067	.00059	.14
%RSD	.3092	.7671	.1624	1.337	18.978	1.087
#1	.0959	216.0	41.99	.4916	.00361	13.06
#2	.0954	216.9	41.98	.5002	.00246	13.16
#3	.0959	213.7	41.87	.5047	.00331	13.34

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0180**	**.2195**	**.2901**	**2.181**	**1180.**	**26.54**
Stddev	.0005	.0002	.0008	.004	4.	.41
%RSD	2.665	.1029	.2877	.1729	.3183	1.561
#1	.0176	.2195	.2906	2.184	1181.	26.14
#2	.0180	.2193	.2906	2.177	1184.	26.51
#3	.0185	.2197	.2891	2.183	1176.	26.97

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**119.8**	**26.48**	**.0047**	**.3280**	**17.94**	**.0305**
Stddev	.1	.21	.0004	.0014	.03	.0013
%RSD	.0893	.7846	9.253	.4292	.1800	4.377
#1	119.9	26.72	.0044	.3290	17.98	.0303
#2	119.9	26.35	.0052	.3285	17.92	.0292
#3	119.7	26.38	.0046	.3264	17.93	.0319

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.1316**	**.0276**	**-.0232**	**.5542**	**17.75**
Stddev	.0008	.0008	.0023	.0004	.03
%RSD	.6216	3.066	9.775	.0799	.1595
#1	.1326	.0274	-.0258	.5545	17.78
#2	.1310	.0268	-.0215	.5544	17.76
#3	.1313	.0285	-.0224	.5537	17.72

Sample Name: 580-28720-A-42-B Acquired: 9/26/2011 19:48:52 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1755.2	22922.	324.99	865.53
Stddev	4.4	37.	4.76	8.63
%RSD	.24962	.16174	1.4649	.99681
#1	1750.2	22907.	328.06	875.47
#2	1756.9	22896.	327.40	861.20
#3	1758.5	22965.	319.50	859.93

Sample Name: 580-28720-A-42-B Acquired: 9/26/2011 19:55:42 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0010**	**2.189**	**.4551**	**.0061**	**.00016**	**.1037**
Stddev	.0001	.101	.0012	.0007	.00008	.0583
%RSD	11.96	4.621	.2610	11.33	49.437	56.19
#1	.0009	2.177	.4559	.0069	.00008	.0703
#2	.0012	2.094	.4557	.0057	.00016	.0699
#3	.0010	2.295	.4538	.0057	.00023	.1711

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0004**	**.0019**	**.0032**	**.0223**	**14.15**	**.2537**
Stddev	.0000	.0002	.0001	.0001	.04	.0682
%RSD	11.82	10.17	1.766	.3916	.3097	26.89
#1	.0004	.0017	.0032	.0222	14.20	.1780
#2	.0004	.0019	.0033	.0223	14.11	.3103
#3	.0003	.0020	.0032	.0223	14.15	.2728

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**1.365**	**.3407**	**.0000**	**.0027**	**.1546**	**.0021**
Stddev	.006	.0017	.0001	.0001	.0004	.0014
%RSD	.4276	.4944	1032.	4.459	.2740	69.13
#1	1.359	.3392	-.0001	.0026	.1541	.0006
#2	1.370	.3425	-.0001	.0028	.1549	.0035
#3	1.367	.3404	.0002	.0026	.1547	.0020

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**.0021**	**.0007**	**-.0012**	**.0057**	**.2110**
Stddev	.0022	.0003	.0005	.0002	.0003
%RSD	105.2	43.09	41.66	3.693	.1636
#1	.0005	.0004	-.0012	.0059	.2114
#2	.0013	.0010	-.0017	.0058	.2111
#3	.0047	.0007	-.0007	.0055	.2107

Sample Name: 580-28720-A-42-B Acquired: 9/26/2011 19:55:42 Type: Unk
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment: 1/100

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2559.4	24200.	316.14	842.67
Stddev	2.7	34.	2.43	6.97
%RSD	.10524	.14026	.76913	.82737
#1	2562.4	24225.	318.95	850.18
#2	2557.2	24161.	314.84	841.43
#3	2558.6	24214.	314.65	836.41

Sample Name: CCV Acquired: 9/26/2011 20:02:36 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**1.043**	**10.24**	**5.238**	**2.600**	**.10672**	**21.24**
Stddev	.002	.47	.018	.018	.00140	.12
%RSD	.1958	4.571	.3538	.6890	1.3134	.5838
#1	1.045	10.02	5.256	2.620	.10602	21.13
#2	1.041	9.917	5.238	2.587	.10579	21.38
#3	1.043	10.78	5.219	2.592	.10833	21.22
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.5404**	**.5080**	**.5279**	**.5135**	**10.59**	**20.81**
Stddev	.0013	.0011	.0009	.0010	.12	.11
%RSD	.2433	.2227	.1729	.1866	1.167	.5210
#1	.5417	.5092	.5289	.5146	10.45	20.93
#2	.5406	.5070	.5272	.5129	10.65	20.72
#3	.5391	.5077	.5276	.5129	10.67	20.78
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Sample Name: CCV Acquired: 9/26/2011 20:02:36 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**21.44**	**.5290**	**.5313**	**.5079**	**5.068**	**2.525**
Stddev	.04	.0009	.0014	.0014	.014	.012
%RSD	.1645	.1659	.2618	.2824	.2782	.4885
#1	21.45	.5296	.5327	.5091	5.084	2.537
#2	21.40	.5280	.5311	.5063	5.060	2.525
#3	21.47	.5295	.5299	.5083	5.060	2.512
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value						
Range						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**5.312**	**2.629**	**2.659**	**.5291**	**.5239**
Stddev	.025	.008	.003	.0007	.0013
%RSD	.4762	.2968	.1197	.1349	.2450
#1	5.331	2.637	2.660	.5299	.5250
#2	5.322	2.629	2.662	.5285	.5241
#3	5.283	2.621	2.656	.5291	.5225
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value					
Range					

Sample Name: CCV Acquired: 9/26/2011 20:02:36 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2353.2	23353.	310.50	839.09
Stddev	6.8	35.	2.51	7.29
%RSD	.28928	.14840	.80935	.86909
#1	2349.5	23341.	307.61	831.19
#2	2361.0	23392.	311.77	840.51
#3	2349.0	23325.	312.13	845.56

Sample Name: CCB Acquired: 9/26/2011 20:11:39 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Ag3280	Al3092	As1890	Ba4554	Be3130	Ca3158
Line	328.068 {103}	309.271 {109}	189.042 {478}	455.403 { 74}	313.042 {108}	315.887 {107}
Units	mg/l	ppm	mg/l	ppm	mg/l	mg/l
Avg	**.0001**	**-.0987**	**.0004**	**.0002**	**.00008**	**.0238**
Stddev	.0002	.1902	.0008	.0012	.00108	.0959
%RSD	150.6	192.8	180.1	550.1	1401.4	402.5
#1	-.0001	-.3137	.0003	.0007	-.00092	.0374
#2	.0003	.0474	.0013	-.0012	.00123	-.0782
#3	.0002	-.0296	-.0002	.0012	-.00008	.1122
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Cd2265	Co2286	Cr2677	Cu3273	Fe2599	K_7664
Line	226.502 {449}	228.616 {447}	267.716 {126}	327.396 {103}	259.940 {130}	766.490 { 44}
Units	mg/l	mg/l	ppm	ppm	mg/l	mg/l
Avg	**.0000**	**.0000**	**.0001**	**-.0001**	**-.0266**	**.0125**
Stddev	.0001	.0001	.0000	.0002	.0570	.0235
%RSD	249.0	349.6	56.06	219.8	214.5	187.7
#1	.0001	.0002	.0001	-.0001	.0064	-.0001
#2	.0000	.0000	.0000	.0001	.0062	.0396
#3	.0000	-.0001	.0001	-.0003	-.0924	-.0020
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Sample Name: CCB Acquired: 9/26/2011 20:11:39 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Mg2790	Mn2576	Mo2020	Ni2316	Pb2203	Sb2068
Line	279.079 {121}	257.610 {131}	202.030 {467}	231.604 {446}	220.353 {453}	206.833 {463}
Units	mg/l	mg/l	ppm	mg/l	mg/l	mg/l
Avg	**.0028**	**.0005**	**.0001**	**.0000**	**-.0004**	**-.0008**
Stddev	.0007	.0000	.0003	.0003	.0002	.0024
%RSD	24.75	8.640	221.3	3608.	57.34	279.2
#1	.0034	.0005	.0003	.0003	-.0001	-.0009
#2	.0031	.0006	-.0002	.0000	-.0005	-.0032
#3	.0020	.0006	.0003	-.0003	-.0004	.0015
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit						
Low Limit						

Elem	Se1960	Sn1899	Tl1908	V_2924	Zn2138
Line	196.090 {472}	189.989 {477}	190.856 {477}	292.402 {115}	213.856 {458}
Units	mg/l	mg/l	mg/l	mg/l	mg/l
Avg	**-.0001**	**.0007**	**.0000**	**.0000**	**.0007**
Stddev	.0013	.0007	.002	.000	.0002
%RSD	1703.	97.13	2070000.	818.9	23.74
#1	.0008	.0010	-.0019	.0002	.0005
#2	.0006	.0012	.0008	.0001	.0008
#3	-.0016	-.0001	.0011	-.0003	.0007
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit					
Low Limit					

Sample Name: CCB Acquired: 9/26/2011 20:11:39 Type: QC
Method: 6010-2007Sept2011 Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2543.5	23320.	307.97	830.21
Stddev	4.7	65.	9.63	32.84
%RSD	.18541	.27844	3.1263	3.9552
#1	2539.7	23261.	298.52	801.04
#2	2548.8	23389.	317.77	865.77
#3	2541.9	23309.	307.61	823.82

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Blank

Sample Description:
Sample Date/Time: Friday, September 23, 2011 10:35:16
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\Blank.004

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be		ug/L			3.3	
⌊>	Li	6	Li		ug/L			154081.0	1.1
⌈	Al	27	Al		ug/L			8047.9	15.3
|	Na	23	Na		ug/L			94055.3	1.5
|	Mg	24	Mg		ug/L			1852.3	11.5
|	P	31	P		ug/L			4870.8	11.3
|	K	39	K		ug/L			605845.9	0.7
|	Ca	44	Ca		ug/L			26271.9	3.3
⌊>	Sc	45	Sc		ug/L			1611311.5	3.0
⌈	Fe	54	Fe		ug/L			24475.1	2.2
|	Ti	47	Ti		ug/L			708.9	4.1
|	V	51	V		ug/L			2027.1	90.8
|	Cr	52	Cr		ug/L			7778.8	1.8
|	Mn	55	Mn		ug/L			7127.3	1.9
|	Co	59	Co		ug/L			248.9	17.1
|	Ni	60	Ni		ug/L			2962.5	0.6
|	Cu	65	Cu		ug/L			193.3	6.2
|	Zn	68	Zn		ug/L			882.4	6.2
|	As	75	As		ug/L			5662.0	6.4
|	Se	82	Se		ug/L			136.7	7.3
⌊>	Ge	74	Ge		ug/L			1671827.1	1.9
⌈	Sr	88	Sr		ug/L			337.1	18.4
|	Mo	95	Mo		ug/L			25.6	19.9
|	Ag	107	Ag		ug/L			61.1	20.7
|	Cd	114	Cd		ug/L			126.9	26.7
|	Sn	118	Sn		ug/L			240.0	14.7
|	Sb	121	Sb		ug/L			105.6	6.6
|	Ba	137	Ba		ug/L			91.1	14.8
⌊>	Rh	103	Rh		ug/L			1646429.8	0.5
⌈	Tl	203	Tl		ug/L			142.2	4.9
|	Pb	208	Pb		ug/L			2983.5	4.0
|	U	238	U		ug/L			35.6	21.7
| >	Lu	175	Lu		ug/L			1529228.8	1.1
⌊	Hg	200	Hg		ug/L			23.3	37.8

Sample ID: Blank

Sample Date/Time: Friday, September 23, 2011 10:35:16
Dataset File: C:\elandata\DataSet\092311PM\Blank.004

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

Sample ID: Standard 1

Sample Description:
Sample Date/Time: Friday, September 23, 2011 10:38:24
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\Standard 1.005

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.100**	ug/L	31.1	3.333	61.1	28.0
⌊>	Li	6	Li		ug/L		154080.983	162634.4	3.1
⌈	Al	27	Al	**1.000**	ug/L	9.4	8047.857	30906.8	5.1
|	Na	23	Na	**10.000**	ug/L	8.4	94055.323	147649.1	0.3
|	Mg	24	Mg	**10.000**	ug/L	1.2	1852.343	36067.7	2.3
|	P	31	P	**10.000**	ug/L	12.2	4870.837	7590.9	7.4
|	K	39	K	**10.000**	ug/L	34.7	605845.902	701867.6	1.2
|	Ca	44	Ca	**10.000**	ug/L	15.0	26271.930	32211.8	1.0
⌊>	Sc	45	Sc		ug/L		1611311.536	1627894.0	3.4
⌈	Fe	54	Fe	**10.000**	ug/L	6.5	24475.102	45952.6	2.1
|	Ti	47	Ti	**0.100**	ug/L	27.2	708.906	827.8	4.4
|	V	51	V	**0.100**	ug/L	153.7	2027.133	4599.2	84.7
|	Cr	52	Cr	**0.100**	ug/L	7.6	7778.784	11338.9	1.3
|	Mn	55	Mn	**0.100**	ug/L	7.3	7127.334	10995.3	2.2
|	Co	59	Co	**0.100**	ug/L	3.8	248.891	1210.1	2.6
|	Ni	60	Ni	**0.100**	ug/L	4.8	2962.529	12474.3	2.4
|	Cu	65	Cu	**0.100**	ug/L	15.4	193.335	680.0	10.0
|	Zn	68	Zn	**0.100**	ug/L	10.8	882.424	1462.7	3.2
|	As	75	As	**0.100**	ug/L	54.6	5662.027	5886.9	1.7
|	Se	82	Se	**0.100**	ug/L	590.7	136.669	142.8	18.1
⌊>	Ge	74	Ge		ug/L		1671827.061	1693757.4	1.3
⌈	Sr	88	Sr	**0.100**	ug/L	4.5	337.141	3908.4	3.6
|	Mo	95	Mo	**0.100**	ug/L	8.9	25.556	405.6	8.7
|	Ag	107	Ag	**0.100**	ug/L	9.0	61.111	934.5	7.9
|	Cd	114	Cd	**0.100**	ug/L	10.6	126.896	638.6	8.9
|	Sn	118	Sn	**0.100**	ug/L	0.1	240.002	1751.2	0.5
|	Sb	121	Sb	**0.100**	ug/L	10.8	105.556	966.7	10.2
|	Ba	137	Ba	**0.100**	ug/L	17.3	91.111	601.1	14.2
⌊>	Rh	103	Rh		ug/L		1646429.824	1638446.8	0.5
⌈	Tl	203	Tl	**0.100**	ug/L	7.5	142.223	936.7	6.8
|	Pb	208	Pb	**0.100**	ug/L	6.3	2983.459	5808.2	2.4
|	U	238	U	**0.100**	ug/L	4.5	35.556	2843.6	3.9
| >	Lu	175	Lu		ug/L		1529228.797	1501940.9	0.7
⌊	Hg	200	Hg	**0.005**	ug/L	14.3	23.333	47.8	8.1

Sample ID: Standard 1

Sample Date/Time: Friday, September 23, 2011 10:38:24
Dataset File: C:\elandata\DataSet\092311PM\Standard 1.005

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Standard 2

Sample Description:
Sample Date/Time: Friday, September 23, 2011 10:41:31
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\Standard 2.006

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.999**	ug/L	1.7	3.333	533.3	1.7
⌊>	Li	6	Li		ug/L		154080.983	163658.9	1.4
⌈	Al	27	Al	**9.762**	ug/L	6.4	8047.857	73211.9	4.9
|	Na	23	Na	**99.949**	ug/L	5.5	94055.323	589669.2	2.4
|	Mg	24	Mg	**99.994**	ug/L	2.2	1852.343	338374.5	3.3
|	P	31	P	**100.142**	ug/L	3.5	4870.837	35624.4	1.2
|	K	39	K	**99.820**	ug/L	4.6	605845.902	1362529.5	0.8
|	Ca	44	Ca	**99.061**	ug/L	4.4	26271.930	55003.5	0.4
⌊>	Sc	45	Sc		ug/L		1611311.536	1611082.7	2.6
⌈	Fe	54	Fe	**98.006**	ug/L	3.0	24475.102	92356.6	1.6
|	Ti	47	Ti	**0.997**	ug/L	21.6	708.906	1553.4	11.6
|	V	51	V	**0.984**	ug/L	43.8	2027.133	11486.1	36.7
|	Cr	52	Cr	**0.980**	ug/L	3.7	7778.784	18698.9	2.5
|	Mn	55	Mn	**0.979**	ug/L	4.9	7127.334	18807.9	3.5
|	Co	59	Co	**1.000**	ug/L	5.7	248.891	9904.6	6.1
|	Ni	60	Ni	**0.710**	ug/L	7.3	2962.529	5145.4	3.4
|	Cu	65	Cu	**0.992**	ug/L	2.9	193.335	2768.0	2.4
|	Zn	68	Zn	**0.980**	ug/L	5.5	882.424	2678.9	4.1
|	As	75	As	**1.000**	ug/L	5.3	5662.027	7108.0	1.7
|	Se	82	Se	**1.008**	ug/L	2.1	136.669	307.2	1.4
⌊>	Ge	74	Ge		ug/L		1671827.061	1662694.9	0.6
⌈	Sr	88	Sr	**0.995**	ug/L	1.8	337.141	23390.6	0.5
|	Mo	95	Mo	**0.999**	ug/L	4.6	25.556	3504.9	3.2
|	Ag	107	Ag	**1.001**	ug/L	3.6	61.111	9154.0	1.6
|	Cd	114	Cd	**1.000**	ug/L	0.5	126.896	5149.6	1.8
|	Sn	118	Sn	**0.986**	ug/L	1.2	240.002	6389.2	3.2
|	Sb	121	Sb	**0.999**	ug/L	0.5	105.556	8109.0	1.5
|	Ba	137	Ba	**0.995**	ug/L	5.2	91.111	3491.5	4.6
⌊>	Rh	103	Rh		ug/L		1646429.824	1615051.0	2.1
⌈	Tl	203	Tl	**1.000**	ug/L	4.9	142.223	7805.5	3.8
|	Pb	208	Pb	**0.999**	ug/L	1.5	2983.459	28519.0	0.5
|	U	238	U	**1.000**	ug/L	1.3	35.556	27439.7	0.7
| >	Lu	175	Lu		ug/L		1529228.797	1496615.7	1.1
⌊	Hg	200	Hg	**0.049**	ug/L	32.2	23.333	97.8	25.8

Sample ID: Standard 2

Sample Date/Time: Friday, September 23, 2011 10:41:31
Dataset File: C:\elandata\DataSet\092311PM\Standard 2.006

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Standard 3

Sample Description:
Sample Date/Time: Friday, September 23, 2011 10:44:39
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\Standard 3.007

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**9.997**	ug/L	1.1	3.333	5120.9	0.7
⌊>	Li	6	Li		ug/L		154080.983	163013.7	0.3
⌈	Al	27	Al	**99.600**	ug/L	2.7	8047.857	496070.9	3.3
|	Na	23	Na	**999.921**	ug/L	2.5	94055.323	5137458.6	3.4
|	Mg	24	Mg	**999.332**	ug/L	1.8	1852.343	3231315.9	2.7
|	P	31	P	**999.949**	ug/L	1.2	4870.837	317949.4	2.3
|	K	39	K	**999.982**	ug/L	0.5	605845.902	8371880.2	0.7
|	Ca	44	Ca	**998.632**	ug/L	2.0	26271.930	288207.3	1.1
⌊>	Sc	45	Sc		ug/L		1611311.536	1649139.4	1.1
⌈	Fe	54	Fe	**999.060**	ug/L	2.2	24475.102	678632.2	1.3
|	Ti	47	Ti	**10.000**	ug/L	1.4	708.906	9497.6	1.3
|	V	51	V	**10.004**	ug/L	0.8	2027.133	104731.6	0.3
|	Cr	52	Cr	**9.968**	ug/L	2.7	7778.784	95150.3	1.9
|	Mn	55	Mn	**10.010**	ug/L	3.1	7127.334	144570.2	2.0
|	Co	59	Co	**9.999**	ug/L	1.5	248.891	99014.2	1.0
|	Ni	60	Ni	**9.946**	ug/L	0.4	2962.529	23755.3	1.2
|	Cu	65	Cu	**9.990**	ug/L	4.1	193.335	24476.5	4.1
|	Zn	68	Zn	**9.960**	ug/L	1.8	882.424	14379.6	1.3
|	As	75	As	**10.021**	ug/L	1.9	5662.027	24951.2	1.1
|	Se	82	Se	**10.004**	ug/L	3.8	136.669	1967.4	3.5
⌊>	Ge	74	Ge		ug/L		1671827.061	1713201.0	1.0
⌈	Sr	88	Sr	**9.990**	ug/L	2.7	337.141	217625.4	1.1
|	Mo	95	Mo	**9.994**	ug/L	2.6	25.556	33694.2	3.0
|	Ag	107	Ag	**9.998**	ug/L	2.1	61.111	91393.7	1.5
|	Cd	114	Cd	**10.001**	ug/L	1.8	126.896	52223.8	0.5
|	Sn	118	Sn	**9.998**	ug/L	2.7	240.002	63121.4	0.7
|	Sb	121	Sb	**9.999**	ug/L	2.8	105.556	81485.1	0.8
|	Ba	137	Ba	**9.995**	ug/L	4.1	91.111	33599.5	2.2
⌊>	Rh	103	Rh		ug/L		1646429.824	1659972.8	2.0
⌈	Tl	203	Tl	**9.996**	ug/L	2.8	142.223	75445.4	2.5
|	Pb	208	Pb	**9.997**	ug/L	1.0	2983.459	258058.2	0.9
|	U	238	U	**9.999**	ug/L	1.4	35.556	276908.2	1.2
| >	Lu	175	Lu		ug/L		1529228.797	1526942.8	0.4
⌊	Hg	200	Hg	**0.500**	ug/L	12.0	23.333	877.8	11.5

Sample ID: Standard 3

Sample Date/Time: Friday, September 23, 2011 10:44:39
Dataset File: C:\elandata\DataSet\092311PM\Standard 3.007

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

Sample ID: Standard 4

Sample Description:
Sample Date/Time: Friday, September 23, 2011 10:47:48
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\Standard 4.008

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**50.038**	ug/L	4.3	3.333	26047.1	0.4
⌊>	Li	6	Li		ug/L		154080.983	162787.8	4.2
⌈	Al	27	Al	**497.982**	ug/L	2.6	8047.857	2144612.3	1.7
|	Na	23	Na	**5004.195**	ug/L	3.3	94055.323	24916678.2	2.7
|	Mg	24	Mg	**5004.685**	ug/L	4.8	1852.343	15952408.9	3.8
|	P	31	P	**5000.983**	ug/L	4.0	4870.837	1520058.0	2.7
|	K	39	K	**5002.964**	ug/L	2.4	605845.902	38526100.4	1.0
|	Ca	44	Ca	**4997.228**	ug/L	1.8	26271.930	1269366.4	2.3
⌊>	Sc	45	Sc		ug/L		1611311.536	1589507.6	1.7
⌈	Fe	54	Fe	**4997.900**	ug/L	0.7	24475.102	3195800.2	0.6
|	Ti	47	Ti	**50.033**	ug/L	1.3	708.906	44437.9	1.5
|	V	51	V	**49.937**	ug/L	2.8	2027.133	489157.6	3.2
|	Cr	52	Cr	**49.942**	ug/L	0.4	7778.784	423983.2	0.8
|	Mn	55	Mn	**50.006**	ug/L	1.1	7127.334	681245.2	1.1
|	Co	59	Co	**49.998**	ug/L	2.0	248.891	483840.0	2.4
|	Ni	60	Ni	**50.015**	ug/L	1.3	2962.529	105821.6	0.9
|	Cu	65	Cu	**49.957**	ug/L	1.0	193.335	116685.8	1.4
|	Zn	68	Zn	**49.779**	ug/L	2.9	882.424	60394.2	3.3
|	As	75	As	**50.107**	ug/L	1.8	5662.027	104756.1	1.7
|	Se	82	Se	**49.994**	ug/L	1.9	136.669	9059.1	1.6
⌊>	Ge	74	Ge		ug/L		1671827.061	1678794.4	0.4
⌈	Sr	88	Sr	**49.952**	ug/L	1.9	337.141	1040298.6	0.7
|	Mo	95	Mo	**50.088**	ug/L	2.5	25.556	172892.2	0.7
|	Ag	107	Ag	**50.007**	ug/L	1.7	61.111	449410.0	1.1
|	Cd	114	Cd	**50.014**	ug/L	1.4	126.896	257181.5	0.6
|	Sn	118	Sn	**50.025**	ug/L	2.7	240.002	312497.8	0.9
|	Sb	121	Sb	**50.040**	ug/L	2.1	105.556	407352.8	0.2
|	Ba	137	Ba	**50.016**	ug/L	1.8	91.111	165819.1	0.8
⌊>	Rh	103	Rh		ug/L		1646429.824	1626817.2	1.9
⌈	Tl	203	Tl	**50.017**	ug/L	1.1	142.223	379790.1	0.7
|	Pb	208	Pb	**49.968**	ug/L	0.2	2983.459	1256893.9	0.6
|	U	238	U	**49.945**	ug/L	1.6	35.556	1345369.8	0.8
| >	Lu	175	Lu		ug/L		1529228.797	1525888.7	0.8
⌊	Hg	200	Hg	**2.503**	ug/L	3.6	23.333	4412.9	2.8

Sample ID: Standard 4

Sample Date/Time: Friday, September 23, 2011 10:47:48
Dataset File: C:\elandata\DataSet\092311PM\Standard 4.008

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
| >	Lu	175	Lu		
⌊	Hg	200	Hg		

Sample ID: Standard 5

Sample Description:
Sample Date/Time: Friday, September 23, 2011 10:50:59
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\Standard 5.009

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**99.695**	ug/L	1.5	3.333	50191.4	0.5
⌊>	Li	6	Li		ug/L		154080.983	159122.5	1.1
⌈	Al	27	Al	**990.660**	ug/L	3.4	8047.857	4165766.2	1.8
|	Na	23	Na	**9960.485**	ug/L	1.3	94055.323	49432058.8	2.6
|	Mg	24	Mg	**9902.670**	ug/L	2.3	1852.343	30838263.7	1.1
|	P	31	P	**9963.369**	ug/L	4.6	4870.837	3021330.2	3.0
|	K	39	K	**9980.555**	ug/L	1.7	605845.902	76722101.5	0.0
|	Ca	44	Ca	**9987.413**	ug/L	4.1	26271.930	2532101.1	3.4
⌊>	Sc	45	Sc		ug/L		1611311.536	1610846.7	1.7
⌈	Fe	54	Fe	**9978.237**	ug/L	1.0	24475.102	6192641.2	0.7
|	Ti	47	Ti	**99.797**	ug/L	2.1	708.906	85727.7	2.7
|	V	51	V	**99.351**	ug/L	2.0	2027.133	930750.1	0.7
|	Cr	52	Cr	**98.980**	ug/L	1.4	7778.784	787363.9	0.3
|	Mn	55	Mn	**99.377**	ug/L	3.5	7127.334	1292254.8	3.0
|	Co	59	Co	**99.350**	ug/L	1.3	248.891	921171.2	0.5
|	Ni	60	Ni	**99.685**	ug/L	1.2	2962.529	201900.1	0.7
|	Cu	65	Cu	**99.393**	ug/L	0.4	193.335	222720.9	1.9
|	Zn	68	Zn	**99.996**	ug/L	2.9	882.424	118291.9	3.2
|	As	75	As	**99.918**	ug/L	1.3	5662.027	199064.6	1.4
|	Se	82	Se	**100.583**	ug/L	2.1	136.669	18172.3	0.6
⌊>	Ge	74	Ge		ug/L		1671827.061	1649465.3	1.6
⌈	Sr	88	Sr	**100.148**	ug/L	3.6	337.141	2057862.9	3.9
|	Mo	95	Mo	**99.826**	ug/L	1.0	25.556	335822.6	0.8
|	Ag	107	Ag	**99.541**	ug/L	0.5	61.111	862370.8	0.9
|	Cd	114	Cd	**99.515**	ug/L	0.7	126.896	492709.8	0.0
|	Sn	118	Sn	**99.925**	ug/L	2.0	240.002	610439.7	1.3
|	Sb	121	Sb	**100.033**	ug/L	0.6	105.556	799852.0	0.1
|	Ba	137	Ba	**99.781**	ug/L	0.6	91.111	321750.8	0.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1595731.0	0.7
⌈	Tl	203	Tl	**99.788**	ug/L	1.2	142.223	740047.7	0.9
|	Pb	208	Pb	**99.518**	ug/L	0.5	2983.459	2417505.2	0.4
|	U	238	U	**100.728**	ug/L	1.4	35.556	2749030.9	0.6
| >	Lu	175	Lu		ug/L		1529228.797	1502688.2	0.9
⌊	Hg	200	Hg	**4.991**	ug/L	1.6	23.333	8590.4	2.0

Sample ID: Standard 5

Sample Date/Time: Friday, September 23, 2011 10:50:59
Dataset File: C:\elandata\DataSet\092311PM\Standard 5.009

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Tacoma Perkin Elmer Elan 6100 ICP-MS
Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

(Dual Detector Mode)

Analyte	Mass	Curve Type	Slope	Intercept	***Corr. Coeff.***
Be	9.012	Linear Thru Zero	0.00	0.00	***0.999981***
Li	6.015	Linear Thru Zero	0.00	0.00	***0.000000***
Al	26.982	Linear Thru Zero	0.00	0.00	***0.999774***
Na	22.990	Linear Thru Zero	0.00	0.00	***0.999968***
Mg	23.985	Linear Thru Zero	0.00	0.00	***0.999815***
P	30.994	Linear Thru Zero	0.00	0.00	***0.999974***
K	38.964	Linear Thru Zero	0.00	0.00	***0.999992***
Ca	43.956	Linear Thru Zero	0.00	0.00	***0.999995***
Sc	44.956	Linear Thru Zero	0.00	0.00	***0.000000***
Fe	53.940	Linear Thru Zero	0.00	0.00	***0.999988***
Ti	46.952	Linear Thru Zero	0.00	0.00	***0.999991***
V	50.944	Linear Thru Zero	0.01	0.00	***0.999914***
Cr	51.941	Linear Thru Zero	0.00	0.00	***0.999788***
Mn	54.938	Linear Thru Zero	0.01	0.00	***0.999924***
Co	58.933	Linear Thru Zero	0.01	0.00	***0.999919***
Ni	59.933	Linear Thru Zero	0.00	0.00	***0.999170***
Cu	64.928	Linear Thru Zero	0.00	0.00	***0.999926***
Zn	67.925	Linear Thru Zero	0.00	0.00	***0.999938***
As	74.922	Linear Thru Zero	0.00	0.00	***0.999985***
Se	81.917	Linear Thru Zero	0.00	0.00	***0.999934***
Ge	73.922	Linear Thru Zero	0.00	0.00	***0.000000***
Sr	87.906	Linear Thru Zero	0.01	0.00	***0.999993***
Mo	94.906	Linear Thru Zero	0.00	0.00	***0.999986***
Ag	106.905	Linear Thru Zero	0.01	0.00	***0.999960***
Cd	113.904	Linear Thru Zero	0.00	0.00	***0.999955***
Sn	117.902	Linear Thru Zero	0.00	0.00	***0.999997***
Sb	120.904	Linear Thru Zero	0.01	0.00	***0.999998***
Ba	136.905	Linear Thru Zero	0.00	0.00	***0.999990***
Rh	102.905	Linear Thru Zero	0.00	0.00	***0.000000***

Report Date/Time: Friday, September 23, 2011 13:46:05
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Tl	202.972	Linear Thru Zero	0.00	0.00	***0.999991***
Pb	207.977	Linear Thru Zero	0.02	0.00	***0.999954***
U	238.050	Linear Thru Zero	0.02	0.00	***0.999895***
Lu	174.941	Linear Thru Zero	0.00	0.00	***0.000000***
Hg	199.968	Linear Thru Zero	0.00	0.00	***0.999989***

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: ICV

Sample Description:
Sample Date/Time: Friday, September 23, 2011 10:54:07
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\ICV.010

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**39.980**	ug/L	3.4	3.333	20395.7	0.8
⌊>	Li	6	Li		ug/L		154080.983	161298.1	2.6
⌈	Al	27	Al	**415.250**	ug/L	3.2	8047.857	1759760.3	0.6
|	Na	23	Na	**4083.616**	ug/L	0.2	94055.323	20428896.7	2.9
|	Mg	24	Mg	**4161.428**	ug/L	0.3	1852.343	13031393.9	2.4
|	P	31	P	**3983.360**	ug/L	2.0	4870.837	1217618.8	2.0
|	K	39	K	**3905.792**	ug/L	4.0	605845.902	30541230.9	2.0
|	Ca	44	Ca	**3965.070**	ug/L	2.3	26271.930	1026455.5	1.9
⌊>	Sc	45	Sc		ug/L		1611311.536	1619420.3	2.8
⌈	Fe	54	Fe	**4085.620**	ug/L	2.0	24475.102	2613307.5	0.8
|	Ti	47	Ti	**40.406**	ug/L	4.0	708.906	35986.4	2.1
|	V	51	V	**41.088**	ug/L	2.2	2027.133	395757.6	1.5
|	Cr	52	Cr	**40.715**	ug/L	4.2	7778.784	336486.8	2.2
|	Mn	55	Mn	**41.015**	ug/L	2.9	7127.334	550803.6	0.8
|	Co	59	Co	**41.107**	ug/L	1.0	248.891	390840.4	1.2
|	Ni	60	Ni	**39.864**	ug/L	2.0	2962.529	84547.2	0.9
|	Cu	65	Cu	**39.787**	ug/L	1.0	193.335	91491.0	1.3
|	Zn	68	Zn	**40.016**	ug/L	2.6	882.424	49042.3	0.7
|	As	75	As	**39.711**	ug/L	2.5	5662.027	84528.0	0.7
|	Se	82	Se	**39.422**	ug/L	4.3	136.669	7382.0	2.2
⌊>	Ge	74	Ge		ug/L		1671827.061	1690783.9	2.2
⌈	Sr	88	Sr	**39.561**	ug/L	1.4	337.141	840059.8	1.7
|	Mo	95	Mo	**39.123**	ug/L	0.4	25.556	136016.8	2.0
|	Ag	107	Ag	**40.528**	ug/L	2.4	61.111	362740.1	1.0
|	Cd	114	Cd	**40.024**	ug/L	0.4	126.896	204834.6	1.2
|	Sn	118	Sn	**39.860**	ug/L	1.8	240.002	251739.9	0.9
|	Sb	121	Sb	**39.658**	ug/L	1.0	105.556	327699.4	0.7
|	Ba	137	Ba	**39.945**	ug/L	1.4	91.111	133131.9	0.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1648849.8	1.7
⌈	Tl	203	Tl	**40.793**	ug/L	2.0	142.223	310007.6	2.3
|	Pb	208	Pb	**40.847**	ug/L	2.2	2983.459	1018077.7	0.5
|	U	238	U	**38.956**	ug/L	2.3	35.556	1089029.2	0.8
| >	Lu	175	Lu		ug/L		1529228.797	1539513.9	2.0
⌊	Hg	200	Hg	**2.082**	ug/L	1.0	23.333	3683.8	1.9

Sample ID: ICV

Sample Date/Time: Friday, September 23, 2011 10:54:07
Dataset File: C:\elandata\DataSet\092311PM\ICV.010

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		104.684
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		100.503
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.134
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.147
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.673
⌊	Hg	200	Hg		

Sample ID: ICB

Sample Description:
Sample Date/Time: Friday, September 23, 2011 10:58:19
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\ICB.011

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.008**	ug/L	120.3	3.333	7.8	65.5
⌊>	Li	6	Li		ug/L		154080.983	161697.9	1.7
⌈	Al	27	Al	**0.001**	ug/L	14124.2	8047.857	7862.2	6.9
|	Na	23	Na	**-3.055**	ug/L	11.7	94055.323	77109.9	2.5
|	Mg	24	Mg	**-0.019**	ug/L	214.1	1852.343	1752.3	5.4
|	P	31	P	**0.594**	ug/L	185.9	4870.837	4935.3	6.7
|	K	39	K	**0.693**	ug/L	182.5	605845.902	597065.0	0.3
|	Ca	44	Ca	**-10.502**	ug/L	45.8	26271.930	23083.1	3.6
⌊>	Sc	45	Sc		ug/L		1611311.536	1574474.0	1.5
⌈	Fe	54	Fe	**3.357**	ug/L	71.7	24475.102	26338.8	5.2
|	Ti	47	Ti	**-0.160**	ug/L	43.7	708.906	565.6	10.1
|	V	51	V	**0.240**	ug/L	149.5	2027.133	4251.3	78.7
|	Cr	52	Cr	**0.022**	ug/L	124.3	7778.784	7886.6	2.4
|	Mn	55	Mn	**-0.066**	ug/L	8.8	7127.334	6206.9	1.2
|	Co	59	Co	**-0.001**	ug/L	629.3	248.891	241.1	13.8
|	Ni	60	Ni	**-0.479**	ug/L	7.1	2962.529	1974.6	3.3
|	Cu	65	Cu	**0.007**	ug/L	323.8	193.335	206.7	23.8
|	Zn	68	Zn	**-0.082**	ug/L	148.8	882.424	777.6	18.4
|	As	75	As	**0.188**	ug/L	52.9	5662.027	5977.5	3.5
|	Se	82	Se	**-0.049**	ug/L	160.2	136.669	126.7	10.8
⌊>	Ge	74	Ge		ug/L		1671827.061	1657004.9	0.5
⌈	Sr	88	Sr	**-0.000**	ug/L	1103.4	337.141	333.2	26.1
|	Mo	95	Mo	**0.227**	ug/L	16.0	25.556	820.0	17.3
|	Ag	107	Ag	**-0.000**	ug/L	524.5	61.111	58.9	23.6
|	Cd	114	Cd	**-0.001**	ug/L	439.7	126.896	123.1	15.3
|	Sn	118	Sn	**0.107**	ug/L	11.6	240.002	918.9	10.3
|	Sb	121	Sb	**0.017**	ug/L	12.0	105.556	244.4	4.8
|	Ba	137	Ba	**-0.001**	ug/L	470.4	91.111	88.9	17.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1657996.0	2.0
⌈	Tl	203	Tl	**0.190**	ug/L	10.6	142.223	1589.0	11.8
|	Pb	208	Pb	**0.001**	ug/L	422.8	2983.459	3027.9	4.1
|	U	238	U	**0.017**	ug/L	15.2	35.556	505.6	15.2
| >	Lu	175	Lu		ug/L		1529228.797	1537956.2	2.2
⌊	Hg	200	Hg	**0.032**	ug/L	28.3	23.333	80.0	18.2

Sample ID: ICB

Sample Date/Time: Friday, September 23, 2011 10:58:19
Dataset File: C:\elandata\DataSet\092311PM\ICB.011

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		104.943
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		97.714
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.113
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.702
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.571
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 2 PPB (CRI)

Sample Description:
Sample Date/Time: Friday, September 23, 2011 11:02:28
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\2 PPB (CRI).012

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.034**	ug/L	9.9	3.333	1022.3	9.2
⌊>	Li	6	Li		ug/L		154080.983	158438.6	2.5
⌈	Al	27	Al	**21.921**	ug/L	1.6	8047.857	98237.8	1.5
|	Na	23	Na	**193.138**	ug/L	5.1	94055.323	1030659.6	1.9
|	Mg	24	Mg	**210.381**	ug/L	5.5	1852.343	644521.5	2.6
|	P	31	P	**201.472**	ug/L	1.2	4870.837	64690.6	2.2
|	K	39	K	**202.976**	ug/L	5.3	605845.902	2113469.6	1.7
|	Ca	44	Ca	**194.836**	ug/L	2.4	26271.930	73773.4	1.4
⌊>	Sc	45	Sc		ug/L		1611311.536	1581607.0	2.9
⌈	Fe	54	Fe	**204.354**	ug/L	2.5	24475.102	152399.0	1.7
|	Ti	47	Ti	**1.744**	ug/L	9.4	708.906	2212.4	5.8
|	V	51	V	**2.055**	ug/L	13.2	2027.133	21474.3	11.1
|	Cr	52	Cr	**2.132**	ug/L	2.5	7778.784	24779.3	1.5
|	Mn	55	Mn	**1.980**	ug/L	5.8	7127.334	33052.7	4.0
|	Co	59	Co	**2.104**	ug/L	1.0	248.891	20005.1	1.1
|	Ni	60	Ni	**2.108**	ug/L	5.1	2962.529	7221.5	2.2
|	Cu	65	Cu	**1.999**	ug/L	1.2	193.335	4725.2	1.4
|	Zn	68	Zn	**2.036**	ug/L	0.5	882.424	3303.7	1.1
|	As	75	As	**1.970**	ug/L	2.7	5662.027	9521.3	0.3
|	Se	82	Se	**2.065**	ug/L	10.3	136.669	511.7	7.7
⌊>	Ge	74	Ge		ug/L		1671827.061	1670483.2	0.8
⌈	Sr	88	Sr	**1.988**	ug/L	1.2	337.141	42920.2	1.2
|	Mo	95	Mo	**2.002**	ug/L	4.0	25.556	7046.2	3.0
|	Ag	107	Ag	**1.994**	ug/L	2.8	61.111	18067.0	1.6
|	Cd	114	Cd	**2.006**	ug/L	3.0	126.896	10479.8	1.7
|	Sn	118	Sn	**1.977**	ug/L	1.3	240.002	12834.7	2.0
|	Sb	121	Sb	**2.007**	ug/L	1.6	105.556	16837.7	0.5
|	Ba	137	Ba	**1.943**	ug/L	3.5	91.111	6622.6	2.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1663784.7	1.3
⌈	Tl	203	Tl	**2.141**	ug/L	1.3	142.223	16301.5	1.1
|	Pb	208	Pb	**2.052**	ug/L	2.3	2983.459	53682.8	2.4
|	U	238	U	**2.009**	ug/L	0.8	35.556	55855.7	0.7
| >	Lu	175	Lu		ug/L		1529228.797	1529795.0	0.3
⌊	Hg	200	Hg	**0.115**	ug/L	20.5	23.333	224.4	18.3

Sample ID: 2 PPB (CRI)

Sample Date/Time: Friday, September 23, 2011 11:02:28
Dataset File: C:\elandata\DataSet\092311PM\2 PPB (CRI).012

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.828
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.156
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.920
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.054
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.037
⌊	Hg	200	Hg		

Sample ID: ICSA

Sample Description:
Sample Date/Time: Friday, September 23, 2011 11:06:36
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\ICSA.013

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.006**	ug/L	182.5	3.333	6.7	86.6
⌊>	Li	6	Li		ug/L		154080.983	160526.4	3.2
⌈	Al	27	Al	**20110.478**	ug/L	2.6	8047.857	86752350.9	1.1
|	Na	23	Na	**50992.652**	ug/L	2.9	94055.323	259620133.8	2.9
|	Mg	24	Mg	**20315.993**	ug/L	3.8	1852.343	65004958.3	2.5
|	P	31	P	**19556.117**	ug/L	2.4	4870.837	6091571.2	1.9
|	K	39	K	**19823.690**	ug/L	1.7	605845.902	155995098.0	1.3
|	Ca	44	Ca	**59369.835**	ug/L	1.1	26271.930	15337091.0	1.4
⌊>	Sc	45	Sc		ug/L		1611311.536	1655331.5	1.5
⌈	Fe	54	Fe	**48946.031**	ug/L	0.4	24475.102	31887577.8	0.7
|	Ti	47	Ti	**342.366**	ug/L	1.3	708.906	307863.5	1.4
|	V	51	V	**0.197**	ug/L	16.1	2027.133	4044.4	8.3
|	Cr	52	Cr	**1.301**	ug/L	3.4	7778.784	18869.1	2.0
|	Mn	55	Mn	**0.755**	ug/L	1.9	7127.334	17680.9	1.0
|	Co	59	Co	**0.127**	ug/L	3.0	248.891	1501.2	3.0
|	Ni	60	Ni	**0.771**	ug/L	16.5	2962.529	4696.3	5.3
|	Cu	65	Cu	**1.119**	ug/L	2.9	193.335	2839.2	3.0
|	Zn	68	Zn	**0.866**	ug/L	7.5	882.424	1987.8	4.5
|	As	75	As	**0.080**	ug/L	128.7	5662.027	6045.0	4.0
|	Se	82	Se	**-0.116**	ug/L	21.7	136.669	120.0	4.2
⌊>	Ge	74	Ge		ug/L		1671827.061	1736727.4	0.6
⌈	Sr	88	Sr	**0.057**	ug/L	25.9	337.141	1549.8	19.4
|	Mo	95	Mo	**395.608**	ug/L	1.9	25.556	1382041.3	0.1
|	Ag	107	Ag	**0.090**	ug/L	8.5	61.111	874.5	7.1
|	Cd	114	Cd	**0.649**	ug/L	3.2	126.896	3464.0	2.3
|	Sn	118	Sn	**0.170**	ug/L	1.9	240.002	1317.8	3.4
|	Sb	121	Sb	**0.135**	ug/L	14.2	105.556	1222.3	11.3
|	Ba	137	Ba	**0.274**	ug/L	8.1	91.111	1010.0	8.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1657553.7	1.9
⌈	Tl	203	Tl	**0.099**	ug/L	4.2	142.223	905.6	2.9
|	Pb	208	Pb	**0.101**	ug/L	8.9	2983.459	5581.5	4.4
|	U	238	U	**0.005**	ug/L	19.9	35.556	177.8	15.2
| >	Lu	175	Lu		ug/L		1529228.797	1555044.4	0.8
⌊	Hg	200	Hg	**0.023**	ug/L	60.0	23.333	64.4	38.1

Sample ID: ICSA

Sample Date/Time: Friday, September 23, 2011 11:06:36
Dataset File: C:\elandata\DataSet\092311PM\ICSA.013

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		104.183
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.732
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.882
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.676
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.688
⌊	Hg	200	Hg		

Sample ID: ICSAB

Sample Description:
Sample Date/Time: Friday, September 23, 2011 11:10:44
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\ICSAB.014

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.002**	ug/L	223.1	3.333	4.4	43.3
⌊>	Li	6	Li		ug/L		154080.983	165138.0	1.2
⌈	Al	27	Al	**19339.330**	ug/L	4.0	8047.857	82588856.3	2.9
|	Na	23	Na	**51694.195**	ug/L	3.0	94055.323	260506462.9	1.2
|	Mg	24	Mg	**20155.834**	ug/L	2.5	1852.343	63853584.7	0.5
|	P	31	P	**19213.060**	ug/L	3.7	4870.837	5924843.2	3.1
|	K	39	K	**19336.141**	ug/L	2.0	605845.902	150650298.6	1.1
|	Ca	44	Ca	**58727.569**	ug/L	1.0	26271.930	15024629.5	3.2
⌊>	Sc	45	Sc		ug/L		1611311.536	1638995.0	2.2
⌈	Fe	54	Fe	**49110.830**	ug/L	1.9	24475.102	31399434.6	1.0
|	Ti	47	Ti	**352.058**	ug/L	1.5	708.906	310683.5	1.3
|	V	51	V	**41.308**	ug/L	0.7	2027.133	401198.1	0.3
|	Cr	52	Cr	**41.727**	ug/L	0.2	7778.784	347659.7	0.8
|	Mn	55	Mn	**40.237**	ug/L	1.7	7127.334	545080.3	0.9
|	Co	59	Co	**40.310**	ug/L	1.5	248.891	386429.4	1.2
|	Ni	60	Ni	**39.290**	ug/L	1.8	2962.529	84068.9	1.2
|	Cu	65	Cu	**39.161**	ug/L	2.0	193.335	90791.0	1.2
|	Zn	68	Zn	**21.211**	ug/L	2.0	882.424	26636.9	1.3
|	As	75	As	**20.318**	ug/L	2.1	5662.027	46432.4	1.8
|	Se	82	Se	**20.013**	ug/L	0.7	136.669	3848.9	0.2
⌊>	Ge	74	Ge		ug/L		1671827.061	1704573.2	0.8
⌈	Sr	88	Sr	**0.103**	ug/L	74.9	337.141	2504.0	63.9
|	Mo	95	Mo	**396.592**	ug/L	0.5	25.556	1374147.4	0.8
|	Ag	107	Ag	**9.937**	ug/L	1.8	61.111	88733.7	2.7
|	Cd	114	Cd	**20.753**	ug/L	1.1	126.896	105940.1	1.8
|	Sn	118	Sn	**0.149**	ug/L	9.2	240.002	1178.9	7.0
|	Sb	121	Sb	**0.127**	ug/L	2.3	105.556	1153.4	0.9
|	Ba	137	Ba	**0.199**	ug/L	11.1	91.111	752.2	9.4
⌊>	Rh	103	Rh		ug/L		1646429.824	1643660.9	1.2
⌈	Tl	203	Tl	**0.061**	ug/L	9.8	142.223	610.0	6.8
|	Pb	208	Pb	**0.232**	ug/L	6.0	2983.459	8761.1	3.1
|	U	238	U	**0.003**	ug/L	25.1	35.556	122.2	18.2
| >	Lu	175	Lu		ug/L		1529228.797	1540283.6	0.9
⌊	Hg	200	Hg	**0.013**	ug/L	36.6	23.333	45.6	18.4

Sample ID: ICSAB

Sample Date/Time: Friday, September 23, 2011 11:10:44
Dataset File: C:\elandata\DataSet\092311PM\ICSAB.014

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		107.176
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		101.718
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.959
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.832
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.723
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 5000 PPB LDR STD

Sample Description:
Sample Date/Time: Friday, September 23, 2011 11:14:49
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\5000 PPB LDR STD.015

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**4953.909**	ug/L	3.0	3.333	2589402.4	0.5
⌊>	Li	6	Li		ug/L		154080.983	165294.6	2.9
⌈	Al	27	Al	**4.337**	ug/L	8.7	8047.857	25560.7	4.6
|	Na	23	Na	**-5.696**	ug/L	8.8	94055.323	64091.3	2.2
|	Mg	24	Mg	**4.238**	ug/L	0.9	1852.343	14664.2	2.0
|	P	31	P	**5.033**	ug/L	14.1	4870.837	6228.0	3.1
|	K	39	K	**-2.598**	ug/L	51.3	605845.902	570616.5	0.5
|	Ca	44	Ca	**1321.024**	ug/L	2.2	26271.930	348628.8	3.8
⌊>	Sc	45	Sc		ug/L		1611311.536	1569349.3	2.2
⌈	Fe	54	Fe	**176.102**	ug/L	25.0	24475.102	130880.4	20.1
|	Ti	47	Ti	**4125.581**	ug/L	4.6	708.906	3460108.1	4.4
|	V	51	V	**5103.160**	ug/L	1.1	2027.133	46967395.2	1.5
|	Cr	52	Cr	**5075.684**	ug/L	1.7	7778.784	39370486.6	2.5
|	Mn	55	Mn	**4989.715**	ug/L	0.8	7127.334	63534174.5	1.2
|	Co	59	Co	**5079.412**	ug/L	1.0	248.891	46347385.2	0.3
|	Ni	60	Ni	**5140.696**	ug/L	1.8	2962.529	10102838.6	1.1
|	Cu	65	Cu	**5107.989**	ug/L	0.8	193.335	11255838.5	0.4
|	Zn	68	Zn	**5177.235**	ug/L	0.5	882.424	5984717.6	0.8
|	As	75	As	**5120.254**	ug/L	2.0	5662.027	9765785.1	2.6
|	Se	82	Se	**4867.746**	ug/L	1.3	136.669	859455.5	0.6
⌊>	Ge	74	Ge		ug/L		1671827.061	1623514.5	0.8
⌈	Sr	88	Sr	**4881.941**	ug/L	0.8	337.141	101835816.7	0.5
|	Mo	95	Mo	**4886.608**	ug/L	1.0	25.556	16692511.1	1.7
|	Ag	107	Ag	**0.072**	ug/L	8.4	61.111	697.8	8.7
|	Cd	114	Cd	**5176.466**	ug/L	0.4	126.896	26020145.7	1.3
|	Sn	118	Sn	**5102.937**	ug/L	0.6	240.002	31647734.2	1.6
|	Sb	121	Sb	**0.171**	ug/L	10.1	105.556	1494.5	9.8
|	Ba	137	Ba	**5112.816**	ug/L	1.7	91.111	16737252.0	2.0
⌊>	Rh	103	Rh		ug/L		1646429.824	1620376.7	1.0
⌈	Tl	203	Tl	**0.182**	ug/L	8.8	142.223	1543.4	7.6
|	Pb	208	Pb	**5103.121**	ug/L	0.7	2983.459	128446385.0	1.3
|	U	238	U	**4923.159**	ug/L	0.3	35.556	139384283.7	0.7
| >	Lu	175	Lu		ug/L		1529228.797	1558765.6	0.6
⌊	Hg	200	Hg	**48.111**	ug/L	1.2	23.333	85685.1	1.8

Sample ID: 5000 PPB LDR STD

Sample Date/Time: Friday, September 23, 2011 11:14:49
Dataset File: C:\elandata\DataSet\092311PM\5000 PPB LDR STD.015

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		107.278
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		97.396
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		97.110
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		98.418
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.931
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Friday, September 23, 2011 11:23:03
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.017

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**49.938**	ug/L	1.7	3.333	25861.2	1.4
⌊>	Li	6	Li		ug/L		154080.983	163702.0	2.9
⌈	Al	27	Al	**500.852**	ug/L	1.9	8047.857	2187115.7	2.2
|	Na	23	Na	**4882.931**	ug/L	1.2	94055.323	25153850.5	0.2
|	Mg	24	Mg	**5052.476**	ug/L	2.7	1852.343	16303761.3	1.8
|	P	31	P	**4949.149**	ug/L	0.8	4870.837	1558256.6	0.4
|	K	39	K	**4856.543**	ug/L	0.5	605845.902	39009309.6	0.7
|	Ca	44	Ca	**4879.283**	ug/L	0.6	26271.930	1295877.5	0.6
⌊>	Sc	45	Sc		ug/L		1611311.536	1669000.3	1.0
⌈	Fe	54	Fe	**5085.222**	ug/L	1.5	24475.102	3189173.5	0.6
|	Ti	47	Ti	**52.744**	ug/L	1.6	708.906	45939.3	0.3
|	V	51	V	**53.405**	ug/L	2.3	2027.133	504639.9	1.0
|	Cr	52	Cr	**51.963**	ug/L	0.9	7778.784	419852.6	0.5
|	Mn	55	Mn	**52.375**	ug/L	3.7	7127.334	688972.1	2.8
|	Co	59	Co	**51.908**	ug/L	2.0	248.891	484736.6	2.5
|	Ni	60	Ni	**49.562**	ug/L	2.0	2962.529	102570.5	3.3
|	Cu	65	Cu	**50.493**	ug/L	1.1	193.335	113990.8	0.2
|	Zn	68	Zn	**50.490**	ug/L	0.9	882.424	60570.8	2.0
|	As	75	As	**50.350**	ug/L	1.4	5662.027	103777.7	0.8
|	Se	82	Se	**49.477**	ug/L	1.2	136.669	9069.6	0.8
⌊>	Ge	74	Ge		ug/L		1671827.061	1660625.8	1.3
⌈	Sr	88	Sr	**49.871**	ug/L	1.5	337.141	1034006.1	0.8
|	Mo	95	Mo	**52.705**	ug/L	2.2	25.556	178903.5	1.8
|	Ag	107	Ag	**50.473**	ug/L	1.6	61.111	441215.1	1.3
|	Cd	114	Cd	**50.942**	ug/L	1.7	126.896	254541.5	1.2
|	Sn	118	Sn	**51.793**	ug/L	1.9	240.002	319366.3	1.3
|	Sb	121	Sb	**50.637**	ug/L	0.7	105.556	408597.9	0.9
|	Ba	137	Ba	**50.394**	ug/L	0.8	91.111	164016.3	1.5
⌊>	Rh	103	Rh		ug/L		1646429.824	1610099.0	0.7
⌈	Tl	203	Tl	**50.746**	ug/L	1.1	142.223	385018.9	2.3
|	Pb	208	Pb	**50.813**	ug/L	1.1	2983.459	1263829.0	0.2
|	U	238	U	**49.109**	ug/L	1.1	35.556	1370840.2	1.3
| >	Lu	175	Lu		ug/L		1529228.797	1536867.5	1.2
⌊	Hg	200	Hg	**2.589**	ug/L	3.3	23.333	4568.5	3.1

Sample ID: QC Std 3

Sample Date/Time: Friday, September 23, 2011 11:23:03
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.017

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	99.876	
⌊>	Li	6	Li		106.244
⌈	Al	27	Al	100.170	
|	Na	23	Na	97.659	
|	Mg	24	Mg	101.050	
|	P	31	P	98.983	
|	K	39	K	97.131	
|	Ca	44	Ca	97.586	
⌊>	Sc	45	Sc		103.580
⌈	Fe	54	Fe	101.704	
|	Ti	47	Ti	105.488	
|	V	51	V	106.811	
|	Cr	52	Cr	103.926	
|	Mn	55	Mn	104.751	
|	Co	59	Co	103.816	
|	Ni	60	Ni	99.124	
|	Cu	65	Cu	100.986	
|	Zn	68	Zn	100.981	
|	As	75	As	100.700	
|	Se	82	Se	98.954	
⌊>	Ge	74	Ge		99.330
⌈	Sr	88	Sr	99.742	
|	Mo	95	Mo	105.410	
|	Ag	107	Ag	100.945	
|	Cd	114	Cd	101.883	
|	Sn	118	Sn	103.585	
|	Sb	121	Sb	101.275	
|	Ba	137	Ba	100.788	
⌊>	Rh	103	Rh		97.793
⌈	Tl	203	Tl	101.491	
|	Pb	208	Pb	101.625	
|	U	238	U	98.219	
|>	Lu	175	Lu		100.500
⌊	Hg	200	Hg	103.577	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Friday, September 23, 2011 11:27:15
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.018

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.026**	ug/L	65.5	3.333	16.7	52.9
⌊>	Li	6	Li		ug/L		154080.983	158855.2	1.8
⌈	Al	27	Al	**0.070**	ug/L	237.3	8047.857	8080.1	7.8
|	Na	23	Na	**-6.665**	ug/L	2.5	94055.323	59133.3	1.2
|	Mg	24	Mg	**0.017**	ug/L	808.2	1852.343	1841.2	20.7
|	P	31	P	**-0.247**	ug/L	264.2	4870.837	4649.6	6.1
|	K	39	K	**0.911**	ug/L	338.5	605845.902	593479.7	2.0
|	Ca	44	Ca	**-16.150**	ug/L	16.2	26271.930	21519.5	0.6
⌊>	Sc	45	Sc		ug/L		1611311.536	1561439.7	2.6
⌈	Fe	54	Fe	**2.423**	ug/L	51.3	24475.102	25684.3	3.6
|	Ti	47	Ti	**-0.135**	ug/L	22.5	708.906	585.6	4.6
|	V	51	V	**0.105**	ug/L	183.6	2027.133	2990.7	60.7
|	Cr	52	Cr	**0.000**	ug/L	42889.9	7778.784	7685.4	4.4
|	Mn	55	Mn	**-0.117**	ug/L	4.3	7127.334	5524.4	1.3
|	Co	59	Co	**0.058**	ug/L	7.4	248.891	785.6	5.3
|	Ni	60	Ni	**0.475**	ug/L	9.3	2962.529	3876.8	2.1
|	Cu	65	Cu	**0.039**	ug/L	29.3	193.335	278.9	9.0
|	Zn	68	Zn	**-0.022**	ug/L	227.8	882.424	845.6	7.2
|	As	75	As	**-0.048**	ug/L	87.9	5662.027	5501.6	1.3
|	Se	82	Se	**-0.084**	ug/L	130.5	136.669	120.0	16.9
⌊>	Ge	74	Ge		ug/L		1671827.061	1651759.9	0.7
⌈	Sr	88	Sr	**0.006**	ug/L	67.8	337.141	456.2	16.9
|	Mo	95	Mo	**1.406**	ug/L	10.7	25.556	4853.1	9.3
|	Ag	107	Ag	**0.002**	ug/L	72.4	61.111	81.1	17.1
|	Cd	114	Cd	**0.009**	ug/L	63.9	126.896	170.2	15.5
|	Sn	118	Sn	**0.612**	ug/L	6.2	240.002	4051.7	4.5
|	Sb	121	Sb	**0.010**	ug/L	41.6	105.556	185.6	18.3
|	Ba	137	Ba	**0.020**	ug/L	58.6	91.111	156.7	25.1
⌊>	Rh	103	Rh		ug/L		1646429.824	1630087.6	1.4
⌈	Tl	203	Tl	**0.156**	ug/L	18.2	142.223	1311.2	15.5
|	Pb	208	Pb	**0.015**	ug/L	65.9	2983.459	3332.4	7.3
|	U	238	U	**0.058**	ug/L	8.7	35.556	1637.9	7.9
| >	Lu	175	Lu		ug/L		1529228.797	1516753.1	1.0
⌊	Hg	200	Hg	**0.085**	ug/L	6.6	23.333	171.1	4.9

Sample ID: QC Std 4

Sample Date/Time: Friday, September 23, 2011 11:27:15
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.018

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.099
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		96.905
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		98.800
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.007
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		99.184
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: MB

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 11:31:26
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\MB.019

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.035**	ug/L	27.7	3.333	21.1	24.1
⌊>	Li	6	Li		ug/L		154080.983	159294.4	1.0
⌈	Al	27	Al	**0.152**	ug/L	196.3	8047.857	8565.9	13.5
|	Na	23	Na	**-6.341**	ug/L	3.1	94055.323	61834.7	2.6
|	Mg	24	Mg	**-0.007**	ug/L	1594.4	1852.343	1805.7	17.4
|	P	31	P	**-1.392**	ug/L	45.7	4870.837	4391.8	4.6
|	K	39	K	**-0.127**	ug/L	900.7	605845.902	597009.0	1.0
|	Ca	44	Ca	**-18.197**	ug/L	12.0	26271.930	21419.4	1.6
⌊>	Sc	45	Sc		ug/L		1611311.536	1590459.8	1.1
⌈	Fe	54	Fe	**1.320**	ug/L	83.4	24475.102	25318.0	3.2
|	Ti	47	Ti	**-0.204**	ug/L	32.2	708.906	532.2	9.7
|	V	51	V	**0.118**	ug/L	182.2	2027.133	3141.1	64.3
|	Cr	52	Cr	**-0.007**	ug/L	415.0	7778.784	7727.6	2.7
|	Mn	55	Mn	**-0.148**	ug/L	1.6	7127.334	5185.4	1.7
|	Co	59	Co	**0.040**	ug/L	26.2	248.891	624.5	15.9
|	Ni	60	Ni	**0.450**	ug/L	35.3	2962.529	3876.8	9.3
|	Cu	65	Cu	**-0.003**	ug/L	478.3	193.335	185.6	18.9
|	Zn	68	Zn	**-0.061**	ug/L	65.1	882.424	809.8	5.0
|	As	75	As	**0.059**	ug/L	206.7	5662.027	5780.1	4.0
|	Se	82	Se	**-0.117**	ug/L	70.2	136.669	115.6	13.1
⌊>	Ge	74	Ge		ug/L		1671827.061	1672781.1	1.1
⌈	Sr	88	Sr	**0.006**	ug/L	75.4	337.141	465.4	20.8
|	Mo	95	Mo	**0.678**	ug/L	10.1	25.556	2352.4	9.3
|	Ag	107	Ag	**0.002**	ug/L	39.7	61.111	78.9	8.8
|	Cd	114	Cd	**0.006**	ug/L	39.9	126.896	155.9	6.9
|	Sn	118	Sn	**0.359**	ug/L	6.4	240.002	2473.5	6.2
|	Sb	121	Sb	**0.002**	ug/L	97.0	105.556	122.2	14.0
|	Ba	137	Ba	**0.012**	ug/L	84.0	91.111	130.0	26.8
⌊>	Rh	103	Rh		ug/L		1646429.824	1628086.6	1.1
⌈	Tl	203	Tl	**0.047**	ug/L	18.4	142.223	498.9	11.9
|	Pb	208	Pb	**0.005**	ug/L	123.7	2983.459	3092.4	5.6
|	U	238	U	**0.025**	ug/L	9.5	35.556	727.8	7.8
| >	Lu	175	Lu		ug/L		1529228.797	1526293.1	1.3
⌊	Hg	200	Hg	**0.054**	ug/L	26.7	23.333	117.8	20.5

Sample ID: MB

Sample Date/Time: Friday, September 23, 2011 11:31:26
Dataset File: C:\elandata\DataSet\092311PM\MB.019

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.384
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.706
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.057
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		98.886
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		99.808
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCS

Sample Description: 50X
Sample Date/Time: Friday, September 23, 2011 11:35:39
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\LCS.020

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.047**	ug/L	1.4	3.333	1128.9	0.9
⌊>	Li	6	Li		ug/L		154080.983	173735.9	1.9
⌈	Al	27	Al	**81.399**	ug/L	0.7	8047.857	391113.4	0.7
|	Na	23	Na	**420.722**	ug/L	1.5	94055.323	2434943.4	0.2
|	Mg	24	Mg	**417.175**	ug/L	1.1	1852.343	1455104.3	2.4
|	P	31	P	**427.568**	ug/L	2.5	4870.837	150254.1	2.3
|	K	39	K	**409.913**	ug/L	1.3	605845.902	4173144.4	0.3
|	Ca	44	Ca	**406.059**	ug/L	0.4	26271.930	143317.6	1.5
⌊>	Sc	45	Sc		ug/L		1611311.536	1801199.6	1.3
⌈	Fe	54	Fe	**476.101**	ug/L	1.8	24475.102	354919.8	1.3
|	Ti	47	Ti	**84.815**	ug/L	2.1	708.906	81303.0	1.6
|	V	51	V	**22.731**	ug/L	4.0	2027.133	239036.4	3.1
|	Cr	52	Cr	**8.779**	ug/L	2.8	7778.784	85624.8	1.9
|	Mn	55	Mn	**22.007**	ug/L	1.1	7127.334	325082.4	1.9
|	Co	59	Co	**22.167**	ug/L	0.8	248.891	229289.9	0.6
|	Ni	60	Ni	**20.614**	ug/L	2.7	2962.529	49113.2	2.0
|	Cu	65	Cu	**10.806**	ug/L	3.4	193.335	27175.8	3.8
|	Zn	68	Zn	**21.576**	ug/L	1.0	882.424	29204.5	1.0
|	As	75	As	**83.408**	ug/L	1.7	5662.027	186214.7	1.1
|	Se	82	Se	**82.415**	ug/L	0.3	136.669	16624.3	0.9
⌊>	Ge	74	Ge		ug/L		1671827.061	1838188.5	0.9
⌈	Sr	88	Sr	**-0.011**	ug/L	23.0	337.141	102.3	58.7
|	Mo	95	Mo	**104.081**	ug/L	1.7	25.556	395730.7	0.4
|	Ag	107	Ag	**12.936**	ug/L	4.5	61.111	126675.0	2.7
|	Cd	114	Cd	**2.246**	ug/L	5.2	126.896	12699.7	3.7
|	Sn	118	Sn	**102.886**	ug/L	0.4	240.002	710547.1	1.6
|	Sb	121	Sb	**60.933**	ug/L	1.7	105.556	550715.8	0.7
|	Ba	137	Ba	**84.595**	ug/L	2.6	91.111	308283.1	0.6
⌊>	Rh	103	Rh		ug/L		1646429.824	1803896.8	2.0
⌈	Tl	203	Tl	**86.570**	ug/L	3.9	142.223	725375.8	2.7
|	Pb	208	Pb	**22.238**	ug/L	2.2	2983.459	612975.2	1.0
|	U	238	U	**0.016**	ug/L	2.8	35.556	546.7	3.0
| >	Lu	175	Lu		ug/L		1529228.797	1698198.1	1.2
⌊	Hg	200	Hg	**1.144**	ug/L	4.8	23.333	2245.7	4.7

Sample ID: LCS

Sample Date/Time: Friday, September 23, 2011 11:35:39
Dataset File: C:\elandata\DataSet\092311PM\LCS.020

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		112.756
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		111.785
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		109.951
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		109.564
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		111.049
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCSD

Sample Description: 50X
Sample Date/Time: Friday, September 23, 2011 11:39:49
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\LCSD.021

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.168**	ug/L	11.4	3.333	1207.8	10.9
⌊>	Li	6	Li		ug/L		154080.983	175627.9	2.6
⌈	Al	27	Al	**86.140**	ug/L	2.8	8047.857	405880.2	2.2
|	Na	23	Na	**439.040**	ug/L	2.7	94055.323	2490379.0	1.3
|	Mg	24	Mg	**446.002**	ug/L	2.0	1852.343	1527075.5	0.9
|	P	31	P	**439.169**	ug/L	3.7	4870.837	151369.1	2.3
|	K	39	K	**428.609**	ug/L	2.7	605845.902	4254703.5	2.4
|	Ca	44	Ca	**411.726**	ug/L	0.8	26271.930	142298.7	1.9
⌊>	Sc	45	Sc		ug/L		1611311.536	1768728.5	1.3
⌈	Fe	54	Fe	**479.025**	ug/L	3.2	24475.102	365288.2	1.3
|	Ti	47	Ti	**82.034**	ug/L	3.2	708.906	80500.6	1.3
|	V	51	V	**21.942**	ug/L	3.0	2027.133	236246.4	1.2
|	Cr	52	Cr	**8.613**	ug/L	2.3	7778.784	86143.4	0.8
|	Mn	55	Mn	**22.135**	ug/L	2.9	7127.334	334542.2	1.3
|	Co	59	Co	**22.430**	ug/L	3.0	248.891	237414.5	1.1
|	Ni	60	Ni	**20.513**	ug/L	2.6	2962.529	50036.4	0.6
|	Cu	65	Cu	**11.001**	ug/L	4.3	193.335	28308.0	3.6
|	Zn	68	Zn	**20.836**	ug/L	2.5	882.424	28897.4	0.9
|	As	75	As	**82.903**	ug/L	1.1	5662.027	189503.4	1.1
|	Se	82	Se	**82.672**	ug/L	4.5	136.669	17060.9	2.5
⌊>	Ge	74	Ge		ug/L		1671827.061	1881754.7	2.0
⌈	Sr	88	Sr	**-0.010**	ug/L	35.9	337.141	141.9	59.5
|	Mo	95	Mo	**99.812**	ug/L	1.5	25.556	388841.4	1.2
|	Ag	107	Ag	**12.758**	ug/L	0.1	61.111	128063.7	0.9
|	Cd	114	Cd	**2.194**	ug/L	1.4	126.896	12717.5	0.7
|	Sn	118	Sn	**102.303**	ug/L	1.7	240.002	723830.4	2.1
|	Sb	121	Sb	**60.812**	ug/L	0.8	105.556	563165.5	1.1
|	Ba	137	Ba	**83.242**	ug/L	2.5	91.111	310855.8	2.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1847971.4	0.9
⌈	Tl	203	Tl	**85.511**	ug/L	0.7	142.223	718052.5	0.2
|	Pb	208	Pb	**22.343**	ug/L	1.4	2983.459	617106.2	1.0
|	U	238	U	**0.010**	ug/L	6.4	35.556	363.3	6.4
| >	Lu	175	Lu		ug/L		1529228.797	1701397.7	0.8
⌊	Hg	200	Hg	**1.066**	ug/L	1.4	23.333	2096.8	1.9

Sample ID: LCSD

Sample Date/Time: Friday, September 23, 2011 11:39:49
Dataset File: C:\elandata\DataSet\092311PM\LCSD.021

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		113.984
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		109.769
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		112.557
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		112.241
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		111.259
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCSSRM

Sample Description: 20X
Sample Date/Time: Friday, September 23, 2011 11:43:59
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\LCSSRM.022

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**45.179**	ug/L	4.7	3.333	24360.8	2.2
⌊>	Li	6	Li		ug/L		154080.983	170526.6	2.6
⌈	Al	27	Al	**4210.616**	ug/L	6.0	8047.857	18317588.0	4.2
|	Na	23	Na	**347.920**	ug/L	4.0	94055.323	1882618.9	1.6
|	Mg	24	Mg	**1513.426**	ug/L	5.9	1852.343	4883537.9	3.7
|	P	31	P	**268.573**	ug/L	0.7	4870.837	89365.4	1.6
|	K	39	K	**1261.510**	ug/L	2.2	605845.902	10600182.2	2.0
|	Ca	44	Ca	**3399.720**	ug/L	4.0	26271.930	911496.0	4.2
⌊>	Sc	45	Sc		ug/L		1611311.536	1669696.1	2.3
⌈	Fe	54	Fe	**6897.407**	ug/L	0.6	24475.102	4553630.0	1.9
|	Ti	47	Ti	**90.860**	ug/L	1.5	708.906	82949.1	2.9
|	V	51	V	**59.080**	ug/L	1.1	2027.133	588719.5	2.5
|	Cr	52	Cr	**48.158**	ug/L	1.6	7778.784	410937.8	0.2
|	Mn	55	Mn	**232.721**	ug/L	1.2	7127.334	3203430.7	1.1
|	Co	59	Co	**72.262**	ug/L	1.2	248.891	711566.1	1.7
|	Ni	60	Ni	**56.594**	ug/L	3.2	2962.529	123024.2	1.7
|	Cu	65	Cu	**36.702**	ug/L	2.4	193.335	87430.1	1.1
|	Zn	68	Zn	**151.274**	ug/L	2.4	882.424	189497.3	1.2
|	As	75	As	**55.516**	ug/L	0.9	5662.027	120072.0	0.7
|	Se	82	Se	**105.046**	ug/L	1.3	136.669	20148.3	1.6
⌊>	Ge	74	Ge		ug/L		1671827.061	1751394.4	1.6
⌈	Sr	88	Sr	**56.129**	ug/L	0.5	337.141	1212454.5	1.2
|	Mo	95	Mo	**47.161**	ug/L	1.4	25.556	166780.2	0.8
|	Ag	107	Ag	**26.444**	ug/L	2.0	61.111	240849.2	1.5
|	Cd	114	Cd	**57.293**	ug/L	2.4	126.896	298242.0	2.4
|	Sn	118	Sn	**69.772**	ug/L	0.8	240.002	448154.4	0.6
|	Sb	121	Sb	**108.465**	ug/L	1.0	105.556	911662.9	1.0
|	Ba	137	Ba	**161.533**	ug/L	2.4	91.111	547420.8	1.6
⌊>	Rh	103	Rh		ug/L		1646429.824	1677399.8	0.8
⌈	Tl	203	Tl	**91.642**	ug/L	0.5	142.223	703587.1	1.3
|	Pb	208	Pb	**85.578**	ug/L	0.5	2983.459	2152471.4	1.0
|	U	238	U	**0.565**	ug/L	3.6	35.556	15983.4	2.8
| >	Lu	175	Lu		ug/L		1529228.797	1555557.3	1.2
⌊	Hg	200	Hg	**8.424**	ug/L	1.8	23.333	14990.1	2.1

Sample ID: LCSSRM

Sample Date/Time: Friday, September 23, 2011 11:43:59
Dataset File: C:\elandata\DataSet\092311PM\LCSSRM.022

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		110.673
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.623
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		104.759
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.881
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.722
⌊	Hg	200	Hg		

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Friday, September 23, 2011 11:48:18
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.023

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**50.354**	ug/L	2.4	3.333	26064.9	2.6
⌊>	Li	6	Li		ug/L		154080.983	163584.8	1.6
⌈	Al	27	Al	**511.370**	ug/L	2.0	8047.857	2181181.2	3.9
|	Na	23	Na	**5000.647**	ug/L	2.1	94055.323	25162516.0	3.7
|	Mg	24	Mg	**5183.777**	ug/L	2.1	1852.343	16338554.5	2.5
|	P	31	P	**5064.639**	ug/L	2.2	4870.837	1556913.2	0.9
|	K	39	K	**4954.951**	ug/L	3.8	605845.902	38842152.9	2.3
|	Ca	44	Ca	**4901.436**	ug/L	3.7	26271.930	1270725.2	1.9
⌊>	Sc	45	Sc		ug/L		1611311.536	1630022.2	2.0
⌈	Fe	54	Fe	**5146.216**	ug/L	1.7	24475.102	3261732.7	1.4
|	Ti	47	Ti	**50.397**	ug/L	3.8	708.906	44385.5	2.2
|	V	51	V	**51.416**	ug/L	2.4	2027.133	491093.4	0.8
|	Cr	52	Cr	**51.877**	ug/L	1.6	7778.784	423650.9	1.5
|	Mn	55	Mn	**51.875**	ug/L	3.1	7127.334	689862.6	3.0
|	Co	59	Co	**51.098**	ug/L	4.3	248.891	482024.2	2.2
|	Ni	60	Ni	**49.183**	ug/L	3.2	2962.529	102843.3	1.0
|	Cu	65	Cu	**50.329**	ug/L	3.1	193.335	114810.7	1.2
|	Zn	68	Zn	**50.266**	ug/L	2.6	882.424	60930.0	0.6
|	As	75	As	**49.059**	ug/L	3.1	5662.027	102325.7	1.3
|	Se	82	Se	**49.184**	ug/L	3.9	136.669	9110.2	2.1
⌊>	Ge	74	Ge		ug/L		1671827.061	1678520.4	2.1
⌈	Sr	88	Sr	**49.291**	ug/L	1.9	337.141	1029150.5	0.8
|	Mo	95	Mo	**49.268**	ug/L	1.0	25.556	168429.4	0.9
|	Ag	107	Ag	**50.847**	ug/L	1.9	61.111	447604.5	1.0
|	Cd	114	Cd	**50.109**	ug/L	1.0	126.896	252178.4	1.7
|	Sn	118	Sn	**49.421**	ug/L	0.3	240.002	306945.1	1.4
|	Sb	121	Sb	**49.966**	ug/L	2.1	105.556	405980.5	1.1
|	Ba	137	Ba	**49.866**	ug/L	1.4	91.111	163426.1	0.5
⌊>	Rh	103	Rh		ug/L		1646429.824	1621509.4	1.1
⌈	Tl	203	Tl	**50.575**	ug/L	1.4	142.223	380606.2	1.2
|	Pb	208	Pb	**51.098**	ug/L	1.2	2983.459	1260758.1	0.4
|	U	238	U	**49.038**	ug/L	1.5	35.556	1357814.1	0.8
| >	Lu	175	Lu		ug/L		1529228.797	1524566.5	0.9
⌊	Hg	200	Hg	**2.533**	ug/L	2.7	23.333	4434.0	3.0

Sample ID: QC Std 3

Sample Date/Time: Friday, September 23, 2011 11:48:18
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.023

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	100.707	
⌊>	Li	6	Li		106.168
⌈	Al	27	Al	102.274	
|	Na	23	Na	100.013	
|	Mg	24	Mg	103.676	
|	P	31	P	101.293	
|	K	39	K	99.099	
|	Ca	44	Ca	98.029	
⌊>	Sc	45	Sc		101.161
⌈	Fe	54	Fe	102.924	
|	Ti	47	Ti	100.793	
|	V	51	V	102.832	
|	Cr	52	Cr	103.753	
|	Mn	55	Mn	103.749	
|	Co	59	Co	102.196	
|	Ni	60	Ni	98.366	
|	Cu	65	Cu	100.658	
|	Zn	68	Zn	100.531	
|	As	75	As	98.119	
|	Se	82	Se	98.369	
⌊>	Ge	74	Ge		100.400
⌈	Sr	88	Sr	98.582	
|	Mo	95	Mo	98.537	
|	Ag	107	Ag	101.695	
|	Cd	114	Cd	100.218	
|	Sn	118	Sn	98.842	
|	Sb	121	Sb	99.932	
|	Ba	137	Ba	99.732	
⌊>	Rh	103	Rh		98.486
⌈	Tl	203	Tl	101.150	
|	Pb	208	Pb	102.196	
|	U	238	U	98.075	
| >	Lu	175	Lu		99.695
⌊	Hg	200	Hg	101.313	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Friday, September 23, 2011 11:52:29
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.024

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.013**	ug/L	136.2	3.333	10.0	88.2
⌊>	Li	6	Li		ug/L		154080.983	162083.4	1.9
⌈	Al	27	Al	**0.127**	ug/L	273.6	8047.857	8434.8	15.6
|	Na	23	Na	**-7.107**	ug/L	3.7	94055.323	57902.7	0.8
|	Mg	24	Mg	**0.042**	ug/L	244.6	1852.343	1949.0	14.7
|	P	31	P	**0.788**	ug/L	387.6	4870.837	5015.3	16.0
|	K	39	K	**-0.236**	ug/L	1056.1	605845.902	594309.9	1.0
|	Ca	44	Ca	**-22.221**	ug/L	15.4	26271.930	20356.7	1.8
⌊>	Sc	45	Sc		ug/L		1611311.536	1586177.3	2.6
⌈	Fe	54	Fe	**2.263**	ug/L	8.6	24475.102	25790.2	0.8
|	Ti	47	Ti	**-0.213**	ug/L	17.4	708.906	523.3	6.7
|	V	51	V	**0.074**	ug/L	395.1	2027.133	2732.5	101.9
|	Cr	52	Cr	**0.006**	ug/L	275.6	7778.784	7799.9	2.4
|	Mn	55	Mn	**-0.204**	ug/L	2.2	7127.334	4432.9	0.7
|	Co	59	Co	**0.015**	ug/L	9.1	248.891	390.0	2.6
|	Ni	60	Ni	**-0.207**	ug/L	4.5	2962.529	2533.4	1.5
|	Cu	65	Cu	**-0.016**	ug/L	10.5	193.335	156.7	2.1
|	Zn	68	Zn	**-0.135**	ug/L	32.0	882.424	718.5	7.3
|	As	75	As	**-0.121**	ug/L	127.6	5662.027	5401.9	4.8
|	Se	82	Se	**-0.160**	ug/L	14.4	136.669	107.2	3.2
⌊>	Ge	74	Ge		ug/L		1671827.061	1665171.1	0.8
⌈	Sr	88	Sr	**0.004**	ug/L	100.9	337.141	417.5	20.7
|	Mo	95	Mo	**0.336**	ug/L	14.2	25.556	1173.4	14.0
|	Ag	107	Ag	**0.005**	ug/L	59.1	61.111	105.6	25.3
|	Cd	114	Cd	**0.004**	ug/L	32.1	126.896	143.8	4.1
|	Sn	118	Sn	**0.286**	ug/L	6.3	240.002	2011.3	5.6
|	Sb	121	Sb	**0.023**	ug/L	29.0	105.556	294.4	18.8
|	Ba	137	Ba	**0.003**	ug/L	56.0	91.111	98.9	5.1
⌊>	Rh	103	Rh		ug/L		1646429.824	1620734.3	0.1
⌈	Tl	203	Tl	**0.232**	ug/L	13.3	142.223	1894.6	13.2
|	Pb	208	Pb	**0.000**	ug/L	1028.4	2983.459	2997.9	3.0
|	U	238	U	**0.017**	ug/L	14.6	35.556	515.6	14.5
| >	Lu	175	Lu		ug/L		1529228.797	1531435.7	1.1
⌊	Hg	200	Hg	**0.049**	ug/L	18.7	23.333	108.9	15.4

Sample ID: QC Std 4

Sample Date/Time: Friday, September 23, 2011 11:52:29
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.024

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		105.194
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.440
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.602
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		98.439
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.144
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-1-e SD

Sample Description: 50X
Sample Date/Time: Friday, September 23, 2011 11:56:41
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-e SD.025

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.099**	ug/L	26.1	3.333	60.0	25.5
⌊>	Li	6	Li		ug/L		154080.983	179312.9	1.2
⌈	Al	27	Al	**502.734**	ug/L	2.0	8047.857	2420465.1	2.4
|	Na	23	Na	**-5.034**	ug/L	10.9	94055.323	78938.9	4.5
|	Mg	24	Mg	**225.734**	ug/L	1.6	1852.343	805246.7	1.4
|	P	31	P	**204.014**	ug/L	1.2	4870.837	76154.7	0.8
|	K	39	K	**154.607**	ug/L	10.9	605845.902	2039033.8	7.2
|	Ca	44	Ca	**399.418**	ug/L	3.0	26271.930	144501.8	2.2
⌊>	Sc	45	Sc		ug/L		1611311.536	1840116.3	0.5
⌈	Fe	54	Fe	**30089.367**	ug/L	1.3	24475.102	20979636.3	0.9
|	Ti	47	Ti	**2.726**	ug/L	43.9	708.906	3404.9	33.8
|	V	51	V	**4.983**	ug/L	2.5	2027.133	54718.9	1.5
|	Cr	52	Cr	**0.342**	ug/L	27.6	7778.784	11668.1	5.5
|	Mn	55	Mn	**1946.210**	ug/L	3.5	7127.334	28357376.5	2.7
|	Co	59	Co	**6.365**	ug/L	0.8	248.891	66756.8	2.6
|	Ni	60	Ni	**0.500**	ug/L	13.4	2962.529	4415.1	2.5
|	Cu	65	Cu	**70.112**	ug/L	0.2	193.335	177031.5	1.7
|	Zn	68	Zn	**727.539**	ug/L	1.3	882.424	963205.7	0.7
|	As	75	As	**3603.939**	ug/L	1.0	5662.027	7867074.5	1.0
|	Se	82	Se	**-0.054**	ug/L	145.5	136.669	141.1	13.1
⌊>	Ge	74	Ge		ug/L		1671827.061	1858033.9	1.8
⌈	Sr	88	Sr	**19.765**	ug/L	1.3	337.141	464199.4	1.5
|	Mo	95	Mo	**0.504**	ug/L	5.8	25.556	1964.6	4.9
|	Ag	107	Ag	**4.724**	ug/L	1.1	61.111	46814.4	1.0
|	Cd	114	Cd	**4.210**	ug/L	3.1	126.896	23944.4	2.4
|	Sn	118	Sn	**0.349**	ug/L	1.9	240.002	2700.3	2.4
|	Sb	121	Sb	**120.224**	ug/L	0.3	105.556	1098154.4	0.9
|	Ba	137	Ba	**4.944**	ug/L	1.1	91.111	18306.2	0.6
⌊>	Rh	103	Rh		ug/L		1646429.824	1822880.7	0.8
⌈	Tl	203	Tl	**0.276**	ug/L	4.4	142.223	2500.2	3.8
|	Pb	208	Pb	**419.083**	ug/L	0.9	2983.459	11616774.5	1.0
|	U	238	U	**0.048**	ug/L	8.5	35.556	1527.9	8.1
| >	Lu	175	Lu		ug/L		1529228.797	1716227.0	0.3
⌊	Hg	200	Hg	**0.400**	ug/L	4.9	23.333	810.0	5.0

Sample ID: 580-28720-a-1-e SD

Sample Date/Time: Friday, September 23, 2011 11:56:41
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-e SD.025

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		116.376
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		114.200
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		111.138
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		110.717
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		112.228
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-1-e

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:00:52
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-e .026

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.382**	ug/L	9.9	3.333	223.3	11.3
⌊>	Li	6	Li		ug/L		154080.983	181198.8	1.8
⌈	Al	27	Al	**2478.274**	ug/L	2.2	8047.857	11895661.1	4.5
|	Na	23	Na	**4.001**	ug/L	19.7	94055.323	129975.6	2.9
|	Mg	24	Mg	**1134.544**	ug/L	2.5	1852.343	4038038.1	3.9
|	P	31	P	**1037.412**	ug/L	1.0	4870.837	364453.9	2.9
|	K	39	K	**825.392**	ug/L	6.2	605845.902	7875831.4	4.0
|	Ca	44	Ca	**2134.840**	ug/L	3.3	26271.930	641535.3	1.2
⌊>	Sc	45	Sc		ug/L		1611311.536	1839600.2	2.4
⌈	Fe	54	Fe	**148576.486**	ug/L	3.4	24475.102	102132621.6	1.4
|	Ti	47	Ti	**15.671**	ug/L	17.5	708.906	15616.5	16.3
|	V	51	V	**24.899**	ug/L	4.5	2027.133	260962.3	2.4
|	Cr	52	Cr	**1.553**	ug/L	6.0	7778.784	22128.2	2.1
|	Mn	55	Mn	**9778.918**	ug/L	3.7	7127.334	140612496.9	2.3
|	Co	59	Co	**31.203**	ug/L	1.0	248.891	321999.3	2.9
|	Ni	60	Ni	**6.517**	ug/L	1.4	2962.529	17717.6	1.7
|	Cu	65	Cu	**342.789**	ug/L	1.6	193.335	853498.3	1.1
|	Zn	68	Zn	**3765.631**	ug/L	1.1	882.424	4918319.1	2.2
|	As	75	As	**18222.753**	ug/L	1.5	5662.027	39243470.4	1.3
|	Se	82	Se	**0.683**	ug/L	14.7	136.669	286.1	6.7
⌊>	Ge	74	Ge		ug/L		1671827.061	1834486.8	2.7
⌈	Sr	88	Sr	**104.463**	ug/L	3.5	337.141	2362122.9	3.7
|	Mo	95	Mo	**1.877**	ug/L	4.1	25.556	6976.1	3.6
|	Ag	107	Ag	**24.198**	ug/L	0.4	61.111	230758.9	0.8
|	Cd	114	Cd	**20.993**	ug/L	0.9	126.896	114494.0	0.9
|	Sn	118	Sn	**1.221**	ug/L	2.4	240.002	8461.4	2.0
|	Sb	121	Sb	**630.537**	ug/L	2.1	105.556	5547867.4	2.0
|	Ba	137	Ba	**24.886**	ug/L	1.5	91.111	88384.8	1.5
⌊>	Rh	103	Rh		ug/L		1646429.824	1756098.7	0.5
⌈	Tl	203	Tl	**0.930**	ug/L	1.7	142.223	7635.4	1.3
|	Pb	208	Pb	**2097.525**	ug/L	0.7	2983.459	55242899.0	0.9
|	U	238	U	**0.215**	ug/L	2.8	35.556	6411.4	3.5
| >	Lu	175	Lu		ug/L		1529228.797	1631068.8	1.0
⌊	Hg	200	Hg	**1.875**	ug/L	2.0	23.333	3517.1	1.7

Sample ID: 580-28720-a-1-e

Sample Date/Time: Friday, September 23, 2011 12:00:52
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-e .026

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		117.600
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		114.168
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		109.729
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		106.661
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		106.660
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-1-f du

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:05:00
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-f du .027

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.352**	ug/L	15.5	3.333	201.1	14.1
⌊>	Li	6	Li		ug/L		154080.983	177194.5	1.5
⌈	Al	27	Al	**2590.433**	ug/L	4.0	8047.857	11962291.4	3.3
|	Na	23	Na	**4.510**	ug/L	21.5	94055.323	127976.3	5.6
|	Mg	24	Mg	**1143.029**	ug/L	5.7	1852.343	3913756.8	4.4
|	P	31	P	**1039.571**	ug/L	2.8	4870.837	351482.9	2.3
|	K	39	K	**850.718**	ug/L	1.5	605845.902	7800176.3	2.5
|	Ca	44	Ca	**2185.377**	ug/L	2.3	26271.930	631678.4	1.3
⌊>	Sc	45	Sc		ug/L		1611311.536	1770950.0	1.9
⌈	Fe	54	Fe	**146963.996**	ug/L	3.0	24475.102	101583378.5	1.5
|	Ti	47	Ti	**16.007**	ug/L	20.3	708.906	16008.0	18.2
|	V	51	V	**23.767**	ug/L	3.6	2027.133	250600.7	2.1
|	Cr	52	Cr	**1.448**	ug/L	4.5	7778.784	21328.1	1.6
|	Mn	55	Mn	**9640.619**	ug/L	3.8	7127.334	139383814.8	2.5
|	Co	59	Co	**30.481**	ug/L	2.6	248.891	316139.1	1.4
|	Ni	60	Ni	**6.703**	ug/L	1.9	2962.529	18230.5	2.9
|	Cu	65	Cu	**341.227**	ug/L	0.5	193.335	854330.5	1.4
|	Zn	68	Zn	**3762.026**	ug/L	1.5	882.424	4939827.6	1.6
|	As	75	As	**18297.692**	ug/L	0.8	5662.027	39624816.4	2.1
|	Se	82	Se	**0.615**	ug/L	18.1	136.669	273.9	6.7
⌊>	Ge	74	Ge		ug/L		1671827.061	1844188.5	1.6
⌈	Sr	88	Sr	**104.737**	ug/L	2.8	337.141	2365742.7	1.4
|	Mo	95	Mo	**1.885**	ug/L	1.6	25.556	7000.6	2.9
|	Ag	107	Ag	**23.953**	ug/L	1.4	61.111	228208.4	0.5
|	Cd	114	Cd	**21.118**	ug/L	1.5	126.896	115074.0	1.4
|	Sn	118	Sn	**1.179**	ug/L	1.6	240.002	8177.9	2.8
|	Sb	121	Sb	**633.745**	ug/L	1.7	105.556	5570932.7	0.5
|	Ba	137	Ba	**25.760**	ug/L	3.2	91.111	91393.7	2.2
⌊>	Rh	103	Rh		ug/L		1646429.824	1754725.9	1.5
⌈	Tl	203	Tl	**0.967**	ug/L	2.8	142.223	7761.0	2.9
|	Pb	208	Pb	**2149.994**	ug/L	0.9	2983.459	55377942.6	0.3
|	U	238	U	**0.212**	ug/L	3.6	35.556	6174.7	4.3
| >	Lu	175	Lu		ug/L		1529228.797	1595197.1	0.9
⌊	Hg	200	Hg	**1.982**	ug/L	1.3	23.333	3636.0	0.5

Sample ID: 580-28720-a-1-f du

Sample Date/Time: Friday, September 23, 2011 12:05:00
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-f du .027

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		115.001
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		109.907
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		110.310
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		106.578
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		104.314
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-1-g ms

Sample Description: 50X
Sample Date/Time: Friday, September 23, 2011 12:09:04
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-g ms .028

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.185**	ug/L	7.6	3.333	1187.8	6.5
⌊>	Li	6	Li		ug/L		154080.983	171414.6	1.4
⌈	Al	27	Al	**641.100**	ug/L	1.9	8047.857	2897846.0	0.6
|	Na	23	Na	**415.891**	ug/L	2.9	94055.323	2311904.4	1.7
|	Mg	24	Mg	**639.475**	ug/L	3.2	1852.343	2139949.9	2.8
|	P	31	P	**625.241**	ug/L	2.6	4870.837	208499.4	0.3
|	K	39	K	**546.349**	ug/L	3.6	605845.902	5122948.0	1.9
|	Ca	44	Ca	**842.305**	ug/L	2.1	26271.930	255138.0	2.5
⌊>	Sc	45	Sc		ug/L		1611311.536	1729609.2	2.5
⌈	Fe	54	Fe	**26878.392**	ug/L	1.2	24475.102	18026030.7	0.9
|	Ti	47	Ti	**80.788**	ug/L	3.7	708.906	75310.4	3.4
|	V	51	V	**25.960**	ug/L	1.0	2027.133	265082.9	0.6
|	Cr	52	Cr	**8.639**	ug/L	2.3	7778.784	82030.4	1.7
|	Mn	55	Mn	**1712.986**	ug/L	1.3	7127.334	24007756.8	0.9
|	Co	59	Co	**26.921**	ug/L	1.8	248.891	270613.0	1.9
|	Ni	60	Ni	**21.211**	ug/L	1.6	2962.529	49030.7	1.3
|	Cu	65	Cu	**73.134**	ug/L	2.8	193.335	177557.1	2.6
|	Zn	68	Zn	**680.856**	ug/L	1.8	882.424	866960.1	1.7
|	As	75	As	**3314.397**	ug/L	1.3	5662.027	6958698.7	1.7
|	Se	82	Se	**81.131**	ug/L	2.4	136.669	15910.1	2.8
⌊>	Ge	74	Ge		ug/L		1671827.061	1786695.6	0.4
⌈	Sr	88	Sr	**40.222**	ug/L	2.1	337.141	919752.3	1.4
|	Mo	95	Mo	**99.062**	ug/L	2.3	25.556	370814.1	1.7
|	Ag	107	Ag	**16.116**	ug/L	2.1	61.111	155414.3	1.7
|	Cd	114	Cd	**6.202**	ug/L	1.9	126.896	34296.9	1.1
|	Sn	118	Sn	**102.121**	ug/L	2.8	240.002	694179.7	1.9
|	Sb	121	Sb	**157.990**	ug/L	1.3	105.556	1405660.2	0.6
|	Ba	137	Ba	**87.579**	ug/L	2.0	91.111	314244.5	1.2
⌊>	Rh	103	Rh		ug/L		1646429.824	1775733.2	0.9
⌈	Tl	203	Tl	**84.512**	ug/L	1.0	142.223	687410.5	1.2
|	Pb	208	Pb	**409.348**	ug/L	0.5	2983.459	10895486.8	0.4
|	U	238	U	**0.042**	ug/L	3.3	35.556	1285.6	3.2
| >	Lu	175	Lu		ug/L		1529228.797	1647953.8	0.2
⌊	Hg	200	Hg	**1.449**	ug/L	4.6	23.333	2752.5	4.3

Sample ID: 580-28720-a-1-g ms

Sample Date/Time: Friday, September 23, 2011 12:09:04

Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-g ms .028

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		111.250
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		107.342
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		106.871
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		107.854
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		107.764
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-1-h msd

Sample Description: 50X
Sample Date/Time: Friday, September 23, 2011 12:13:10
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-h msd .029

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.308**	ug/L	4.5	3.333	1196.7	2.1
⌊>	Li	6	Li		ug/L		154080.983	163491.7	2.5
⌈	Al	27	Al	**699.344**	ug/L	2.0	8047.857	3058957.9	2.1
|	Na	23	Na	**421.815**	ug/L	2.6	94055.323	2267876.1	0.5
|	Mg	24	Mg	**657.160**	ug/L	1.3	1852.343	2128600.4	1.9
|	P	31	P	**668.766**	ug/L	6.6	4870.837	215366.6	4.4
|	K	39	K	**584.909**	ug/L	2.8	605845.902	5263657.3	0.7
|	Ca	44	Ca	**848.790**	ug/L	2.2	26271.930	248612.1	2.4
⌊>	Sc	45	Sc		ug/L		1611311.536	1673876.4	2.3
⌈	Fe	54	Fe	**30493.087**	ug/L	1.5	24475.102	20057301.1	2.6
|	Ti	47	Ti	**86.025**	ug/L	4.8	708.906	78628.5	5.6
|	V	51	V	**27.095**	ug/L	4.7	2027.133	271221.1	4.0
|	Cr	52	Cr	**8.903**	ug/L	3.1	7778.784	82659.6	1.8
|	Mn	55	Mn	**1885.508**	ug/L	0.8	7127.334	25917373.0	0.4
|	Co	59	Co	**28.367**	ug/L	0.8	248.891	279657.7	1.2
|	Ni	60	Ni	**22.564**	ug/L	1.1	2962.529	50958.5	0.6
|	Cu	65	Cu	**151.776**	ug/L	1.2	193.335	361184.6	0.6
|	Zn	68	Zn	**745.931**	ug/L	1.4	882.424	931482.1	1.2
|	As	75	As	**3969.905**	ug/L	2.5	5662.027	8172759.6	2.2
|	Se	82	Se	**84.283**	ug/L	0.9	136.669	16203.8	0.9
⌊>	Ge	74	Ge		ug/L		1671827.061	1752425.9	1.2
⌈	Sr	88	Sr	**59.124**	ug/L	4.2	337.141	1300231.3	3.9
|	Mo	95	Mo	**105.828**	ug/L	3.1	25.556	380989.6	2.2
|	Ag	107	Ag	**19.425**	ug/L	1.3	61.111	180161.1	0.1
|	Cd	114	Cd	**6.358**	ug/L	0.9	126.896	33820.3	2.1
|	Sn	118	Sn	**107.834**	ug/L	2.4	240.002	705002.5	1.0
|	Sb	121	Sb	**171.475**	ug/L	1.5	105.556	1467366.0	0.7
|	Ba	137	Ba	**92.754**	ug/L	2.6	91.111	320076.4	1.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1708013.0	1.4
⌈	Tl	203	Tl	**88.698**	ug/L	0.5	142.223	701436.0	0.6
|	Pb	208	Pb	**591.193**	ug/L	0.4	2983.459	15297933.3	0.5
|	U	238	U	**0.040**	ug/L	4.4	35.556	1206.7	4.2
| >	Lu	175	Lu		ug/L		1529228.797	1602251.2	0.2
⌊	Hg	200	Hg	**1.467**	ug/L	5.8	23.333	2709.1	5.6

Sample ID: 580-28720-a-1-h msd

Sample Date/Time: Friday, September 23, 2011 12:13:10

Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-h msd .029

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		106.108
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.883
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		104.821
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		103.740
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		104.775
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-1-e PDS

Sample Description: 50X
Sample Date/Time: Friday, September 23, 2011 12:17:15
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-e PDS.030

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.283**	ug/L	3.1	3.333	1193.4	1.7
⌊>	Li	6	Li		ug/L		154080.983	164749.3	2.4
⌈	Al	27	Al	**1185.331**	ug/L	4.4	8047.857	5139702.6	3.7
|	Na	23	Na	**456.802**	ug/L	1.4	94055.323	2430220.4	0.9
|	Mg	24	Mg	**714.292**	ug/L	0.8	1852.343	2296307.8	1.0
|	P	31	P	**668.459**	ug/L	2.9	4870.837	213816.4	2.0
|	K	39	K	**922.553**	ug/L	4.4	605845.902	7882328.0	4.2
|	Ca	44	Ca	**874.282**	ug/L	2.9	26271.930	253402.8	3.5
⌊>	Sc	45	Sc		ug/L		1611311.536	1661288.3	0.8
⌈	Fe	54	Fe	**30188.491**	ug/L	1.5	24475.102	19939625.3	2.3
|	Ti	47	Ti	**99.534**	ug/L	4.7	708.906	91218.5	4.7
|	V	51	V	**28.747**	ug/L	2.7	2027.133	288880.0	2.5
|	Cr	52	Cr	**9.259**	ug/L	3.9	7778.784	85989.2	2.1
|	Mn	55	Mn	**1966.873**	ug/L	1.3	7127.334	27152697.9	2.3
|	Co	59	Co	**29.529**	ug/L	1.3	248.891	292326.6	1.4
|	Ni	60	Ni	**22.880**	ug/L	2.2	2962.529	51858.5	3.3
|	Cu	65	Cu	**82.230**	ug/L	2.3	193.335	196578.9	0.9
|	Zn	68	Zn	**746.277**	ug/L	2.4	882.424	935696.6	1.0
|	As	75	As	**3704.655**	ug/L	2.0	5662.027	7658794.8	0.7
|	Se	82	Se	**86.123**	ug/L	2.8	136.669	16620.9	1.4
⌊>	Ge	74	Ge		ug/L		1671827.061	1759828.7	1.4
⌈	Sr	88	Sr	**32.330**	ug/L	15.5	337.141	717014.0	15.9
|	Mo	95	Mo	**110.370**	ug/L	0.5	25.556	400492.9	0.3
|	Ag	107	Ag	**18.188**	ug/L	0.4	61.111	170011.2	0.2
|	Cd	114	Cd	**6.531**	ug/L	0.8	126.896	35005.6	0.9
|	Sn	118	Sn	**109.609**	ug/L	2.2	240.002	722264.6	1.9
|	Sb	121	Sb	**185.852**	ug/L	0.5	105.556	1602845.3	0.3
|	Ba	137	Ba	**96.014**	ug/L	0.5	91.111	333962.0	0.8
⌊>	Rh	103	Rh		ug/L		1646429.824	1721202.5	0.4
⌈	Tl	203	Tl	**91.209**	ug/L	1.1	142.223	719111.9	1.5
|	Pb	208	Pb	**450.613**	ug/L	0.5	2983.459	11625568.9	0.7
|	U	238	U	**0.057**	ug/L	39.1	35.556	1695.7	37.7
| >	Lu	175	Lu		ug/L		1529228.797	1597387.9	0.5
⌊	Hg	200	Hg	**1.477**	ug/L	4.9	23.333	2719.1	5.0

Sample ID: 580-28720-a-1-e PDS

Sample Date/Time: Friday, September 23, 2011 12:17:15
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-e PDS.030

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		106.924
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.102
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		105.264
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		104.542
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		104.457
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-2-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:21:21
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-2-b .031

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.502**	ug/L	4.6	3.333	276.7	5.3
⌊>	Li	6	Li		ug/L		154080.983	171898.5	2.6
⌈	Al	27	Al	**15795.870**	ug/L	4.3	8047.857	69998836.1	3.4
|	Na	23	Na	**140.356**	ug/L	13.7	94055.323	831266.7	8.7
|	Mg	24	Mg	**6019.607**	ug/L	1.9	1852.343	19793118.1	1.8
|	P	31	P	**969.815**	ug/L	3.5	4870.837	315181.2	2.3
|	K	39	K	**1025.784**	ug/L	2.6	605845.902	8899775.7	2.9
|	Ca	44	Ca	**8503.291**	ug/L	2.0	26271.930	2281787.9	4.8
⌊>	Sc	45	Sc		ug/L		1611311.536	1701113.1	3.5
⌈	Fe	54	Fe	**129145.331**	ug/L	2.1	24475.102	85052292.6	1.0
|	Ti	47	Ti	**187.157**	ug/L	1.7	708.906	170627.1	3.6
|	V	51	V	**140.885**	ug/L	2.5	2027.133	1405311.2	3.4
|	Cr	52	Cr	**21.950**	ug/L	2.1	7778.784	192337.4	1.4
|	Mn	55	Mn	**3998.110**	ug/L	2.2	7127.334	55076620.0	0.1
|	Co	59	Co	**30.086**	ug/L	1.5	248.891	297317.0	1.5
|	Ni	60	Ni	**16.761**	ug/L	1.8	2962.529	38745.8	0.6
|	Cu	65	Cu	**581.489**	ug/L	1.6	193.335	1386614.2	0.8
|	Zn	68	Zn	**6821.744**	ug/L	1.8	882.424	8531889.6	1.3
|	As	75	As	**16919.655**	ug/L	0.5	5662.027	34905048.2	1.8
|	Se	82	Se	**3.281**	ug/L	3.0	136.669	770.6	4.1
⌊>	Ge	74	Ge		ug/L		1671827.061	1757000.3	2.2
⌈	Sr	88	Sr	**33.128**	ug/L	2.8	337.141	718512.4	1.0
|	Mo	95	Mo	**7.879**	ug/L	2.6	25.556	27996.3	1.1
|	Ag	107	Ag	**40.610**	ug/L	2.0	61.111	371341.1	0.4
|	Cd	114	Cd	**44.616**	ug/L	3.7	126.896	233183.9	2.6
|	Sn	118	Sn	**2.071**	ug/L	5.8	240.002	13604.3	6.8
|	Sb	121	Sb	**307.270**	ug/L	2.5	105.556	2592773.1	1.4
|	Ba	137	Ba	**46.955**	ug/L	1.4	91.111	159864.0	1.1
⌊>	Rh	103	Rh		ug/L		1646429.824	1684565.1	2.1
⌈	Tl	203	Tl	**0.369**	ug/L	3.1	142.223	2962.5	4.2
|	Pb	208	Pb	**2375.215**	ug/L	0.7	2983.459	59307321.1	0.6
|	U	238	U	**1.938**	ug/L	0.5	35.556	54473.7	1.6
| >	Lu	175	Lu		ug/L		1529228.797	1546409.4	1.3
⌊	Hg	200	Hg	**2.233**	ug/L	4.0	23.333	3966.1	2.8

Sample ID: 580-28720-a-2-b

Sample Date/Time: Friday, September 23, 2011 12:21:21
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-2-b .031

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		111.564
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		105.573
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		105.095
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		102.316
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.123
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-3-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:25:27
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-3-b .032

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.737**	ug/L	11.7	3.333	426.7	10.2
⌊>	Li	6	Li		ug/L		154080.983	181601.6	1.4
⌈	Al	27	Al	**66274.287**	ug/L	2.0	8047.857	311679289.8	4.5
|	Na	23	Na	**35.877**	ug/L	6.1	94055.323	304130.8	3.1
|	Mg	24	Mg	**4214.624**	ug/L	2.6	1852.343	14694925.2	1.0
|	P	31	P	**1181.851**	ug/L	1.9	4870.837	406209.4	1.4
|	K	39	K	**659.326**	ug/L	1.5	605845.902	6309264.4	2.5
|	Ca	44	Ca	**684.200**	ug/L	4.3	26271.930	221530.1	1.0
⌊>	Sc	45	Sc		ug/L		1611311.536	1803883.4	3.0
⌈	Fe	54	Fe	**45553.237**	ug/L	0.7	24475.102	30595485.0	1.1
|	Ti	47	Ti	**749.151**	ug/L	1.1	708.906	693629.1	2.3
|	V	51	V	**43.185**	ug/L	1.4	2027.133	440467.6	2.1
|	Cr	52	Cr	**22.583**	ug/L	2.9	7778.784	201401.1	1.5
|	Mn	55	Mn	**360.058**	ug/L	2.9	7127.334	5063084.5	3.3
|	Co	59	Co	**5.134**	ug/L	2.6	248.891	51936.5	3.3
|	Ni	60	Ni	**12.609**	ug/L	1.6	2962.529	30491.4	0.2
|	Cu	65	Cu	**576.093**	ug/L	1.9	193.335	1399968.8	0.6
|	Zn	68	Zn	**146.745**	ug/L	0.5	882.424	187987.1	1.2
|	As	75	As	**393.586**	ug/L	1.8	5662.027	833299.9	1.4
|	Se	82	Se	**4.463**	ug/L	5.7	136.669	1015.0	4.5
⌊>	Ge	74	Ge		ug/L		1671827.061	1790455.3	1.6
⌈	Sr	88	Sr	**6.992**	ug/L	1.4	337.141	149813.5	1.3
|	Mo	95	Mo	**23.732**	ug/L	0.2	25.556	83106.6	0.3
|	Ag	107	Ag	**1.550**	ug/L	2.1	61.111	14038.0	1.9
|	Cd	114	Cd	**1.065**	ug/L	1.8	126.896	5615.6	1.7
|	Sn	118	Sn	**0.822**	ug/L	2.1	240.002	5467.7	2.2
|	Sb	121	Sb	**8.995**	ug/L	0.8	105.556	74950.6	0.7
|	Ba	137	Ba	**44.707**	ug/L	1.1	91.111	150078.7	1.2
⌊>	Rh	103	Rh		ug/L		1646429.824	1660624.9	0.2
⌈	Tl	203	Tl	**0.194**	ug/L	1.3	142.223	1607.9	1.0
|	Pb	208	Pb	**71.554**	ug/L	0.5	2983.459	1772737.1	0.3
|	U	238	U	**1.272**	ug/L	0.5	35.556	35430.6	0.7
| >	Lu	175	Lu		ug/L		1529228.797	1531779.8	0.4
⌊	Hg	200	Hg	**0.399**	ug/L	6.6	23.333	721.1	6.6

Sample ID: 580-28720-a-3-b

Sample Date/Time: Friday, September 23, 2011 12:25:27
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-3-b .032

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		117.861
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		111.951
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		107.096
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.862
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.167
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-4-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:29:34
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-4-b .033

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.530**	ug/L	10.3	3.333	324.4	7.6
⌊>	Li	6	Li		ug/L		154080.983	191303.1	3.0
⌈	Al	27	Al	**30642.425**	ug/L	2.7	8047.857	144678493.1	2.3
|	Na	23	Na	**65.624**	ug/L	16.4	94055.323	471928.2	14.1
|	Mg	24	Mg	**314.603**	ug/L	3.1	1852.343	1104083.1	3.4
|	P	31	P	**726.614**	ug/L	0.8	4870.837	252996.3	0.9
|	K	39	K	**94.239**	ug/L	3.0	605845.902	1489914.3	3.3
|	Ca	44	Ca	**490.086**	ug/L	1.6	26271.930	167873.2	2.5
⌊>	Sc	45	Sc		ug/L		1611311.536	1811677.3	1.7
⌈	Fe	54	Fe	**8625.090**	ug/L	1.5	24475.102	5996232.8	0.8
|	Ti	47	Ti	**280.803**	ug/L	2.9	708.906	268601.8	2.8
|	V	51	V	**12.228**	ug/L	2.4	2027.133	130240.3	2.8
|	Cr	52	Cr	**5.643**	ug/L	2.9	7778.784	58355.6	1.7
|	Mn	55	Mn	**684.898**	ug/L	0.1	7127.334	9925613.0	1.0
|	Co	59	Co	**33.603**	ug/L	1.0	248.891	349013.1	0.6
|	Ni	60	Ni	**1.166**	ug/L	7.4	2962.529	5879.0	3.9
|	Cu	65	Cu	**36.290**	ug/L	0.9	193.335	91170.0	1.6
|	Zn	68	Zn	**31.085**	ug/L	3.4	882.424	41834.5	3.0
|	As	75	As	**79.181**	ug/L	0.8	5662.027	177904.0	0.5
|	Se	82	Se	**1.843**	ug/L	4.0	136.669	521.1	3.4
⌊>	Ge	74	Ge		ug/L		1671827.061	1846556.8	1.0
⌈	Sr	88	Sr	**4.975**	ug/L	0.9	337.141	111280.0	1.9
|	Mo	95	Mo	**1.324**	ug/L	2.0	25.556	4858.6	0.9
|	Ag	107	Ag	**0.979**	ug/L	2.2	61.111	9271.9	4.1
|	Cd	114	Cd	**0.430**	ug/L	5.1	126.896	2443.5	6.0
|	Sn	118	Sn	**0.431**	ug/L	1.5	240.002	3110.3	3.0
|	Sb	121	Sb	**2.282**	ug/L	2.8	105.556	19908.3	1.9
|	Ba	137	Ba	**9.837**	ug/L	2.4	91.111	34506.1	1.5
⌊>	Rh	103	Rh		ug/L		1646429.824	1732034.2	2.1
⌈	Tl	203	Tl	**0.222**	ug/L	6.0	142.223	1880.1	5.3
|	Pb	208	Pb	**20.243**	ug/L	0.1	2983.459	520697.4	0.7
|	U	238	U	**0.602**	ug/L	2.3	35.556	17346.1	3.0
| >	Lu	175	Lu		ug/L		1529228.797	1583626.8	0.8
⌊	Hg	200	Hg	**0.195**	ug/L	2.9	23.333	377.8	3.1

Sample ID: 580-28720-a-4-b

Sample Date/Time: Friday, September 23, 2011 12:29:34
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-4-b .033

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		124.158
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		112.435
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		110.451
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		105.199
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		103.557
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-5-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:33:41
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-5-b .034

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.494**	ug/L	10.7	3.333	301.1	10.3
⌊>	Li	6	Li		ug/L		154080.983	190113.1	3.3
⌈	Al	27	Al	**37677.467**	ug/L	3.4	8047.857	187120207.0	2.1
|	Na	23	Na	**65.172**	ug/L	13.6	94055.323	493446.8	11.3
|	Mg	24	Mg	**3354.888**	ug/L	4.4	1852.343	12358572.0	2.2
|	P	31	P	**405.795**	ug/L	1.9	4870.837	151175.7	0.9
|	K	39	K	**453.999**	ug/L	2.2	605845.902	4814314.0	2.7
|	Ca	44	Ca	**1207.566**	ug/L	1.4	26271.930	389622.6	1.6
⌊>	Sc	45	Sc		ug/L		1611311.536	1906219.2	2.6
⌈	Fe	54	Fe	**34745.874**	ug/L	0.6	24475.102	23963773.3	0.2
|	Ti	47	Ti	**1312.677**	ug/L	3.2	708.906	1247012.7	3.2
|	V	51	V	**75.889**	ug/L	1.7	2027.133	792910.0	1.8
|	Cr	52	Cr	**15.944**	ug/L	3.6	7778.784	148523.1	3.4
|	Mn	55	Mn	**176.923**	ug/L	2.3	7127.334	2557760.1	1.9
|	Co	59	Co	**4.659**	ug/L	3.0	248.891	48398.5	2.6
|	Ni	60	Ni	**8.541**	ug/L	0.3	2962.529	22256.2	0.4
|	Cu	65	Cu	**38.331**	ug/L	2.5	193.335	95831.6	2.1
|	Zn	68	Zn	**46.877**	ug/L	3.5	882.424	62303.5	3.1
|	As	75	As	**65.928**	ug/L	0.9	5662.027	148487.0	0.6
|	Se	82	Se	**1.567**	ug/L	3.5	136.669	463.3	2.0
⌊>	Ge	74	Ge		ug/L		1671827.061	1837993.6	0.4
⌈	Sr	88	Sr	**9.355**	ug/L	1.1	337.141	207544.1	0.6
|	Mo	95	Mo	**1.895**	ug/L	1.0	25.556	6900.6	2.1
|	Ag	107	Ag	**0.737**	ug/L	1.4	61.111	6949.5	0.7
|	Cd	114	Cd	**0.199**	ug/L	11.7	126.896	1195.9	9.6
|	Sn	118	Sn	**1.118**	ug/L	1.9	240.002	7609.8	2.2
|	Sb	121	Sb	**2.414**	ug/L	2.6	105.556	20913.1	2.0
|	Ba	137	Ba	**42.727**	ug/L	1.1	91.111	148593.3	0.4
⌊>	Rh	103	Rh		ug/L		1646429.824	1720506.3	1.2
⌈	Tl	203	Tl	**0.151**	ug/L	4.9	142.223	1323.4	3.3
|	Pb	208	Pb	**31.039**	ug/L	0.3	2983.459	796870.7	0.8
|	U	238	U	**0.490**	ug/L	1.0	35.556	14128.1	0.2
| >	Lu	175	Lu		ug/L		1529228.797	1583860.3	1.1
⌊	Hg	200	Hg	**0.205**	ug/L	7.1	23.333	395.6	5.6

Sample ID: 580-28720-a-5-b

Sample Date/Time: Friday, September 23, 2011 12:33:41
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-5-b .034

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		123.385
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		118.302
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		109.939
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		104.499
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		103.572
⌊	Hg	200	Hg		

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Friday, September 23, 2011 12:37:50
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.035

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**50.738**	ug/L	1.6	3.333	26094.9	1.9
⌊>	Li	6	Li		ug/L		154080.983	162529.4	1.2
⌈	Al	27	Al	**501.252**	ug/L	3.8	8047.857	2120485.4	5.8
|	Na	23	Na	**4949.997**	ug/L	0.5	94055.323	24690473.0	1.5
|	Mg	24	Mg	**5078.283**	ug/L	0.8	1852.343	15872237.7	2.7
|	P	31	P	**5047.602**	ug/L	3.1	4870.837	1539434.1	4.9
|	K	39	K	**5059.087**	ug/L	4.9	605845.902	39300077.9	3.0
|	Ca	44	Ca	**5004.315**	ug/L	1.1	26271.930	1286165.6	0.9
⌊>	Sc	45	Sc		ug/L		1611311.536	1616130.4	2.0
⌈	Fe	54	Fe	**5065.566**	ug/L	4.0	24475.102	3246092.9	2.1
|	Ti	47	Ti	**49.031**	ug/L	0.6	708.906	43710.1	2.3
|	V	51	V	**51.348**	ug/L	3.1	2027.133	496097.9	3.4
|	Cr	52	Cr	**51.746**	ug/L	3.0	7778.784	427268.2	1.2
|	Mn	55	Mn	**51.363**	ug/L	2.6	7127.334	690710.3	1.0
|	Co	59	Co	**51.105**	ug/L	3.4	248.891	487609.2	1.7
|	Ni	60	Ni	**48.754**	ug/L	3.1	2962.529	103119.7	0.5
|	Cu	65	Cu	**50.149**	ug/L	2.3	193.335	115702.2	0.6
|	Zn	68	Zn	**49.855**	ug/L	4.5	882.424	61102.6	2.1
|	As	75	As	**50.175**	ug/L	2.8	5662.027	105700.8	0.2
|	Se	82	Se	**48.308**	ug/L	3.8	136.669	9050.7	1.3
⌊>	Ge	74	Ge		ug/L		1671827.061	1697547.7	2.5
⌈	Sr	88	Sr	**49.871**	ug/L	0.7	337.141	1041961.8	0.4
|	Mo	95	Mo	**49.291**	ug/L	1.0	25.556	168610.4	1.2
|	Ag	107	Ag	**50.216**	ug/L	1.5	61.111	442337.8	1.2
|	Cd	114	Cd	**50.228**	ug/L	0.4	126.896	252917.8	1.0
|	Sn	118	Sn	**50.124**	ug/L	0.9	240.002	311468.9	0.5
|	Sb	121	Sb	**49.801**	ug/L	0.4	105.556	404935.9	1.0
|	Ba	137	Ba	**48.817**	ug/L	1.0	91.111	160102.3	1.6
⌊>	Rh	103	Rh		ug/L		1646429.824	1622421.5	0.6
⌈	Tl	203	Tl	**50.560**	ug/L	2.1	142.223	374766.2	1.6
|	Pb	208	Pb	**51.281**	ug/L	1.8	2983.459	1246256.3	0.9
|	U	238	U	**48.144**	ug/L	2.1	35.556	1313031.1	1.1
| >	Lu	175	Lu		ug/L		1529228.797	1501751.5	1.2
⌊	Hg	200	Hg	**2.538**	ug/L	6.2	23.333	4374.0	5.2

Sample ID: QC Std 3

Sample Date/Time: Friday, September 23, 2011 12:37:50
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.035

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	101.475	
⌊>	Li	6	Li		105.483
⌈	Al	27	Al	100.250	
|	Na	23	Na	99.000	
|	Mg	24	Mg	101.566	
|	P	31	P	100.952	
|	K	39	K	101.182	
|	Ca	44	Ca	100.086	
⌊>	Sc	45	Sc		100.299
⌈	Fe	54	Fe	101.311	
|	Ti	47	Ti	98.062	
|	V	51	V	102.696	
|	Cr	52	Cr	103.493	
|	Mn	55	Mn	102.725	
|	Co	59	Co	102.211	
|	Ni	60	Ni	97.507	
|	Cu	65	Cu	100.298	
|	Zn	68	Zn	99.710	
|	As	75	As	100.351	
|	Se	82	Se	96.616	
⌊>	Ge	74	Ge		101.538
⌈	Sr	88	Sr	99.742	
|	Mo	95	Mo	98.583	
|	Ag	107	Ag	100.433	
|	Cd	114	Cd	100.456	
|	Sn	118	Sn	100.249	
|	Sb	121	Sb	99.602	
|	Ba	137	Ba	97.634	
⌊>	Rh	103	Rh		98.542
⌈	Tl	203	Tl	101.120	
|	Pb	208	Pb	102.563	
|	U	238	U	96.289	
|>	Lu	175	Lu		98.203
⌊	Hg	200	Hg	101.506	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Friday, September 23, 2011 12:42:01
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.036

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.021**	ug/L	15.5	3.333	14.4	13.3
⌊>	Li	6	Li		ug/L		154080.983	166104.8	2.2
⌈	Al	27	Al	**0.146**	ug/L	37.6	8047.857	8550.3	0.4
|	Na	23	Na	**-10.426**	ug/L	4.2	94055.323	41880.3	6.1
|	Mg	24	Mg	**-0.112**	ug/L	44.0	1852.343	1483.4	7.8
|	P	31	P	**1.121**	ug/L	96.6	4870.837	5149.8	8.2
|	K	39	K	**0.801**	ug/L	272.5	605845.902	604126.1	0.2
|	Ca	44	Ca	**-27.327**	ug/L	7.5	26271.930	19164.0	0.4
⌊>	Sc	45	Sc		ug/L		1611311.536	1591395.8	2.5
⌈	Fe	54	Fe	**3.866**	ug/L	55.5	24475.102	26580.1	4.3
|	Ti	47	Ti	**-0.193**	ug/L	61.3	708.906	535.6	18.4
|	V	51	V	**0.213**	ug/L	65.5	2027.133	4004.2	33.7
|	Cr	52	Cr	**0.071**	ug/L	38.4	7778.784	8249.0	2.2
|	Mn	55	Mn	**-0.154**	ug/L	7.8	7127.334	5049.8	2.2
|	Co	59	Co	**-0.004**	ug/L	67.8	248.891	206.7	13.8
|	Ni	60	Ni	**-0.752**	ug/L	20.0	2962.529	1423.4	20.5
|	Cu	65	Cu	**-0.033**	ug/L	13.9	193.335	117.8	8.6
|	Zn	68	Zn	**-0.146**	ug/L	32.1	882.424	700.5	7.2
|	As	75	As	**0.088**	ug/L	208.3	5662.027	5766.2	5.4
|	Se	82	Se	**-0.105**	ug/L	23.1	136.669	116.1	3.0
⌊>	Ge	74	Ge		ug/L		1671827.061	1652502.5	0.9
⌈	Sr	88	Sr	**-0.001**	ug/L	195.0	337.141	308.9	18.9
|	Mo	95	Mo	**0.172**	ug/L	26.3	25.556	625.6	24.9
|	Ag	107	Ag	**0.003**	ug/L	135.9	61.111	88.9	41.8
|	Cd	114	Cd	**-0.003**	ug/L	273.1	126.896	110.4	41.3
|	Sn	118	Sn	**0.149**	ug/L	5.7	240.002	1186.7	3.9
|	Sb	121	Sb	**0.102**	ug/L	8.4	105.556	948.9	7.0
|	Ba	137	Ba	**-0.002**	ug/L	492.8	91.111	85.6	35.4
⌊>	Rh	103	Rh		ug/L		1646429.824	1654118.3	0.6
⌈	Tl	203	Tl	**0.116**	ug/L	11.2	142.223	1007.8	10.9
|	Pb	208	Pb	**0.008**	ug/L	41.1	2983.459	3147.9	1.5
|	U	238	U	**0.013**	ug/L	22.3	35.556	394.5	21.6
| >	Lu	175	Lu		ug/L		1529228.797	1508820.4	1.3
⌊	Hg	200	Hg	**0.025**	ug/L	22.0	23.333	66.7	15.0

Sample ID: QC Std 4

Sample Date/Time: Friday, September 23, 2011 12:42:01
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.036

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		107.804
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.764
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		98.844
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.467
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		98.665
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-6-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:46:12
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-6-b .037

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.103**	ug/L	11.5	3.333	64.4	11.9
⌊>	Li	6	Li		ug/L		154080.983	184740.3	1.3
⌈	Al	27	Al	**14590.303**	ug/L	4.1	8047.857	69941209.8	2.6
|	Na	23	Na	**57.760**	ug/L	20.2	94055.323	433586.5	13.9
|	Mg	24	Mg	**2413.936**	ug/L	1.9	1852.343	8587348.5	0.2
|	P	31	P	**352.846**	ug/L	2.5	4870.837	127621.1	2.4
|	K	39	K	**394.850**	ug/L	2.3	605845.902	4130894.3	0.9
|	Ca	44	Ca	**239.723**	ug/L	4.8	26271.930	98669.6	1.6
⌊>	Sc	45	Sc		ug/L		1611311.536	1839828.1	2.0
⌈	Fe	54	Fe	**34182.565**	ug/L	0.9	24475.102	23883654.5	0.6
|	Ti	47	Ti	**1090.677**	ug/L	1.2	708.906	1049830.4	1.7
|	V	51	V	**60.839**	ug/L	1.6	2027.133	644353.2	0.6
|	Cr	52	Cr	**10.004**	ug/L	0.8	7778.784	97633.6	0.7
|	Mn	55	Mn	**83.042**	ug/L	2.6	7127.334	1220274.8	1.2
|	Co	59	Co	**3.130**	ug/L	0.9	248.891	33038.2	1.1
|	Ni	60	Ni	**5.344**	ug/L	1.2	2962.529	15344.9	2.0
|	Cu	65	Cu	**35.163**	ug/L	0.7	193.335	89084.7	1.0
|	Zn	68	Zn	**10.093**	ug/L	4.3	882.424	14359.1	3.3
|	As	75	As	**460.387**	ug/L	2.3	5662.027	1012720.9	2.2
|	Se	82	Se	**1.374**	ug/L	3.9	136.669	430.6	3.8
⌊>	Ge	74	Ge		ug/L		1671827.061	1862127.5	1.4
⌈	Sr	88	Sr	**3.448**	ug/L	0.7	337.141	78071.3	1.0
|	Mo	95	Mo	**5.254**	ug/L	2.0	25.556	19419.9	2.1
|	Ag	107	Ag	**0.456**	ug/L	5.2	61.111	4397.3	5.6
|	Cd	114	Cd	**0.175**	ug/L	6.5	126.896	1086.1	5.6
|	Sn	118	Sn	**1.560**	ug/L	2.3	240.002	10708.5	2.7
|	Sb	121	Sb	**2.614**	ug/L	3.4	105.556	23043.0	3.8
|	Ba	137	Ba	**15.479**	ug/L	0.9	91.111	54850.7	0.4
⌊>	Rh	103	Rh		ug/L		1646429.824	1750934.7	0.6
⌈	Tl	203	Tl	**0.112**	ug/L	9.2	142.223	1041.1	9.7
|	Pb	208	Pb	**26.824**	ug/L	1.2	2983.459	698098.1	1.1
|	U	238	U	**0.351**	ug/L	2.1	35.556	10272.6	2.5
| >	Lu	175	Lu		ug/L		1529228.797	1604888.8	2.3
⌊	Hg	200	Hg	**0.161**	ug/L	8.8	23.333	318.9	7.3

Sample ID: 580-28720-a-6-b

Sample Date/Time: Friday, September 23, 2011 12:46:12
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-6-b .037

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		119.898
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		114.182
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		111.383
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		106.347
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		104.948
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-7-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:50:20
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-7-b .038

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.182**	ug/L	28.2	3.333	114.4	27.5
⌊>	Li	6	Li		ug/L		154080.983	191875.5	0.5
⌈	Al	27	Al	**12941.031**	ug/L	2.6	8047.857	62807345.3	2.6
|	Na	23	Na	**81.305**	ug/L	21.8	94055.323	574031.8	17.5
|	Mg	24	Mg	**1462.752**	ug/L	0.7	1852.343	5267952.9	0.8
|	P	31	P	**366.449**	ug/L	1.6	4870.837	133927.2	1.7
|	K	39	K	**230.751**	ug/L	1.9	605845.902	2734446.9	1.5
|	Ca	44	Ca	**220.347**	ug/L	1.9	26271.930	94268.9	1.2
⌊>	Sc	45	Sc		ug/L		1611311.536	1861822.5	0.2
⌈	Fe	54	Fe	**20906.696**	ug/L	2.3	24475.102	14873142.0	1.9
|	Ti	47	Ti	**752.041**	ug/L	1.2	708.906	736742.3	1.4
|	V	51	V	**38.280**	ug/L	1.5	2027.133	413387.0	1.1
|	Cr	52	Cr	**9.700**	ug/L	3.4	7778.784	96586.7	2.9
|	Mn	55	Mn	**125.116**	ug/L	1.5	7127.334	1866879.6	1.4
|	Co	59	Co	**4.114**	ug/L	1.6	248.891	44089.0	1.1
|	Ni	60	Ni	**5.660**	ug/L	0.6	2962.529	16336.0	1.1
|	Cu	65	Cu	**43.123**	ug/L	3.2	193.335	111096.1	2.6
|	Zn	68	Zn	**15.095**	ug/L	2.1	882.424	21358.9	1.7
|	As	75	As	**36.096**	ug/L	0.7	5662.027	86705.0	1.1
|	Se	82	Se	**0.953**	ug/L	19.0	136.669	351.1	10.2
⌊>	Ge	74	Ge		ug/L		1671827.061	1894551.6	0.6
⌈	Sr	88	Sr	**3.220**	ug/L	3.2	337.141	75535.3	2.1
|	Mo	95	Mo	**1.832**	ug/L	2.9	25.556	7030.6	2.7
|	Ag	107	Ag	**0.542**	ug/L	1.7	61.111	5403.2	2.7
|	Cd	114	Cd	**0.286**	ug/L	14.4	126.896	1748.2	13.2
|	Sn	118	Sn	**42.272**	ug/L	1.5	240.002	293643.4	1.7
|	Sb	121	Sb	**1.593**	ug/L	1.6	105.556	14593.0	1.5
|	Ba	137	Ba	**16.345**	ug/L	1.8	91.111	59972.3	1.0
⌊>	Rh	103	Rh		ug/L		1646429.824	1813393.5	1.1
⌈	Tl	203	Tl	**0.076**	ug/L	10.0	142.223	761.1	6.8
|	Pb	208	Pb	**87.617**	ug/L	1.2	2983.459	2317263.9	0.5
|	U	238	U	**0.399**	ug/L	2.0	35.556	11888.3	1.3
|>	Lu	175	Lu		ug/L		1529228.797	1635863.4	1.3
⌊	Hg	200	Hg	**0.296**	ug/L	5.0	23.333	578.9	5.8

Sample ID: 580-28720-a-7-b

Sample Date/Time: Friday, September 23, 2011 12:50:20
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-7-b .038

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		124.529
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		115.547
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		113.322
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		110.141
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		106.973
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-9-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:57:37
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-9-b .040

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.145**	ug/L	15.0	3.333	91.1	12.8
⌊>	Li	6	Li		ug/L		154080.983	190521.1	1.6
⌈	Al	27	Al	**13938.861**	ug/L	2.4	8047.857	65342899.1	3.1
|	Na	23	Na	**47.054**	ug/L	15.8	94055.323	364866.0	10.5
|	Mg	24	Mg	**147.498**	ug/L	1.2	1852.343	514948.2	2.5
|	P	31	P	**480.017**	ug/L	4.6	4870.837	167743.7	4.5
|	K	39	K	**104.298**	ug/L	5.7	605845.902	1564441.8	4.1
|	Ca	44	Ca	**200.376**	ug/L	1.5	26271.930	85462.8	2.5
⌊>	Sc	45	Sc		ug/L		1611311.536	1798221.5	1.6
⌈	Fe	54	Fe	**11343.387**	ug/L	2.9	24475.102	7795305.9	1.2
|	Ti	47	Ti	**326.764**	ug/L	1.9	708.906	309228.2	1.7
|	V	51	V	**10.550**	ug/L	3.0	2027.133	111483.6	1.2
|	Cr	52	Cr	**3.981**	ug/L	0.5	7778.784	43264.3	2.4
|	Mn	55	Mn	**14.708**	ug/L	0.9	7127.334	218634.5	2.8
|	Co	59	Co	**0.771**	ug/L	1.6	248.891	8193.5	1.2
|	Ni	60	Ni	**2.732**	ug/L	7.0	2962.529	9277.5	2.6
|	Cu	65	Cu	**15.553**	ug/L	1.3	193.335	38796.0	2.4
|	Zn	68	Zn	**1.104**	ug/L	12.1	882.424	2400.4	6.0
|	As	75	As	**6.474**	ug/L	3.3	5662.027	20088.3	4.1
|	Se	82	Se	**0.908**	ug/L	15.5	136.669	329.5	6.6
⌊>	Ge	74	Ge		ug/L		1671827.061	1827788.7	2.0
⌈	Sr	88	Sr	**2.957**	ug/L	0.3	337.141	65057.5	1.9
|	Mo	95	Mo	**0.797**	ug/L	2.9	25.556	2882.5	3.5
|	Ag	107	Ag	**0.785**	ug/L	3.0	61.111	7301.9	1.7
|	Cd	114	Cd	**0.201**	ug/L	7.7	126.896	1193.7	7.8
|	Sn	118	Sn	**0.851**	ug/L	2.1	240.002	5785.6	2.2
|	Sb	121	Sb	**0.316**	ug/L	3.1	105.556	2801.4	3.8
|	Ba	137	Ba	**7.346**	ug/L	3.1	91.111	25315.8	2.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1699991.8	1.6
⌈	Tl	203	Tl	**0.052**	ug/L	2.5	142.223	546.7	2.8
|	Pb	208	Pb	**5.756**	ug/L	1.4	2983.459	149131.9	0.6
|	U	238	U	**0.433**	ug/L	1.3	35.556	12383.1	1.2
| >	Lu	175	Lu		ug/L		1529228.797	1571690.8	1.1
⌊	Hg	200	Hg	**0.128**	ug/L	10.4	23.333	254.4	8.9

Sample ID: 580-28720-a-9-b

Sample Date/Time: Friday, September 23, 2011 12:57:37
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-9-b .040

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		123.650
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		111.600
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		109.329
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		103.253
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.777
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-8-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 12:54:28
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-8-b .039

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.345**	ug/L	22.1	3.333	210.0	22.4
⌊>	Li	6	Li		ug/L		154080.983	188287.4	1.7
⌈	Al	27	Al	**44796.119**	ug/L	3.5	8047.857	218556621.8	2.7
|	Na	23	Na	**50.481**	ug/L	2.6	94055.323	399891.4	2.2
|	Mg	24	Mg	**4575.917**	ug/L	3.9	1852.343	16559427.6	1.6
|	P	31	P	**699.979**	ug/L	0.7	4870.837	252136.5	2.5
|	K	39	K	**516.736**	ug/L	6.0	605845.902	5282444.8	3.4
|	Ca	44	Ca	**380.087**	ug/L	2.1	26271.930	141380.7	1.3
⌊>	Sc	45	Sc		ug/L		1611311.536	1872709.6	3.0
⌈	Fe	54	Fe	**41671.709**	ug/L	1.7	24475.102	28620249.1	0.9
|	Ti	47	Ti	**1120.376**	ug/L	1.2	708.906	1060204.1	0.5
|	V	51	V	**73.268**	ug/L	2.2	2027.133	762512.1	1.5
|	Cr	52	Cr	**24.222**	ug/L	1.0	7778.784	220322.7	0.9
|	Mn	55	Mn	**207.662**	ug/L	3.9	7127.334	2988529.1	3.0
|	Co	59	Co	**5.683**	ug/L	2.5	248.891	58741.7	1.6
|	Ni	60	Ni	**12.562**	ug/L	2.5	2962.529	31073.8	1.4
|	Cu	65	Cu	**57.149**	ug/L	3.0	193.335	142204.5	2.4
|	Zn	68	Zn	**40.560**	ug/L	1.7	882.424	53827.9	1.3
|	As	75	As	**144.614**	ug/L	0.9	5662.027	317021.3	0.3
|	Se	82	Se	**1.353**	ug/L	9.8	136.669	418.9	5.4
⌊>	Ge	74	Ge		ug/L		1671827.061	1830797.0	0.9
⌈	Sr	88	Sr	**5.450**	ug/L	1.5	337.141	119210.1	1.4
|	Mo	95	Mo	**2.501**	ug/L	2.2	25.556	8958.4	1.9
|	Ag	107	Ag	**0.957**	ug/L	1.0	61.111	8867.2	0.6
|	Cd	114	Cd	**0.359**	ug/L	5.8	126.896	2016.4	4.9
|	Sn	118	Sn	**1.517**	ug/L	1.1	240.002	10082.4	0.3
|	Sb	121	Sb	**3.276**	ug/L	1.3	105.556	27916.1	2.1
|	Ba	137	Ba	**38.814**	ug/L	2.0	91.111	132932.4	1.4
⌊>	Rh	103	Rh		ug/L		1646429.824	1694213.5	0.8
⌈	Tl	203	Tl	**0.124**	ug/L	4.8	142.223	1107.8	4.2
|	Pb	208	Pb	**34.763**	ug/L	1.3	2983.459	886351.8	0.8
|	U	238	U	**0.619**	ug/L	1.6	35.556	17731.0	2.0
| >	Lu	175	Lu		ug/L		1529228.797	1573719.2	0.7
⌊	Hg	200	Hg	**0.268**	ug/L	12.4	23.333	505.6	11.3

Sample ID: 580-28720-a-8-b

Sample Date/Time: Friday, September 23, 2011 12:54:28
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-8-b .039

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		122.200
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		116.223
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		109.509
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		102.902
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.909
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-10-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 13:00:47
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-10-b .041

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.090**	ug/L	11.6	3.333	64.4	11.9
⌊>	Li	6	Li		ug/L		154080.983	209261.9	2.0
⌈	Al	27	Al	**20272.491**	ug/L	5.8	8047.857	111178011.7	3.0
|	Na	23	Na	**90.833**	ug/L	13.3	94055.323	711529.3	12.3
|	Mg	24	Mg	**10040.388**	ug/L	4.1	1852.343	40886642.9	4.6
|	P	31	P	**262.686**	ug/L	3.8	4870.837	110443.9	5.5
|	K	39	K	**2763.639**	ug/L	8.1	605845.902	28295129.0	2.3
|	Ca	44	Ca	**345.516**	ug/L	5.1	26271.930	147710.8	4.7
⌊>	Sc	45	Sc		ug/L		1611311.536	2110776.5	8.4
⌈	Fe	54	Fe	**31207.541**	ug/L	6.1	24475.102	25367466.0	2.4
|	Ti	47	Ti	**1577.942**	ug/L	5.4	708.906	1766669.7	2.1
|	V	51	V	**51.553**	ug/L	6.8	2027.133	635322.6	0.8
|	Cr	52	Cr	**15.089**	ug/L	5.7	7778.784	166233.1	2.5
|	Mn	55	Mn	**370.710**	ug/L	7.1	7127.334	6302154.8	0.6
|	Co	59	Co	**3.094**	ug/L	6.1	248.891	37980.4	1.5
|	Ni	60	Ni	**13.281**	ug/L	7.7	2962.529	38634.4	1.4
|	Cu	65	Cu	**19.398**	ug/L	5.7	193.335	57289.1	2.6
|	Zn	68	Zn	**48.238**	ug/L	3.9	882.424	75620.3	4.6
|	As	75	As	**9.968**	ug/L	8.8	5662.027	32674.0	2.5
|	Se	82	Se	**0.560**	ug/L	22.4	136.669	308.3	2.2
⌊>	Ge	74	Ge		ug/L		1671827.061	2172123.4	7.3
⌈	Sr	88	Sr	**3.412**	ug/L	1.5	337.141	83493.9	3.9
|	Mo	95	Mo	**0.784**	ug/L	2.9	25.556	3155.9	3.5
|	Ag	107	Ag	**0.778**	ug/L	1.2	61.111	8058.9	2.0
|	Cd	114	Cd	**0.243**	ug/L	2.6	126.896	1573.2	1.4
|	Sn	118	Sn	**1.765**	ug/L	0.5	240.002	13058.2	3.6
|	Sb	121	Sb	**0.370**	ug/L	2.5	105.556	3623.8	3.8
|	Ba	137	Ba	**60.566**	ug/L	2.7	91.111	231452.6	2.0
⌊>	Rh	103	Rh		ug/L		1646429.824	1891602.7	3.2
⌈	Tl	203	Tl	**0.162**	ug/L	4.5	142.223	1526.7	2.2
|	Pb	208	Pb	**19.832**	ug/L	1.0	2983.459	552960.7	1.7
|	U	238	U	**0.429**	ug/L	2.0	35.556	13408.5	2.1
| >	Lu	175	Lu		ug/L		1529228.797	1716454.7	2.0
⌊	Hg	200	Hg	**0.141**	ug/L	14.9	23.333	302.2	11.7

Sample ID: 580-28720-a-10-b

Sample Date/Time: Friday, September 23, 2011 13:00:47
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-10-b .041

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		135.813
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		130.997
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		129.925
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		114.891
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		112.243
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-12-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 13:07:08
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-12-b .043

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.188**	ug/L	16.3	3.333	113.3	13.5
⌊>	Li	6	Li		ug/L		154080.983	184035.3	3.2
⌈	Al	27	Al	**18581.374**	ug/L	3.8	8047.857	83776742.3	1.5
|	Na	23	Na	**137.352**	ug/L	6.2	94055.323	832413.7	7.2
|	Mg	24	Mg	**9520.335**	ug/L	3.3	1852.343	31843844.2	1.2
|	P	31	P	**959.136**	ug/L	2.5	4870.837	317259.8	0.4
|	K	39	K	**644.283**	ug/L	2.0	605845.902	5929759.9	1.9
|	Ca	44	Ca	**1211.994**	ug/L	1.3	26271.930	354947.2	1.5
⌊>	Sc	45	Sc		ug/L		1611311.536	1730677.0	2.4
⌈	Fe	54	Fe	**51193.633**	ug/L	0.9	24475.102	34706498.3	0.7
|	Ti	47	Ti	**143.372**	ug/L	8.5	708.906	134706.0	9.7
|	V	51	V	**64.880**	ug/L	2.8	2027.133	666780.4	1.5
|	Cr	52	Cr	**35.863**	ug/L	1.4	7778.784	318049.6	2.5
|	Mn	55	Mn	**1635.792**	ug/L	0.5	7127.334	23192388.7	0.9
|	Co	59	Co	**21.011**	ug/L	1.0	248.891	213702.2	1.0
|	Ni	60	Ni	**22.849**	ug/L	1.0	2962.529	53179.9	0.3
|	Cu	65	Cu	**29.269**	ug/L	2.2	193.335	72024.6	3.4
|	Zn	68	Zn	**135.722**	ug/L	2.9	882.424	175553.3	1.7
|	As	75	As	**742.577**	ug/L	2.2	5662.027	1581646.6	1.5
|	Se	82	Se	**0.325**	ug/L	5.6	136.669	211.7	2.8
⌊>	Ge	74	Ge		ug/L		1671827.061	1807442.8	1.3
⌈	Sr	88	Sr	**5.816**	ug/L	1.1	337.141	128406.4	1.2
|	Mo	95	Mo	**1.066**	ug/L	1.7	25.556	3868.3	1.7
|	Ag	107	Ag	**6.035**	ug/L	0.6	61.111	56089.9	0.7
|	Cd	114	Cd	**0.388**	ug/L	1.3	126.896	2189.6	1.0
|	Sn	118	Sn	**0.522**	ug/L	2.3	240.002	3666.0	2.3
|	Sb	121	Sb	**79.587**	ug/L	0.7	105.556	682058.5	0.6
|	Ba	137	Ba	**25.674**	ug/L	0.7	91.111	88800.7	0.9
⌊>	Rh	103	Rh		ug/L		1646429.824	1710192.2	0.2
⌈	Tl	203	Tl	**0.325**	ug/L	3.5	142.223	2620.2	2.9
|	Pb	208	Pb	**357.575**	ug/L	1.4	2983.459	8924032.7	0.8
|	U	238	U	**0.289**	ug/L	0.2	35.556	8160.1	0.7
| >	Lu	175	Lu		ug/L		1529228.797	1545207.8	0.6
⌊	Hg	200	Hg	**1.337**	ug/L	3.9	23.333	2383.5	3.8

Sample ID: 580-28720-a-12-b

Sample Date/Time: Friday, September 23, 2011 13:07:08
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-12-b .043

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		119.441
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		107.408
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		108.112
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		103.873
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.045
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-13-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 13:10:19
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-13-b .044

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.354**	ug/L	7.1	3.333	205.6	4.1
⌊>	Li	6	Li		ug/L		154080.983	180312.0	4.0
⌈	Al	27	Al	**38297.160**	ug/L	2.2	8047.857	176475071.8	1.8
|	Na	23	Na	**61.491**	ug/L	8.0	94055.323	437625.5	6.9
|	Mg	24	Mg	**3920.933**	ug/L	1.2	1852.343	13406049.2	1.5
|	P	31	P	**205.003**	ug/L	4.3	4870.837	73517.9	4.8
|	K	39	K	**431.773**	ug/L	1.6	605845.902	4279526.8	1.2
|	Ca	44	Ca	**235.070**	ug/L	1.1	26271.930	93578.9	1.4
⌊>	Sc	45	Sc		ug/L		1611311.536	1768029.0	0.8
⌈	Fe	54	Fe	**61770.832**	ug/L	2.0	24475.102	40952036.9	3.1
|	Ti	47	Ti	**2136.817**	ug/L	1.6	708.906	1951248.9	1.0
|	V	51	V	**145.878**	ug/L	2.3	2027.133	1463320.2	0.9
|	Cr	52	Cr	**21.865**	ug/L	1.0	7778.784	192798.0	1.6
|	Mn	55	Mn	**166.012**	ug/L	0.5	7127.334	2308419.6	1.5
|	Co	59	Co	**5.071**	ug/L	2.4	248.891	50629.6	1.1
|	Ni	60	Ni	**10.705**	ug/L	4.3	2962.529	26021.5	2.5
|	Cu	65	Cu	**24.226**	ug/L	1.8	193.335	58311.0	0.3
|	Zn	68	Zn	**0.844**	ug/L	85.2	882.424	2004.6	47.0
|	As	75	As	**89.151**	ug/L	1.5	5662.027	190945.7	0.3
|	Se	82	Se	**0.662**	ug/L	8.7	136.669	271.7	4.3
⌊>	Ge	74	Ge		ug/L		1671827.061	1767428.8	1.6
⌈	Sr	88	Sr	**5.439**	ug/L	0.7	337.141	116648.7	2.0
|	Mo	95	Mo	**1.663**	ug/L	0.8	25.556	5847.9	1.6
|	Ag	107	Ag	**0.662**	ug/L	6.4	61.111	6023.5	5.0
|	Cd	114	Cd	**0.085**	ug/L	19.1	126.896	563.4	13.7
|	Sn	118	Sn	**1.539**	ug/L	1.9	240.002	10020.2	0.7
|	Sb	121	Sb	**3.880**	ug/L	1.4	105.556	32388.9	1.5
|	Ba	137	Ba	**33.963**	ug/L	1.9	91.111	114025.5	0.5
⌊>	Rh	103	Rh		ug/L		1646429.824	1660817.4	1.5
⌈	Tl	203	Tl	**0.077**	ug/L	8.3	142.223	717.8	6.9
|	Pb	208	Pb	**26.689**	ug/L	0.5	2983.459	659682.0	0.5
|	U	238	U	**0.510**	ug/L	1.9	35.556	14158.1	1.6
| >	Lu	175	Lu		ug/L		1529228.797	1523908.5	0.3
⌊	Hg	200	Hg	**0.167**	ug/L	20.7	23.333	313.3	19.4

Sample ID: 580-28720-a-13-b

Sample Date/Time: Friday, September 23, 2011 13:10:19
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-13-b .044

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		117.024
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		109.726
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		105.718
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.874
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		99.652
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-14-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 13:13:26
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-14-b .045

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.395**	ug/L	2.8	3.333	242.2	2.9
⌊>	Li	6	Li		ug/L		154080.983	190300.2	0.1
⌈	Al	27	Al	**18195.418**	ug/L	0.4	8047.857	84100235.0	1.6
|	Na	23	Na	**164.570**	ug/L	0.8	94055.323	1000729.1	1.4
|	Mg	24	Mg	**8597.096**	ug/L	1.7	1852.343	29471953.3	0.1
|	P	31	P	**932.911**	ug/L	1.6	4870.837	316381.8	0.6
|	K	39	K	**694.642**	ug/L	4.8	605845.902	6496459.6	2.9
|	Ca	44	Ca	**2959.937**	ug/L	0.8	26271.930	846625.0	2.1
⌊>	Sc	45	Sc		ug/L		1611311.536	1773228.3	1.8
⌈	Fe	54	Fe	**47842.787**	ug/L	1.7	24475.102	33024528.6	1.9
|	Ti	47	Ti	**110.248**	ug/L	5.6	708.906	105530.0	4.6
|	V	51	V	**56.855**	ug/L	2.7	2027.133	595148.0	1.3
|	Cr	52	Cr	**29.744**	ug/L	3.9	7778.784	269902.3	2.5
|	Mn	55	Mn	**2355.412**	ug/L	0.6	7127.334	33996452.8	1.1
|	Co	59	Co	**20.448**	ug/L	2.9	248.891	211717.8	2.2
|	Ni	60	Ni	**22.120**	ug/L	2.4	2962.529	52519.7	2.0
|	Cu	65	Cu	**54.432**	ug/L	3.1	193.335	136127.9	1.7
|	Zn	68	Zn	**395.819**	ug/L	0.7	882.424	519482.9	0.7
|	As	75	As	**767.462**	ug/L	0.7	5662.027	1664246.1	1.4
|	Se	82	Se	**0.301**	ug/L	15.5	136.669	210.6	3.2
⌊>	Ge	74	Ge		ug/L		1671827.061	1840164.4	1.4
⌈	Sr	88	Sr	**21.442**	ug/L	1.3	337.141	480713.9	0.8
|	Mo	95	Mo	**1.633**	ug/L	2.6	25.556	6020.2	3.8
|	Ag	107	Ag	**2.714**	ug/L	1.5	61.111	25704.2	0.7
|	Cd	114	Cd	**2.148**	ug/L	2.6	126.896	11733.3	3.5
|	Sn	118	Sn	**0.375**	ug/L	5.4	240.002	2751.4	5.4
|	Sb	121	Sb	**82.731**	ug/L	1.4	105.556	721417.5	1.2
|	Ba	137	Ba	**54.096**	ug/L	1.7	91.111	190263.1	0.8
⌊>	Rh	103	Rh		ug/L		1646429.824	1740292.0	1.3
⌈	Tl	203	Tl	**0.385**	ug/L	4.0	142.223	3145.9	4.4
|	Pb	208	Pb	**318.783**	ug/L	0.2	2983.459	8127665.6	0.7
|	U	238	U	**0.331**	ug/L	2.3	35.556	9529.8	3.0
| >	Lu	175	Lu		ug/L		1529228.797	1578438.6	0.9
⌊	Hg	200	Hg	**0.802**	ug/L	3.8	23.333	1471.2	4.6

Sample ID: 580-28720-a-14-b

Sample Date/Time: Friday, September 23, 2011 13:13:26
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-14-b .045

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		123.507
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		110.049
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		110.069
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		105.701
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		103.218
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-15-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 13:16:30
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-15-b .046

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.095**	ug/L	13.6	3.333	63.3	13.9
⌊>	Li	6	Li		ug/L		154080.983	196717.5	1.2
⌈	Al	27	Al	**8744.276**	ug/L	2.6	8047.857	42030472.2	3.0
|	Na	23	Na	**123.348**	ug/L	6.4	94055.323	806998.1	6.1
|	Mg	24	Mg	**334.211**	ug/L	0.3	1852.343	1193520.4	0.9
|	P	31	P	**245.312**	ug/L	2.0	4870.837	90628.9	2.5
|	K	39	K	**135.230**	ug/L	18.6	605845.902	1872872.6	11.1
|	Ca	44	Ca	**246.532**	ug/L	5.5	26271.930	100876.4	4.1
⌊>	Sc	45	Sc		ug/L		1611311.536	1843658.3	0.7
⌈	Fe	54	Fe	**9152.668**	ug/L	0.1	24475.102	6613704.9	0.9
|	Ti	47	Ti	**463.751**	ug/L	1.1	708.906	460634.8	1.2
|	V	51	V	**28.886**	ug/L	3.1	2027.133	316586.9	2.1
|	Cr	52	Cr	**4.403**	ug/L	1.5	7778.784	49302.7	1.3
|	Mn	55	Mn	**77.669**	ug/L	3.0	7127.334	1177586.8	3.8
|	Co	59	Co	**2.076**	ug/L	0.6	248.891	22684.7	1.5
|	Ni	60	Ni	**1.747**	ug/L	7.0	2962.529	7460.8	4.0
|	Cu	65	Cu	**10.870**	ug/L	2.9	193.335	28549.6	3.9
|	Zn	68	Zn	**15.846**	ug/L	2.2	882.424	22671.7	3.1
|	As	75	As	**19.939**	ug/L	2.2	5662.027	51445.0	2.9
|	Se	82	Se	**0.079**	ug/L	59.2	136.669	173.3	5.1
⌊>	Ge	74	Ge		ug/L		1671827.061	1919654.2	1.0
⌈	Sr	88	Sr	**3.562**	ug/L	1.8	337.141	84119.1	0.9
|	Mo	95	Mo	**0.610**	ug/L	4.5	25.556	2378.0	3.2
|	Ag	107	Ag	**0.553**	ug/L	3.0	61.111	5546.6	3.2
|	Cd	114	Cd	**0.189**	ug/L	3.2	126.896	1211.7	4.1
|	Sn	118	Sn	**0.575**	ug/L	2.6	240.002	4288.4	3.1
|	Sb	121	Sb	**2.301**	ug/L	1.2	105.556	21174.6	2.1
|	Ba	137	Ba	**10.244**	ug/L	3.1	91.111	37898.0	2.8
⌊>	Rh	103	Rh		ug/L		1646429.824	1826637.0	1.3
⌈	Tl	203	Tl	**0.041**	ug/L	9.7	142.223	490.0	6.0
|	Pb	208	Pb	**11.043**	ug/L	1.2	2983.459	300670.8	0.6
|	U	238	U	**0.227**	ug/L	6.2	35.556	6902.8	5.9
| >	Lu	175	Lu		ug/L		1529228.797	1668021.2	0.8
⌊	Hg	200	Hg	**0.092**	ug/L	21.2	23.333	200.0	18.8

Sample ID: 580-28720-a-15-b

Sample Date/Time: Friday, September 23, 2011 13:16:30
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-15-b .046

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		127.672
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		114.420
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		114.824
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		110.945
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		109.076
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-11-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 13:03:57
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-11-b .042

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.100**	ug/L	33.2	3.333	62.2	29.5
⌊>	Li	6	Li		ug/L		154080.983	184290.7	3.1
⌈	Al	27	Al	**11607.220**	ug/L	2.2	8047.857	53469277.6	1.2
|	Na	23	Na	**66.519**	ug/L	18.9	94055.323	465019.5	15.7
|	Mg	24	Mg	**1438.511**	ug/L	0.8	1852.343	4917888.3	1.4
|	P	31	P	**396.337**	ug/L	5.0	4870.837	137028.1	4.1
|	K	39	K	**488.361**	ug/L	1.1	605845.902	4752332.6	2.5
|	Ca	44	Ca	**695.274**	ug/L	1.4	26271.930	220304.5	3.0
⌊>	Sc	45	Sc		ug/L		1611311.536	1767515.3	1.9
⌈	Fe	54	Fe	**23598.765**	ug/L	5.2	24475.102	16188643.0	2.8
|	Ti	47	Ti	**1006.844**	ug/L	1.7	708.906	951554.6	1.0
|	V	51	V	**52.434**	ug/L	2.4	2027.133	545548.4	0.8
|	Cr	52	Cr	**10.633**	ug/L	4.5	7778.784	101324.8	2.2
|	Mn	55	Mn	**113.521**	ug/L	3.7	7127.334	1634741.2	1.1
|	Co	59	Co	**2.687**	ug/L	5.7	248.891	27878.3	4.8
|	Ni	60	Ni	**6.163**	ug/L	5.8	2962.529	16868.8	2.4
|	Cu	65	Cu	**17.566**	ug/L	2.8	193.335	43807.1	3.1
|	Zn	68	Zn	**28.838**	ug/L	2.6	882.424	38509.8	3.7
|	As	75	As	**85.511**	ug/L	2.6	5662.027	189740.2	2.4
|	Se	82	Se	**0.537**	ug/L	19.6	136.669	256.1	7.7
⌊>	Ge	74	Ge		ug/L		1671827.061	1828745.3	2.6
⌈	Sr	88	Sr	**6.449**	ug/L	0.9	337.141	143589.0	0.5
|	Mo	95	Mo	**0.938**	ug/L	2.5	25.556	3438.2	3.1
|	Ag	107	Ag	**0.479**	ug/L	2.0	61.111	4548.5	1.4
|	Cd	114	Cd	**0.176**	ug/L	7.4	126.896	1075.8	6.1
|	Sn	118	Sn	**1.190**	ug/L	1.3	240.002	8112.3	2.3
|	Sb	121	Sb	**1.931**	ug/L	0.8	105.556	16805.4	0.4
|	Ba	137	Ba	**25.120**	ug/L	0.5	91.111	87651.4	1.5
⌊>	Rh	103	Rh		ug/L		1646429.824	1725218.6	1.0
⌈	Tl	203	Tl	**0.065**	ug/L	8.1	142.223	650.0	6.7
|	Pb	208	Pb	**25.100**	ug/L	0.2	2983.459	639437.4	1.4
|	U	238	U	**0.306**	ug/L	3.3	35.556	8778.3	3.9
| >	Lu	175	Lu		ug/L		1529228.797	1570239.1	1.5
⌊	Hg	200	Hg	**0.244**	ug/L	7.7	23.333	461.1	6.1

Sample ID: 580-28720-a-11-b

Sample Date/Time: Friday, September 23, 2011 13:03:57
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-11-b .042

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		119.606
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		109.694
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		109.386
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		104.785
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
| >	Lu	175	Lu		102.682
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Friday, September 23, 2011 13:19:38
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.047

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**49.189**	ug/L	1.1	3.333	25944.7	1.1
⌊>	Li	6	Li		ug/L		154080.983	166686.9	1.2
⌈	Al	27	Al	**504.318**	ug/L	2.7	8047.857	2085533.2	3.7
|	Na	23	Na	**4986.282**	ug/L	1.7	94055.323	24321095.8	1.8
|	Mg	24	Mg	**5115.986**	ug/L	1.7	1852.343	15632649.9	0.6
|	P	31	P	**4902.950**	ug/L	1.1	4870.837	1461777.7	1.1
|	K	39	K	**5106.814**	ug/L	2.5	605845.902	38802821.9	0.9
|	Ca	44	Ca	**5001.498**	ug/L	2.7	26271.930	1256851.1	0.6
⌊>	Sc	45	Sc		ug/L		1611311.536	1580527.9	2.2
⌈	Fe	54	Fe	**4961.199**	ug/L	1.7	24475.102	3164451.7	1.1
|	Ti	47	Ti	**47.634**	ug/L	3.7	708.906	42267.0	4.2
|	V	51	V	**50.106**	ug/L	1.7	2027.133	481627.5	1.5
|	Cr	52	Cr	**50.837**	ug/L	3.2	7778.784	417787.4	2.2
|	Mn	55	Mn	**49.684**	ug/L	0.5	7127.334	665083.2	0.6
|	Co	59	Co	**49.977**	ug/L	3.2	248.891	474513.7	2.8
|	Ni	60	Ni	**48.120**	ug/L	4.3	2962.529	101330.8	4.2
|	Cu	65	Cu	**49.660**	ug/L	3.3	193.335	114006.8	3.2
|	Zn	68	Zn	**49.192**	ug/L	2.4	882.424	60034.7	3.4
|	As	75	As	**49.725**	ug/L	4.0	5662.027	104274.5	3.0
|	Se	82	Se	**49.286**	ug/L	2.8	136.669	9186.4	1.9
⌊>	Ge	74	Ge		ug/L		1671827.061	1688562.8	1.0
⌈	Sr	88	Sr	**49.399**	ug/L	1.9	337.141	1040524.6	1.5
|	Mo	95	Mo	**49.929**	ug/L	2.7	25.556	172170.4	2.0
|	Ag	107	Ag	**50.409**	ug/L	1.2	61.111	447666.1	0.5
|	Cd	114	Cd	**50.296**	ug/L	0.7	126.896	255324.1	0.3
|	Sn	118	Sn	**50.072**	ug/L	1.2	240.002	313684.4	0.5
|	Sb	121	Sb	**50.040**	ug/L	1.2	105.556	410182.1	0.5
|	Ba	137	Ba	**49.683**	ug/L	1.4	91.111	164261.2	0.8
⌊>	Rh	103	Rh		ug/L		1646429.824	1635729.6	0.8
⌈	Tl	203	Tl	**50.455**	ug/L	1.0	142.223	377772.1	0.7
|	Pb	208	Pb	**50.742**	ug/L	0.2	2983.459	1245684.7	0.3
|	U	238	U	**47.938**	ug/L	0.7	35.556	1320718.3	0.9
| >	Lu	175	Lu		ug/L		1529228.797	1516796.9	0.3
⌊	Hg	200	Hg	**2.445**	ug/L	1.3	23.333	4258.4	1.1

Sample ID: QC Std 3

Sample Date/Time: Friday, September 23, 2011 13:19:38
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.047

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	98.378	
⌊>	Li	6	Li		108.181
⌈	Al	27	Al	100.864	
|	Na	23	Na	99.726	
|	Mg	24	Mg	102.320	
|	P	31	P	98.059	
|	K	39	K	102.136	
|	Ca	44	Ca	100.030	
⌊>	Sc	45	Sc		98.090
⌈	Fe	54	Fe	99.224	
|	Ti	47	Ti	95.267	
|	V	51	V	100.213	
|	Cr	52	Cr	101.674	
|	Mn	55	Mn	99.369	
|	Co	59	Co	99.954	
|	Ni	60	Ni	96.241	
|	Cu	65	Cu	99.321	
|	Zn	68	Zn	98.383	
|	As	75	As	99.451	
|	Se	82	Se	98.572	
⌊>	Ge	74	Ge		101.001
⌈	Sr	88	Sr	98.799	
|	Mo	95	Mo	99.857	
|	Ag	107	Ag	100.818	
|	Cd	114	Cd	100.591	
|	Sn	118	Sn	100.143	
|	Sb	121	Sb	100.080	
|	Ba	137	Ba	99.366	
⌊>	Rh	103	Rh		99.350
⌈	Tl	203	Tl	100.909	
|	Pb	208	Pb	101.484	
|	U	238	U	95.876	
|>	Lu	175	Lu		99.187
⌊	Hg	200	Hg	97.787	

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Friday, September 23, 2011 13:22:49
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.048

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.015**	ug/L	69.4	3.333	11.1	45.8
⌊>	Li	6	Li		ug/L		154080.983	162004.7	1.7
⌈	Al	27	Al	**0.245**	ug/L	128.0	8047.857	8787.2	12.5
|	Na	23	Na	**-11.299**	ug/L	2.2	94055.323	36918.8	2.2
|	Mg	24	Mg	**0.036**	ug/L	380.5	1852.343	1901.2	20.0
|	P	31	P	**2.587**	ug/L	42.5	4870.837	5487.7	7.5
|	K	39	K	**-0.625**	ug/L	229.4	605845.902	582874.9	0.8
|	Ca	44	Ca	**-25.415**	ug/L	11.8	26271.930	19284.1	1.8
⌊>	Sc	45	Sc		ug/L		1611311.536	1562921.8	2.3
⌈	Fe	54	Fe	**5.726**	ug/L	22.2	24475.102	27496.7	2.7
|	Ti	47	Ti	**-0.201**	ug/L	42.0	708.906	524.5	14.3
|	V	51	V	**-0.109**	ug/L	250.9	2027.133	965.9	263.4
|	Cr	52	Cr	**0.068**	ug/L	30.8	7778.784	8156.8	2.2
|	Mn	55	Mn	**-0.199**	ug/L	6.2	7127.334	4432.9	4.4
|	Co	59	Co	**-0.004**	ug/L	61.8	248.891	211.1	9.6
|	Ni	60	Ni	**-0.807**	ug/L	5.4	2962.529	1303.4	5.8
|	Cu	65	Cu	**-0.043**	ug/L	23.0	193.335	94.4	22.7
|	Zn	68	Zn	**-0.083**	ug/L	69.6	882.424	768.7	9.6
|	As	75	As	**0.154**	ug/L	74.8	5662.027	5844.1	3.6
|	Se	82	Se	**-0.075**	ug/L	104.9	136.669	120.6	11.2
⌊>	Ge	74	Ge		ug/L		1671827.061	1638161.1	1.0
⌈	Sr	88	Sr	**0.001**	ug/L	109.7	337.141	366.2	8.1
|	Mo	95	Mo	**0.260**	ug/L	13.6	25.556	936.7	12.7
|	Ag	107	Ag	**0.003**	ug/L	87.7	61.111	86.7	25.2
|	Cd	114	Cd	**-0.005**	ug/L	85.8	126.896	102.4	21.2
|	Sn	118	Sn	**0.162**	ug/L	19.4	240.002	1276.7	15.1
|	Sb	121	Sb	**0.105**	ug/L	6.6	105.556	981.1	5.2
|	Ba	137	Ba	**-0.001**	ug/L	597.2	91.111	88.9	21.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1665442.9	0.7
⌈	Tl	203	Tl	**0.184**	ug/L	21.5	142.223	1521.2	19.7
|	Pb	208	Pb	**0.007**	ug/L	15.4	2983.459	3124.6	1.9
|	U	238	U	**0.023**	ug/L	25.3	35.556	671.1	24.4
| >	Lu	175	Lu		ug/L		1529228.797	1518890.0	1.2
⌊	Hg	200	Hg	**0.031**	ug/L	43.8	23.333	77.8	31.6

Sample ID: QC Std 4

Sample Date/Time: Friday, September 23, 2011 13:22:49
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.048

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		105.143
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		96.997
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		97.986
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.155
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		99.324
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-16-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 13:25:57
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-16-b .049

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.360**	ug/L	11.0	3.333	227.8	11.0
⌊>	Li	6	Li		ug/L		154080.983	196233.0	0.3
⌈	Al	27	Al	**28877.086**	ug/L	2.6	8047.857	138391996.0	1.9
|	Na	23	Na	**101.061**	ug/L	10.4	94055.323	677990.3	6.7
|	Mg	24	Mg	**7726.872**	ug/L	3.0	1852.343	27465964.1	0.4
|	P	31	P	**1471.857**	ug/L	3.3	4870.837	514351.4	1.4
|	K	39	K	**615.677**	ug/L	2.8	605845.902	6051637.7	1.7
|	Ca	44	Ca	**643.237**	ug/L	6.1	26271.930	214107.7	2.6
⌊>	Sc	45	Sc		ug/L		1611311.536	1839438.7	3.2
⌈	Fe	54	Fe	**43066.317**	ug/L	2.1	24475.102	30457731.1	2.3
|	Ti	47	Ti	**214.671**	ug/L	1.5	708.906	209816.4	1.3
|	V	51	V	**70.363**	ug/L	3.3	2027.133	754112.1	3.0
|	Cr	52	Cr	**25.437**	ug/L	3.4	7778.784	237780.4	3.0
|	Mn	55	Mn	**2047.138**	ug/L	2.3	7127.334	30271279.8	2.6
|	Co	59	Co	**16.689**	ug/L	1.9	248.891	177099.0	1.7
|	Ni	60	Ni	**14.441**	ug/L	2.3	2962.529	36287.2	2.4
|	Cu	65	Cu	**25.635**	ug/L	1.0	193.335	65806.8	0.9
|	Zn	68	Zn	**110.023**	ug/L	1.4	882.424	148647.3	1.4
|	As	75	As	**162.972**	ug/L	1.5	5662.027	367051.8	1.2
|	Se	82	Se	**0.777**	ug/L	22.4	136.669	313.3	11.5
⌊>	Ge	74	Ge		ug/L		1671827.061	1885059.2	0.3
⌈	Sr	88	Sr	**4.612**	ug/L	2.8	337.141	105567.4	0.2
|	Mo	95	Mo	**2.207**	ug/L	1.2	25.556	8274.6	1.7
|	Ag	107	Ag	**0.735**	ug/L	1.6	61.111	7139.6	3.6
|	Cd	114	Cd	**0.353**	ug/L	4.3	126.896	2077.6	1.3
|	Sn	118	Sn	**0.519**	ug/L	3.5	240.002	3782.7	5.6
|	Sb	121	Sb	**50.947**	ug/L	2.3	105.556	452445.9	1.1
|	Ba	137	Ba	**48.808**	ug/L	2.4	91.111	174849.5	2.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1772762.5	2.9
⌈	Tl	203	Tl	**0.330**	ug/L	2.3	142.223	2800.3	0.2
|	Pb	208	Pb	**96.195**	ug/L	0.8	2983.459	2528690.0	1.6
|	U	238	U	**0.483**	ug/L	2.2	35.556	14294.9	3.5
| >	Lu	175	Lu		ug/L		1529228.797	1626099.5	2.1
⌊	Hg	200	Hg	**0.999**	ug/L	3.8	23.333	1881.2	5.6

Sample ID: 580-28720-a-16-b

Sample Date/Time: Friday, September 23, 2011 13:25:57
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-16-b .049

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		127.357
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		114.158
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		112.754
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		107.673
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		106.335
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-17-b

Sample Description: 10X
Sample Date/Time: Friday, September 23, 2011 13:29:03
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-17-b .050

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.161**	ug/L	8.1	3.333	108.9	4.7
⌊>	Li	6	Li		ug/L		154080.983	205052.1	3.2
⌈	Al	27	Al	**10008.601**	ug/L	1.7	8047.857	49565100.9	4.8
|	Na	23	Na	**94.967**	ug/L	8.9	94055.323	665876.1	9.4
|	Mg	24	Mg	**1075.426**	ug/L	3.8	1852.343	3949717.1	3.9
|	P	31	P	**499.956**	ug/L	0.5	4870.837	184296.7	3.7
|	K	39	K	**285.177**	ug/L	7.6	605845.902	3274830.9	3.5
|	Ca	44	Ca	**306.699**	ug/L	5.6	26271.930	121603.2	1.8
⌊>	Sc	45	Sc		ug/L		1611311.536	1899044.0	3.2
⌈	Fe	54	Fe	**14699.520**	ug/L	5.2	24475.102	11873458.8	2.2
|	Ti	47	Ti	**362.328**	ug/L	5.3	708.906	403158.6	2.5
|	V	51	V	**26.212**	ug/L	5.3	2027.133	322010.9	3.4
|	Cr	52	Cr	**5.463**	ug/L	4.8	7778.784	66117.2	3.6
|	Mn	55	Mn	**70.778**	ug/L	6.7	7127.334	1201429.0	2.4
|	Co	59	Co	**2.198**	ug/L	4.6	248.891	26880.8	3.1
|	Ni	60	Ni	**3.451**	ug/L	5.8	2962.529	12796.8	4.6
|	Cu	65	Cu	**13.640**	ug/L	4.7	193.335	40048.3	2.7
|	Zn	68	Zn	**8.905**	ug/L	2.9	882.424	14777.3	4.6
|	As	75	As	**10.271**	ug/L	7.8	5662.027	33180.5	1.4
|	Se	82	Se	**0.403**	ug/L	26.8	136.669	269.4	2.2
⌊>	Ge	74	Ge		ug/L		1671827.061	2154519.1	7.1
⌈	Sr	88	Sr	**4.347**	ug/L	1.3	337.141	106485.0	2.7
|	Mo	95	Mo	**0.807**	ug/L	1.9	25.556	3252.6	2.8
|	Ag	107	Ag	**0.456**	ug/L	2.4	61.111	4757.5	1.2
|	Cd	114	Cd	**0.349**	ug/L	12.0	126.896	2197.8	11.1
|	Sn	118	Sn	**0.539**	ug/L	2.8	240.002	4189.5	2.4
|	Sb	121	Sb	**1.315**	ug/L	4.2	105.556	12614.5	4.7
|	Ba	137	Ba	**12.039**	ug/L	2.2	91.111	46212.4	2.8
⌊>	Rh	103	Rh		ug/L		1646429.824	1895749.7	1.9
⌈	Tl	203	Tl	**0.079**	ug/L	12.0	142.223	834.5	12.2
|	Pb	208	Pb	**7.903**	ug/L	0.8	2983.459	224254.4	2.0
|	U	238	U	**0.347**	ug/L	0.7	35.556	10939.7	3.4
| >	Lu	175	Lu		ug/L		1529228.797	1731114.3	2.7
⌊	Hg	200	Hg	**0.128**	ug/L	17.4	23.333	278.9	15.1

Sample ID: 580-28720-a-17-b

Sample Date/Time: Friday, September 23, 2011 13:29:03
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-17-b .050

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		133.081
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		117.857
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		128.872
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		115.143
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		113.202
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-1-e

Sample Description: 1000X
Sample Date/Time: Friday, September 23, 2011 13:32:08
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-e .051

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.010**	ug/L	94.1	3.333	8.9	57.3
⌊>	Li	6	Li		ug/L		154080.983	166093.7	2.5
⌈	Al	27	Al	**27.318**	ug/L	2.3	8047.857	116428.2	2.3
|	Na	23	Na	**-11.543**	ug/L	0.8	94055.323	34961.6	1.4
|	Mg	24	Mg	**12.077**	ug/L	1.0	1852.343	37435.7	1.0
|	P	31	P	**12.709**	ug/L	16.2	4870.837	8271.3	7.3
|	K	39	K	**9.513**	ug/L	14.4	605845.902	643333.4	1.6
|	Ca	44	Ca	**0.645**	ug/L	138.9	26271.930	25066.4	0.9
⌊>	Sc	45	Sc		ug/L		1611311.536	1527955.9	0.2
⌈	Fe	54	Fe	**1508.633**	ug/L	2.4	24475.102	954611.8	0.3
|	Ti	47	Ti	**-0.063**	ug/L	81.8	708.906	644.5	7.1
|	V	51	V	**0.460**	ug/L	16.2	2027.133	6297.2	12.9
|	Cr	52	Cr	**0.085**	ug/L	56.3	7778.784	8319.1	2.4
|	Mn	55	Mn	**99.502**	ug/L	2.2	7127.334	1291082.5	0.6
|	Co	59	Co	**0.319**	ug/L	0.9	248.891	3198.1	1.4
|	Ni	60	Ni	**-1.242**	ug/L	0.8	2962.529	442.2	6.0
|	Cu	65	Cu	**3.695**	ug/L	2.2	193.335	8444.7	1.4
|	Zn	68	Zn	**38.204**	ug/L	0.5	882.424	45639.8	2.1
|	As	75	As	**179.765**	ug/L	1.8	5662.027	352906.2	0.7
|	Se	82	Se	**-0.044**	ug/L	258.9	136.669	126.7	16.0
⌊>	Ge	74	Ge		ug/L		1671827.061	1646098.1	2.1
⌈	Sr	88	Sr	**1.029**	ug/L	4.9	337.141	21712.0	5.5
|	Mo	95	Mo	**0.052**	ug/L	16.9	25.556	203.3	15.6
|	Ag	107	Ag	**0.231**	ug/L	4.9	61.111	2082.4	4.4
|	Cd	114	Cd	**0.207**	ug/L	7.7	126.896	1161.9	7.8
|	Sn	118	Sn	**0.024**	ug/L	30.2	240.002	385.6	12.6
|	Sb	121	Sb	**6.249**	ug/L	1.6	105.556	50606.1	0.5
|	Ba	137	Ba	**0.262**	ug/L	24.9	91.111	944.5	23.1
⌊>	Rh	103	Rh		ug/L		1646429.824	1613236.0	1.1
⌈	Tl	203	Tl	**0.024**	ug/L	12.8	142.223	320.0	5.8
|	Pb	208	Pb	**20.893**	ug/L	2.3	2983.459	508244.3	1.0
|	U	238	U	**0.002**	ug/L	19.8	35.556	96.7	13.8
| >	Lu	175	Lu		ug/L		1529228.797	1498210.8	1.5
⌊	Hg	200	Hg	**0.040**	ug/L	24.3	23.333	91.1	16.9

Sample ID: 580-28720-a-1-e

Sample Date/Time: Friday, September 23, 2011 13:32:08
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-1-e .051

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		107.796
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		94.827
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		98.461
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		97.984
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		97.972
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-28720-a-2-b

Sample Description: 1000X
Sample Date/Time: Friday, September 23, 2011 13:35:14
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00009, ANALYST = FCW , ICSA & ICSAB 091911
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-2-b .052

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.023**	ug/L	31.1	3.333	15.6	24.7
⌊>	Li	6	Li		ug/L		154080.983	166387.8	0.8
⌈	Al	27	Al	**160.736**	ug/L	4.6	8047.857	661770.3	2.9
|	Na	23	Na	**-10.047**	ug/L	2.2	94055.323	42931.2	4.3
|	Mg	24	Mg	**59.044**	ug/L	3.9	1852.343	180009.5	1.9
|	P	31	P	**8.749**	ug/L	9.8	4870.837	7287.4	1.4
|	K	39	K	**8.730**	ug/L	4.9	605845.902	651790.5	1.8
|	Ca	44	Ca	**60.397**	ug/L	4.5	26271.930	40153.0	0.5
⌊>	Sc	45	Sc		ug/L		1611311.536	1561864.0	2.1
⌈	Fe	54	Fe	**1319.261**	ug/L	2.6	24475.102	845526.8	1.3
|	Ti	47	Ti	**1.673**	ug/L	2.5	708.906	2140.2	3.1
|	V	51	V	**1.421**	ug/L	27.1	2027.133	15376.0	23.1
|	Cr	52	Cr	**0.240**	ug/L	17.0	7778.784	9631.0	2.0
|	Mn	55	Mn	**40.143**	ug/L	0.8	7127.334	529953.2	0.6
|	Co	59	Co	**0.290**	ug/L	5.4	248.891	2951.4	3.9
|	Ni	60	Ni	**-1.152**	ug/L	1.0	2962.529	626.7	3.8
|	Cu	65	Cu	**6.189**	ug/L	2.2	193.335	14144.8	1.6
|	Zn	68	Zn	**66.750**	ug/L	1.2	882.424	79807.1	1.1
|	As	75	As	**161.431**	ug/L	1.0	5662.027	320417.7	0.5
|	Se	82	Se	**-0.116**	ug/L	107.3	136.669	115.0	20.9
⌊>	Ge	74	Ge		ug/L		1671827.061	1661099.0	1.4
⌈	Sr	88	Sr	**0.340**	ug/L	2.3	337.141	7491.4	3.4
|	Mo	95	Mo	**0.103**	ug/L	9.5	25.556	381.1	9.0
|	Ag	107	Ag	**0.399**	ug/L	2.5	61.111	3600.5	3.1
|	Cd	114	Cd	**0.427**	ug/L	4.7	126.896	2292.9	6.2
|	Sn	118	Sn	**0.032**	ug/L	7.8	240.002	435.6	4.4
|	Sb	121	Sb	**3.041**	ug/L	2.4	105.556	24991.8	1.9
|	Ba	137	Ba	**0.467**	ug/L	5.5	91.111	1630.1	4.6
⌊>	Rh	103	Rh		ug/L		1646429.824	1633627.9	2.0
⌈	Tl	203	Tl	**0.012**	ug/L	51.1	142.223	231.1	19.0
|	Pb	208	Pb	**23.683**	ug/L	0.8	2983.459	578393.8	0.8
|	U	238	U	**0.021**	ug/L	14.5	35.556	614.5	13.1
| >	Lu	175	Lu		ug/L		1529228.797	1504933.3	1.3
⌊	Hg	200	Hg	**0.030**	ug/L	49.6	23.333	74.4	33.6

Sample ID: 580-28720-a-2-b

Sample Date/Time: Friday, September 23, 2011 13:35:14
Dataset File: C:\elandata\DataSet\092311PM\580-28720-a-2-b .052

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		107.987
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		96.931
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.358
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.222
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		98.411
⌊	Hg	200	Hg		

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Friday, September 23, 2011 13:38:22
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.053

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**49.511**	ug/L	1.7	3.333	25453.8	1.3
⌊>	Li	6	Li		ug/L		154080.983	162466.4	0.4
⌈	Al	27	Al	**520.131**	ug/L	3.1	8047.857	2110130.7	1.9
|	Na	23	Na	**5052.874**	ug/L	1.4	94055.323	24188070.4	0.4
|	Mg	24	Mg	**5167.381**	ug/L	2.5	1852.343	15497441.6	1.4
|	P	31	P	**5027.317**	ug/L	1.6	4870.837	1471337.7	2.8
|	K	39	K	**5076.147**	ug/L	1.6	605845.902	37867306.5	1.4
|	Ca	44	Ca	**4938.385**	ug/L	2.7	26271.930	1218941.7	3.7
⌊>	Sc	45	Sc		ug/L		1611311.536	1551200.4	1.2
⌈	Fe	54	Fe	**4962.122**	ug/L	0.6	24475.102	3128594.9	0.2
|	Ti	47	Ti	**48.440**	ug/L	1.7	708.906	42468.6	1.9
|	V	51	V	**50.069**	ug/L	0.8	2027.133	475719.7	0.6
|	Cr	52	Cr	**50.155**	ug/L	0.4	7778.784	407591.9	0.8
|	Mn	55	Mn	**50.175**	ug/L	2.7	7127.334	663832.0	2.8
|	Co	59	Co	**51.106**	ug/L	0.9	248.891	479655.3	0.8
|	Ni	60	Ni	**49.129**	ug/L	1.1	2962.529	102192.0	0.6
|	Cu	65	Cu	**51.037**	ug/L	2.1	193.335	115813.3	2.3
|	Zn	68	Zn	**49.449**	ug/L	0.6	882.424	59635.4	0.2
|	As	75	As	**50.850**	ug/L	2.0	5662.027	105289.8	1.7
|	Se	82	Se	**49.263**	ug/L	1.7	136.669	9076.9	1.3
⌊>	Ge	74	Ge		ug/L		1671827.061	1669006.2	0.5
⌈	Sr	88	Sr	**50.027**	ug/L	1.9	337.141	1048332.0	2.1
|	Mo	95	Mo	**49.934**	ug/L	1.5	25.556	171315.7	1.7
|	Ag	107	Ag	**50.855**	ug/L	0.1	61.111	449292.6	0.3
|	Cd	114	Cd	**50.471**	ug/L	0.6	126.896	254883.4	0.5
|	Sn	118	Sn	**50.517**	ug/L	0.8	240.002	314838.3	0.9
|	Sb	121	Sb	**50.487**	ug/L	1.0	105.556	411705.1	0.7
|	Ba	137	Ba	**50.343**	ug/L	1.2	91.111	165581.9	1.1
⌊>	Rh	103	Rh		ug/L		1646429.824	1627185.5	0.3
⌈	Tl	203	Tl	**50.080**	ug/L	0.9	142.223	372702.8	2.1
|	Pb	208	Pb	**50.440**	ug/L	0.9	2983.459	1230627.9	0.5
|	U	238	U	**47.924**	ug/L	1.4	35.556	1312085.0	0.2
| >	Lu	175	Lu		ug/L		1529228.797	1507513.1	1.3
⌊	Hg	200	Hg	**2.531**	ug/L	4.0	23.333	4382.9	5.3

Sample ID: QC Std 3

Sample Date/Time: Friday, September 23, 2011 13:38:22
Dataset File: C:\elandata\DataSet\092311PM\QC Std 3.053

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	99.023	
⌊>	Li	6	Li		105.442
⌈	Al	27	Al	104.026	
|	Na	23	Na	101.057	
|	Mg	24	Mg	103.348	
|	P	31	P	100.546	
|	K	39	K	101.523	
|	Ca	44	Ca	98.768	
⌊>	Sc	45	Sc		96.269
⌈	Fe	54	Fe	99.242	
|	Ti	47	Ti	96.881	
|	V	51	V	100.139	
|	Cr	52	Cr	100.309	
|	Mn	55	Mn	100.351	
|	Co	59	Co	102.213	
|	Ni	60	Ni	98.258	
|	Cu	65	Cu	102.074	
|	Zn	68	Zn	98.898	
|	As	75	As	101.701	
|	Se	82	Se	98.526	
⌊>	Ge	74	Ge		99.831
⌈	Sr	88	Sr	100.054	
|	Mo	95	Mo	99.869	
|	Ag	107	Ag	101.710	
|	Cd	114	Cd	100.942	
|	Sn	118	Sn	101.034	
|	Sb	121	Sb	100.974	
|	Ba	137	Ba	100.686	
⌊>	Rh	103	Rh		98.831
⌈	Tl	203	Tl	100.159	
|	Pb	208	Pb	100.880	
|	U	238	U	95.848	
| >	Lu	175	Lu		98.580
⌊	Hg	200	Hg	101.248	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Friday, September 23, 2011 13:41:34
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.054

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.008**	ug/L	120.3	3.333	7.8	65.5
⌊>	Li	6	Li		ug/L		154080.983	162297.9	0.9
⌈	Al	27	Al	**0.112**	ug/L	310.3	8047.857	8212.4	12.9
|	Na	23	Na	**-11.321**	ug/L	1.3	94055.323	36753.9	3.5
|	Mg	24	Mg	**0.035**	ug/L	315.8	1852.343	1891.2	13.4
|	P	31	P	**1.113**	ug/L	193.7	4870.837	5033.1	11.0
|	K	39	K	**-0.462**	ug/L	243.2	605845.902	583109.9	3.4
|	Ca	44	Ca	**-26.048**	ug/L	21.1	26271.930	19072.7	2.9
⌊>	Sc	45	Sc		ug/L		1611311.536	1560315.9	4.1
⌈	Fe	54	Fe	**5.835**	ug/L	10.8	24475.102	28062.0	2.1
|	Ti	47	Ti	**-0.291**	ug/L	18.2	708.906	456.7	11.9
|	V	51	V	**0.280**	ug/L	103.4	2027.133	4678.5	59.9
|	Cr	52	Cr	**0.056**	ug/L	58.6	7778.784	8203.5	1.3
|	Mn	55	Mn	**-0.233**	ug/L	5.5	7127.334	4066.1	4.4
|	Co	59	Co	**-0.007**	ug/L	33.1	248.891	184.4	10.0
|	Ni	60	Ni	**-0.927**	ug/L	1.1	2962.529	1083.3	0.5
|	Cu	65	Cu	**-0.029**	ug/L	16.5	193.335	127.8	7.5
|	Zn	68	Zn	**-0.192**	ug/L	36.4	882.424	651.5	11.6
|	As	75	As	**0.139**	ug/L	91.5	5662.027	5922.5	5.9
|	Se	82	Se	**-0.147**	ug/L	76.7	136.669	109.4	16.3
⌊>	Ge	74	Ge		ug/L		1671827.061	1667836.0	2.2
⌈	Sr	88	Sr	**0.001**	ug/L	787.3	337.141	354.8	30.0
|	Mo	95	Mo	**0.259**	ug/L	21.2	25.556	935.6	20.1
|	Ag	107	Ag	**0.003**	ug/L	76.8	61.111	92.2	25.4
|	Cd	114	Cd	**-0.010**	ug/L	45.3	126.896	75.1	31.7
|	Sn	118	Sn	**0.172**	ug/L	22.5	240.002	1341.2	17.9
|	Sb	121	Sb	**0.069**	ug/L	5.3	105.556	682.2	4.4
|	Ba	137	Ba	**-0.003**	ug/L	79.1	91.111	81.1	10.3
⌊>	Rh	103	Rh		ug/L		1646429.824	1667191.2	0.5
⌈	Tl	203	Tl	**0.203**	ug/L	24.7	142.223	1660.1	21.8
|	Pb	208	Pb	**-0.001**	ug/L	830.9	2983.459	2945.7	5.9
|	U	238	U	**0.024**	ug/L	17.3	35.556	705.6	15.4
| >	Lu	175	Lu		ug/L		1529228.797	1521352.5	1.0
⌊	Hg	200	Hg	**0.019**	ug/L	40.9	23.333	56.7	23.5

Sample ID: QC Std 4

Sample Date/Time: Friday, September 23, 2011 13:41:34
Dataset File: C:\elandata\DataSet\092311PM\QC Std 4.054

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		105.333
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		96.835
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.761
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.261
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		99.485
⌊	Hg	200	Hg		

Step	Mass	Element	r	b(blank)		DL	BEC	Unit	
1	6	Li	0.0000	---	---	---	ug/l		
1	7	Li	0.0000	---	---	---	ug/l		
1	9	Be	0.9999	1.051E-03		3.944E-03		8.244E-03	ug/l
1	23	Na	0.9999	3.280	1.630	63.68	ug/l		
1	24	Mg	1.0000	9.128E-03		4.137E-02		2.979E-01	ug/l
1	27	Al	1.0000	1.078E-01		2.951E-01		5.597	ug/l
1	31	P	1.0000	4.194E-02		7.575	27.34	ug/l	
1	39	K	1.0000	3.888	1.474	108.0	ug/l		
1	44	Ca	1.0000	2.571E-02		2.481	15.48	ug/l	
1	45	Sc	0.0000	---	---	---	ug/l		
1	47	Ti	1.0000	2.466E-04		3.900E-02		2.764E-02	ug/l
1	51	V	1.0000	5.227E-02		4.076E-02		2.467E-01	ug/l
1	52	Cr	1.0000	3.572E-02		2.408E-02		1.515E-01	ug/l
1	55	Mn	1.0000	1.511E-02		3.636E-02		8.722E-02	ug/l
1	57	Fe	0.9999	5.512E-03		1.448	2.245	ug/l	
1	59	Co	1.0000	2.550E-03		2.614E-03		7.759E-03	ug/l
1	60	Ni	0.9999	3.107E-03		7.072E-02		8.233E-02	ug/l
1	63	Cu	0.9999	1.919E-02		8.695E-02		1.976E-01	ug/l
1	66	Zn	1.0000	4.171E-03		9.474E-02		1.978E-01	ug/l
1	74	Ge	0.0000	---	---	---	ug/l		
1	75	As	1.0000	2.168E-03		2.936E-02		1.280E-01	ug/l
1	78	Se	1.0000	1.460E-03		1.269E-01		8.893E-01	ug/l
1	88	Sr	1.0000	8.356E-03		2.824E-03		8.464E-02	ug/l
1	95	Mo	0.9999	1.152E-03		9.510E-03		3.506E-02	ug/l
1	103	Rh	0.0000	---	---	---	ug/l		
1	109	Ag	0.9999	6.996E-04		2.234E-03		7.085E-03	ug/l
1	111	Cd	1.0000	4.190E-04		6.385E-03		2.378E-02	ug/l
1	118	Sn	1.0000	1.701E-03		6.998E-03		4.298E-02	ug/l
1	123	Sb	1.0000	6.175E-04		1.082E-02		1.337E-02	ug/l
1	135	Ba	1.0000	3.021E-04		5.279E-02		2.729E-02	ug/l
1	165	Ho	0.0000	---	---	---	ug/l		
1	175	Lu	0.0000	---	---	---	ug/l		
1	200	Hg	0.9999	6.371E-04		5.966E-03		1.346E-02	ug/l
1	205	Tl	1.0000	1.798E-03		6.617E-03		1.003E-02	ug/l
1	208	Pb	1.0000	2.190E-01		1.964E-02		3.993E-01	ug/l
1	209	Bi	0.0000	---	---	---	ug/l		
1	238	U	0.9999	1.210E-03		5.894E-04		2.178E-03	ug/l

TA Seattle Calibration Blank QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#
Date Acquired: Sep 27 2011 08:15 am Acq. Method: 00He_ALL.M
Sample Name: STD0 Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611
Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Tune # Name
Operator: FCW ICP-MS ID#SEA44 1 c:\icpchem\1\7500\he.u
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C 2 C:\ICPCHEM\1\7500\
Last Cal. Update: Sep 28 2011 06:49 am 3 C:\ICPCHEM\1\7500\
ISTD Ref File : --- Sample Type: CalBlk

QC&ISTD Elements

Element		Tune	CPS Mean		SD	RSD(%)
6	Li	1	174495.1	P	1327.00	0.76
7	Li	1	13457.1	P	50.80	0.38
9	Be	1	3.7	P	0.58	15.75
23	Na	1	137144.2	P	782.10	0.57
24	Mg	1	381.7	P	17.56	4.60
27	Al	1	4505.9	P	52.69	1.17
31	P	1	1753.5	P	157.40	8.98
39	K	1	162574.3	P	882.20	0.54
44	Ca	1	1074.8	P	50.79	4.73
45	Sc	1	2090696.0	A	13330.00	0.64
47	Ti	1	10.3	P	4.93	47.74
51	V	1	2185.2	P	106.90	4.89
52	Cr	1	1493.5	P	70.96	4.75
55	Mn	1	631.7	P	85.20	13.49
56	Fe	1		P		
57	Fe	1	500.0	P	108.30	21.66
59	Co	1	106.7	P	12.58	11.79
60	Ni	1	281.7	P	79.74	28.31
63	Cu	1	1740.2	P	253.80	14.59
66	Zn	1	378.3	P	60.28	15.93
74	Ge	1	4535662.0	A	27710.00	0.61
75	As	1	196.7	P	14.47	7.36
78	Se	1	132.5	P	6.87	5.19
88	Sr	1	758.0	P	7.99	1.05
95	Mo	1	140.0	P	13.23	9.45
99	(Mo)	1		P		
103	Rh	1	6076454.0	A	26410.00	0.43
106	(Cd)	1		P		
108	(Cd)	1		P		
109	Ag	1	85.0	P	8.66	10.19
111	Cd	1	50.9	P	4.74	9.32
118	Sn	1	206.7	P	10.41	5.04
123	Sb	1	75.0	P	20.00	26.67
135	Ba	1	36.7	P	23.63	64.44
165	Ho	1	2579634.0	A	16820.00	0.65
175	Lu	1	2136464.0	A	12970.00	0.61
200	Hg	1	33.3	P	4.93	14.80
205	Tl	1	218.3	P	47.26	21.65
206	Pb	1		P		
207	Pb	1		P		
208	Pb	1	11457.5	P	63.87	0.56
209	Bi	1	2616350.0	A	34280.00	1.31
238	U	1	63.3	P	5.77	9.12

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\092711AM.B\006CALS.D\006CALS.D#

Date Acquired: Sep 27 2011 08:19 am

Acq. Method: 00He_ALL.M

Sample Name: **STD1**

Vial Number: 1305

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

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Last Cal. Update: Sep 28 2011 06:49 am

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ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

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QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	42.0	P	3.61	8.59
23	Na	45	1	163381.0	P	1847.00	1.13
24	Mg	45	1	13659.2	P	185.60	1.36
27	Al	45	1	4747.7	P	284.60	5.99
31	P	45	1	2353.6	P	67.53	2.87
39	K	45	1	178331.9	P	942.80	0.53
44	Ca	45	1	1718.4	P	37.56	2.19
47	Ti	45	1	47.0	P	12.77	27.17
51	V	45	1	3047.1	P	155.20	5.09
52	Cr	45	1	2533.6	P	36.17	1.43
55	Mn	45	1	1345.1	P	67.27	5.00
57	Fe	74	1	2665.3	P	127.60	4.79
59	Co	45	1	1541.8	P	98.04	6.36
60	Ni	74	1	653.4	P	50.34	7.70
63	Cu	74	1	3054.1	P	400.00	13.10
66	Zn	74	1	605.0	P	17.32	2.86
75	As	74	1	357.3	P	14.05	3.93
78	Se	74	1	141.7	P	7.77	5.48
88	Sr	74	1	1717.9	P	57.81	3.37
95	Mo	103	1	508.4	P	40.11	7.89
109	Ag	103	1	1288.4	P	89.64	6.96
111	Cd	103	1	247.7	P	17.49	7.06
118	Sn	103	1	751.7	P	64.49	8.58
123	Sb	103	1	651.7	P	27.54	4.23
135	Ba	103	1	186.7	P	12.58	6.74
200	Hg	209	1	43.7	P	4.04	9.25
205	Tl	103	1	2303.6	P	195.60	8.49
208	Pb	209	1	14293.8	P	367.30	2.57
238	U	209	1	2823.7	P	114.30	4.05

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	175775	1.39	174500	100.7	30 - 125	
45	Sc	1	2093635	0.93	2091000	100.1	30 - 125	
74	Ge	1	4513036	0.55	4536000	99.5	30 - 125	
103	Rh	1	6132863	0.66	6076000	100.9	30 - 125	
165	Ho	1	2590609	1.28	2580000	100.4	30 - 125	
175	Lu	1	2137158	0.99	2136000	100.1	30 - 125	
209	Bi	1	2586640	1.45	2616000	98.9	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\092711AM.B\007CALS.D\007CALS.D#

Date Acquired: Sep 27 2011 08:24 am

Acq. Method: 00He_ALL.M

Sample Name: **STD2**

Vial Number: 1304

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

Last Cal. Update: Sep 28 2011 06:49 am

ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune # Name

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QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	422.7	P	6.66	1.58
23	Na	45	1	363041.8	P	2235.00	0.62
24	Mg	45	1	133347.9	P	829.60	0.62
27	Al	45	1	11487.0	P	287.80	2.51
31	P	45	1	7892.6	P	224.80	2.85
39	K	45	1	313393.2	P	921.10	0.29
44	Ca	45	1	7944.3	P	121.30	1.53
47	Ti	45	1	388.7	P	15.95	4.10
51	V	45	1	10794.8	P	224.80	2.08
52	Cr	45	1	11311.9	P	110.70	0.98
55	Mn	45	1	8067.7	P	251.30	3.11
57	Fe	74	1	22107.9	P	652.50	2.95
59	Co	45	1	14113.1	P	185.50	1.31
60	Ni	74	1	3925.7	P	96.60	2.46
63	Cu	74	1	10946.6	P	140.70	1.29
66	Zn	74	1	2205.2	P	185.80	8.43
75	As	74	1	1706.8	P	26.03	1.53
78	Se	74	1	280.5	P	17.44	6.22
88	Sr	74	1	9679.2	P	124.80	1.29
95	Mo	103	1	3992.4	P	90.09	2.26
109	Ag	103	1	11956.0	P	401.90	3.36
111	Cd	103	1	2123.1	P	159.80	7.53
118	Sn	103	1	4832.7	P	168.70	3.49
123	Sb	103	1	5431.3	P	231.90	4.27
135	Ba	103	1	1435.1	P	95.02	6.62
200	Hg	209	1	144.3	P	4.62	3.20
205	Tl	103	1	20289.6	P	773.40	3.81
208	Pb	209	1	39647.2	P	801.80	2.02
238	U	209	1	27623.7	P	339.70	1.23

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	171573	0.55	174500	98.3	30 - 125	
45	Sc	1	2076503	1.83	2091000	99.3	30 - 125	
74	Ge	1	4541388	0.50	4536000	100.1	30 - 125	
103	Rh	1	6074791	0.45	6076000	100.0	30 - 125	
165	Ho	1	2592281	1.62	2580000	100.5	30 - 125	
175	Lu	1	2155323	1.32	2136000	100.9	30 - 125	
209	Bi	1	2619609	0.75	2616000	100.1	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\092711AM.B\008CALS.D\008CALS.D#

Date Acquired: Sep 27 2011 08:28 am

Acq. Method: 00He_ALL.M

Sample Name: **STD3**

Vial Number: 1303

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

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Last Cal. Update: Sep 28 2011 06:49 am

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ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

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QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	4255.0	P	38.71	0.91
23	Na	45	1	2338402.0	A	13230.00	0.57
24	Mg	45	1	1311739.0	A	10250.00	0.78
27	Al	45	1	83055.1	P	1337.00	1.61
31	P	45	1	64106.3	P	1116.00	1.74
39	K	45	1	1698088.0	A	43050.00	2.54
44	Ca	45	1	69922.8	P	108.40	0.16
47	Ti	45	1	3722.6	P	31.76	0.85
51	V	45	1	88438.0	P	503.90	0.57
52	Cr	45	1	97442.3	P	1640.00	1.68
55	Mn	45	1	73589.5	P	678.20	0.92
57	Fe	74	1	218402.2	P	1169.00	0.54
59	Co	45	1	138077.0	P	2384.00	1.73
60	Ni	74	1	34814.9	P	479.30	1.38
63	Cu	74	1	92602.2	P	253.30	0.27
66	Zn	74	1	19929.4	P	198.10	0.99
75	As	74	1	15525.0	P	295.00	1.90
78	Se	74	1	1598.4	P	16.83	1.05
88	Sr	74	1	89587.3	P	1301.00	1.45
95	Mo	103	1	38503.4	P	362.10	0.94
109	Ag	103	1	117363.0	P	73.44	0.06
111	Cd	103	1	21330.5	P	641.50	3.01
118	Sn	103	1	47167.9	P	627.60	1.33
123	Sb	103	1	55045.8	P	621.60	1.13
135	Ba	103	1	13207.4	P	386.70	2.93
200	Hg	209	1	1257.1	P	43.10	3.43
205	Tl	103	1	206579.4	P	4073.00	1.97
208	Pb	209	1	295273.4	P	2709.00	0.92
238	U	209	1	276682.7	P	2821.00	1.02

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	171037	0.61	174500	98.0	30 - 125	
45	Sc	1	2071698	1.51	2091000	99.1	30 - 125	
74	Ge	1	4447415	0.53	4536000	98.0	30 - 125	
103	Rh	1	5984389	0.71	6076000	98.5	30 - 125	
165	Ho	1	2590186	2.24	2580000	100.4	30 - 125	
175	Lu	1	2117773	0.49	2136000	99.1	30 - 125	
209	Bi	1	2605259	1.34	2616000	99.6	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\092711AM.B\009CALS.D\009CALS.D#

Date Acquired: Sep 27 2011 08:33 am

Acq. Method: 00He_ALL.M

Sample Name: **STD4**

Vial Number: 1302

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

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Last Cal. Update: Sep 28 2011 06:49 am

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ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	20854.3	P	129.30	0.62
23	Na	45	1	10844140.0	A	158800.00	1.46
24	Mg	45	1	6328669.0	A	39900.00	0.63
27	Al	45	1	398951.8	P	1248.00	0.31
31	P	45	1	313578.8	P	1315.00	0.42
39	K	45	1	7550081.0	A	136500.00	1.81
44	Ca	45	1	343338.2	P	2910.00	0.85
47	Ti	45	1	18346.2	P	139.00	0.76
51	V	45	1	429113.2	P	2177.00	0.51
52	Cr	45	1	475023.5	P	1350.00	0.28
55	Mn	45	1	360089.7	P	175.80	0.05
57	Fe	74	1	1120611.0	A	10660.00	0.95
59	Co	45	1	670690.8	P	8021.00	1.20
60	Ni	74	1	172175.6	P	1865.00	1.08
63	Cu	74	1	443433.7	P	5589.00	1.26
66	Zn	74	1	94807.7	P	337.60	0.36
75	As	74	1	75724.6	P	750.00	0.99
78	Se	74	1	7459.1	P	38.03	0.51
88	Sr	74	1	441267.2	P	2599.00	0.59
95	Mo	103	1	190481.2	P	1131.00	0.59
109	Ag	103	1	572207.8	P	6055.00	1.06
111	Cd	103	1	103722.9	P	809.30	0.78
118	Sn	103	1	230491.1	P	4655.00	2.02
123	Sb	103	1	269710.5	P	2332.00	0.86
135	Ba	103	1	65052.5	P	1223.00	1.88
200	Hg	209	1	5886.5	P	13.24	0.22
205	Tl	103	1	1057369.0	A	41100.00	3.89
208	Pb	209	1	1378639.0	P	18630.00	1.35
238	U	209	1	1425330.0	A	20300.00	1.42

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	166444	0.87	174500	95.4	30 - 125	
45	Sc	1	2042049	2.36	2091000	97.7	30 - 125	
74	Ge	1	4472355	0.65	4536000	98.6	30 - 125	
103	Rh	1	5910293	0.51	6076000	97.3	30 - 125	
165	Ho	1	2546706	0.77	2580000	98.7	30 - 125	
175	Lu	1	2109048	0.43	2136000	98.7	30 - 125	
209	Bi	1	2521626	0.09	2616000	96.4	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\092711AM.B\010CALS.D\010CALS.D#

Date Acquired: Sep 27 2011 08:37 am — Acq. Method: 00He_ALL.M

Sample Name: **STD5** — Vial Number: 1301

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611 — Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M

Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C

Last Cal. Update: Sep 28 2011 06:49 am

ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	icpchem\1\7500\he.u
2	C:\ICPCHEM\1\7500\
3	C:\ICPCHEM\1\7500\

QC&ISTD Elements — Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	41589.9	P	153.50	0.37
23	Na	45	1	21003210.0	A	149900.00	0.71
24	Mg	45	1	12435060.0	A	91630.00	0.74
27	Al	45	1	787701.3	A	16210.00	2.06
31	P	45	1	627268.5	P	3159.00	0.50
39	K	45	1	14795450.0	A	149100.00	1.01
44	Ca	45	1	675797.2	P	983.30	0.15
47	Ti	45	1	36284.6	P	180.50	0.50
51	V	45	1	867993.7	A	10500.00	1.21
52	Cr	45	1	965870.5	A	10810.00	1.12
55	Mn	45	1	703241.5	P	5164.00	0.73
57	Fe	74	1	2150489.0	A	9299.00	0.43
59	Co	45	1	1338338.0	A	16410.00	1.23
60	Ni	74	1	330948.2	P	4487.00	1.36
63	Cu	74	1	852370.3	M	6567.00	0.77
66	Zn	74	1	185877.4	P	2430.00	1.31
75	As	74	1	149425.7	P	1301.00	0.87
78	Se	74	1	14594.0	P	109.90	0.75
88	Sr	74	1	870393.9	M	5825.00	0.67
95	Mo	103	1	378355.5	P	1439.00	0.38
109	Ag	103	1	1136793.0	A	14790.00	1.30
111	Cd	103	1	202048.0	P	1067.00	0.53
118	Sn	103	1	455312.7	P	1472.00	0.32
123	Sb	103	1	530637.7	P	3395.00	0.64
135	Ba	103	1	127038.7	P	859.90	0.68
200	Hg	209	1	11701.5	P	89.60	0.77
205	Tl	103	1	2056137.0	A	44920.00	2.18
208	Pb	209	1	2710084.0	A	15300.00	0.56
238	U	209	1	2718190.0	A	24270.00	0.89

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	162393	1.37	174500	93.1	30 - 125	
45	Sc	1	2036078	0.92	2091000	97.4	30 - 125	
74	Ge	1	4402134	0.73	4536000	97.0	30 - 125	
103	Rh	1	5727580	0.66	6076000	94.3	30 - 125	
165	Ho	1	2492788	1.34	2580000	96.6	30 - 125	
175	Lu	1	2078505	1.67	2136000	97.3	30 - 125	
209	Bi	1	2454298	0.49	2616000	93.8	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\011SMPL.D\011SMPL.D#
Date Acquired: Sep 27 2011 08:41 am Acq. Method: 00He_ALL.M
Sample Name: ICV Vial Number: 1105
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**39.950**	ug/l	39.95	1.2	5000	6	P	
23	**Na**	1	**4005.000**	ug/l	4,005.00	1.5	500000	45	A	
24	**Mg**	1	**4038.000**	ug/l	4,038.00	1.0	500000	45	A	
27	**Al**	1	**399.600**	ug/l	399.60	1.0	500000	45	P	
31	**P**	1	**3972.000**	ug/l	3,972.00	0.8	500000	45	P	
39	**K**	1	**3993.000**	ug/l	3,993.00	0.9	500000	45	A	
44	**Ca**	1	**4004.000**	ug/l	4,004.00	0.6	500000	45	P	
47	**Ti**	1	**40.470**	ug/l	40.47	0.4	5000	45	P	
51	**V**	1	**38.950**	ug/l	38.95	0.3	5000	45	P	
52	**Cr**	1	**38.950**	ug/l	38.95	1.5	5000	45	P	
55	**Mn**	1	**40.290**	ug/l	40.29	1.0	5000	45	P	
57	**Fe**	1	**4030.000**	ug/l	4,030.00	1.5	500000	74	A	
59	**Co**	1	**39.530**	ug/l	39.53	1.5	5000	45	P	
60	**Ni**	1	**41.230**	ug/l	41.23	0.7	5000	74	P	
63	**Cu**	1	**41.280**	ug/l	41.28	0.5	5000	74	P	
66	**Zn**	1	**40.790**	ug/l	40.79	0.4	5000	74	P	
75	**As**	1	**40.610**	ug/l	40.61	0.8	5000	74	P	
78	**Se**	1	**40.600**	ug/l	40.60	0.9	5000	74	P	
88	**Sr**	1	**40.350**	ug/l	40.35	1.0	5000	74	P	
95	**Mo**	1	**39.750**	ug/l	39.75	1.5	5000	103	P	
109	**Ag**	1	**39.590**	ug/l	39.59	1.4	200	103	P	
111	**Cd**	1	**40.770**	ug/l	40.77	1.2	5000	103	P	
118	**Sn**	1	**40.530**	ug/l	40.53	1.4	5000	103	P	
123	**Sb**	1	**39.920**	ug/l	39.92	1.5	5000	103	P	
135	**Ba**	1	**40.230**	ug/l	40.23	1.9	5000	103	P	
200	**Hg**	1	**1.972**	ug/l	1.97	2.1	50	209	P	
205	**Tl**	1	**39.620**	ug/l	39.62	1.0	5000	103	P	
208	**Pb**	1	**39.650**	ug/l	39.65	2.1	5000	209	P	
238	**U**	1	**40.320**	ug/l	40.32	2.2	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	165052	1.13	174500	**94.6**	30	-	125	
45	Sc	1	2064523	0.73	2091000	**98.7**	30	-	125	
74	Ge	1	4419188	0.60	4536000	**97.4**	30	-	125	
103	Rh	1	5853453	0.84	6076000	**96.3**	30	-	125	
165	Ho	1	2522154	2.08	2580000	**97.8**	30	-	125	
175	Lu	1	2082236	0.64	2136000	**97.5**	30	-	125	
209	Bi	1	2519111	1.47	2616000	**96.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\012SMPL.D\012SMPL.D#
Date Acquired: Sep 27 2011 08:45 am Acq. Method: 00He_ALL.M
Sample Name: ICB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	378.3	5000	6	P	
23	**Na**	1	**1.367**	ug/l	1.37	152.5	500000	45	P	
24	**Mg**	1	**0.067**	ug/l	0.07	37.8	500000	45	P	
27	**Al**	1	**-0.274**	ug/l	-0.27	111.9	500000	45	P	
31	**P**	1	**0.096**	ug/l	0.10	2572.1	500000	45	P	
39	**K**	1	**-1.000**	ug/l	-1.00	331.8	500000	45	P	
44	**Ca**	1	**-0.643**	ug/l	-0.64	65.1	500000	45	P	
47	**Ti**	1	**0.020**	ug/l	0.02	70.7	5000	45	P	
51	**V**	1	**-0.011**	ug/l	-0.01	137.9	5000	45	P	
52	**Cr**	1	**-0.013**	ug/l	-0.01	109.5	5000	45	P	
55	**Mn**	1	**-0.005**	ug/l	-0.01	370.9	5000	45	P	
57	**Fe**	1	**1.469**	ug/l	1.47	18.2	500000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	72.3	5000	45	P	
60	**Ni**	1	**-0.012**	ug/l	-0.01	68.4	5000	74	P	
63	**Cu**	1	**0.005**	ug/l	0.00	62.0	5000	74	P	
66	**Zn**	1	**0.009**	ug/l	0.01	381.8	5000	74	P	
75	**As**	1	**0.002**	ug/l	0.00	128.6	5000	74	P	
78	**Se**	1	**0.065**	ug/l	0.06	98.7	5000	74	P	
88	**Sr**	1	**-0.005**	ug/l	0.00	171.8	5000	74	P	
95	**Mo**	1	**0.093**	ug/l	0.09	4.7	5000	103	P	
109	**Ag**	1	**0.002**	ug/l	0.00	83.9	200	103	P	
111	**Cd**	1	**0.003**	ug/l	0.00	297.0	5000	103	P	
118	**Sn**	1	**0.213**	ug/l	0.21	18.1	5000	103	P	
123	**Sb**	1	**0.047**	ug/l	0.05	41.3	5000	103	P	
135	**Ba**	1	**0.002**	ug/l	0.00	138.6	5000	103	P	
200	**Hg**	1	**0.022**	ug/l	0.02	14.9	50	209	P	
205	**Tl**	1	**0.260**	ug/l	0.26	4.9	5000	103	P	
208	**Pb**	1	**-0.009**	ug/l	-0.01	127.0	5000	209	P	
238	**U**	1	**0.013**	ug/l	0.01	14.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	168528	0.47	174500	**96.6**	30	-	125	
45	Sc	1	2061372	3.14	2091000	**98.6**	30	-	125	
74	Ge	1	4461690	0.60	4536000	**98.4**	30	-	125	
103	Rh	1	5995786	0.40	6076000	**98.7**	30	-	125	
165	Ho	1	2576872	1.04	2580000	**99.9**	30	-	125	
175	Lu	1	2126811	1.74	2136000	**99.6**	30	-	125	
209	Bi	1	2615019	1.32	2616000	**100.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\013SMPL.D\013SMPL.D#
Date Acquired: Sep 27 2011 08:50 am Acq. Method: 00He_ALL.M
Sample Name: CRI Vial Number: 1107
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.989**	ug/l	1.99	3.5	5000	6	P	
23	**Na**	1	**209.600**	ug/l	209.60	1.7	500000	45	P	
24	**Mg**	1	**208.400**	ug/l	208.40	1.8	500000	45	P	
27	**Al**	1	**18.720**	ug/l	18.72	3.6	500000	45	P	
31	**P**	1	**194.800**	ug/l	194.80	1.6	500000	45	P	
39	**K**	1	**204.700**	ug/l	204.70	1.8	500000	45	P	
44	**Ca**	1	**198.800**	ug/l	198.80	1.2	500000	45	P	
47	**Ti**	1	**2.111**	ug/l	2.11	0.9	5000	45	P	
51	**V**	1	**1.943**	ug/l	1.94	2.3	5000	45	P	
52	**Cr**	1	**1.928**	ug/l	1.93	0.7	5000	45	P	
55	**Mn**	1	**2.029**	ug/l	2.03	2.7	5000	45	P	
57	**Fe**	1	**196.500**	ug/l	196.50	2.6	500000	74	P	
59	**Co**	1	**2.043**	ug/l	2.04	1.3	5000	45	P	
60	**Ni**	1	**2.020**	ug/l	2.02	2.1	5000	74	P	
63	**Cu**	1	**2.095**	ug/l	2.10	2.7	5000	74	P	
66	**Zn**	1	**1.943**	ug/l	1.94	2.4	5000	74	P	
75	**As**	1	**1.996**	ug/l	2.00	3.5	5000	74	P	
78	**Se**	1	**2.027**	ug/l	2.03	8.5	5000	74	P	
88	**Sr**	1	**2.040**	ug/l	2.04	0.9	5000	74	P	
95	**Mo**	1	**1.939**	ug/l	1.94	2.1	5000	103	P	
109	**Ag**	1	**1.990**	ug/l	1.99	1.1	200	103	P	
111	**Cd**	1	**1.982**	ug/l	1.98	2.3	5000	103	P	
118	**Sn**	1	**2.043**	ug/l	2.04	3.0	5000	103	P	
123	**Sb**	1	**2.001**	ug/l	2.00	3.3	5000	103	P	
135	**Ba**	1	**2.032**	ug/l	2.03	7.0	5000	103	P	
200	**Hg**	1	**0.118**	ug/l	0.12	4.5	50	209	P	
205	**Tl**	1	**1.942**	ug/l	1.94	3.4	5000	103	P	
208	**Pb**	1	**2.009**	ug/l	2.01	1.5	5000	209	P	
238	**U**	1	**1.934**	ug/l	1.93	0.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	165661	1.26	174500	**94.9**	30	-	125	
45	Sc	1	2070348	1.69	2091000	**99.0**	30	-	125	
74	Ge	1	4487455	1.64	4536000	**98.9**	30	-	125	
103	Rh	1	6039728	0.84	6076000	**99.4**	30	-	125	
165	Ho	1	2564069	0.50	2580000	**99.4**	30	-	125	
175	Lu	1	2156199	0.34	2136000	**100.9**	30	-	125	
209	Bi	1	2585875	0.25	2616000	**98.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\014SMPL.D\014SMPL.D#
Date Acquired: Sep 27 2011 08:54 am Acq. Method: 00He_ALL.M
Sample Name: ICSA Vial Number: 1101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	491.7	5000	6	P	
23	**Na**	1	**50920.000**	ug/l	50,920.00	0.9	500000	45	A	
24	**Mg**	1	**20250.000**	ug/l	20,250.00	1.1	500000	45	A	
27	**Al**	1	**19520.000**	ug/l	19,520.00	1.1	500000	45	A	
31	**P**	1	**21300.000**	ug/l	21,300.00	0.4	500000	45	A	
39	**K**	1	**20290.000**	ug/l	20,290.00	1.3	500000	45	A	
44	**Ca**	1	**60310.000**	ug/l	60,310.00	1.2	500000	45	A	
47	**Ti**	1	**415.000**	ug/l	415.00	1.5	5000	45	P	
51	**V**	1	**-0.155**	ug/l	-0.16	3.4	5000	45	P	
52	**Cr**	1	**1.189**	ug/l	1.19	3.9	5000	45	P	
55	**Mn**	1	**0.753**	ug/l	0.75	6.3	5000	45	P	
57	**Fe**	1	**49820.000**	ug/l	49,820.00	1.4	500000	74	A	
59	**Co**	1	**0.015**	ug/l	0.01	35.2	5000	45	P	
60	**Ni**	1	**0.309**	ug/l	0.31	4.5	5000	74	P	
63	**Cu**	1	**0.049**	ug/l	0.05	13.5	5000	74	P	
66	**Zn**	1	**0.413**	ug/l	0.41	13.0	5000	74	P	
75	**As**	1	**0.014**	ug/l	0.01	33.8	5000	74	P	
78	**Se**	1	**0.132**	ug/l	0.13	36.7	5000	74	P	
88	**Sr**	1	**-0.917**	ug/l	-0.92	4.5	5000	74	P	
95	**Mo**	1	**460.500**	ug/l	460.50	1.7	5000	103	A	
109	**Ag**	1	**0.023**	ug/l	0.02	22.9	200	103	P	
111	**Cd**	1	**0.080**	ug/l	0.08	58.9	5000	103	P	
118	**Sn**	1	**0.097**	ug/l	0.10	11.1	5000	103	P	
123	**Sb**	1	**0.143**	ug/l	0.14	9.4	5000	103	P	
135	**Ba**	1	**0.092**	ug/l	0.09	22.1	5000	103	P	
200	**Hg**	1	**0.028**	ug/l	0.03	19.7	50	209	P	
205	**Tl**	1	**0.104**	ug/l	0.10	10.4	5000	103	P	
208	**Pb**	1	**0.023**	ug/l	0.02	60.8	5000	209	P	
238	**U**	1	**0.003**	ug/l	0.00	33.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	159685	0.23	174500	**91.5**	30	-	125	
45	Sc	1	2049278	1.99	2091000	**98.0**	30	-	125	
74	Ge	1	4336537	1.06	4536000	**95.6**	30	-	125	
103	Rh	1	5371568	1.01	6076000	**88.4**	30	-	125	
165	Ho	1	2444601	0.63	2580000	**94.8**	30	-	125	
175	Lu	1	2033491	0.72	2136000	**95.2**	30	-	125	
209	Bi	1	2285424	3.51	2616000	**87.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\015SMPL.D\015SMPL.D#
Date Acquired: Sep 27 2011 08:58 am Acq. Method: 00He_ALL.M
Sample Name: ICSAB Vial Number: 1102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.002**	ug/l	0.00	58.2	5000	6	P	
23	**Na**	1	**51590.000**	ug/l	51,590.00	2.1	500000	45	A	
24	**Mg**	1	**20350.000**	ug/l	20,350.00	0.7	500000	45	A	
27	**Al**	1	**19620.000**	ug/l	19,620.00	0.4	500000	45	A	
31	**P**	1	**21390.000**	ug/l	21,390.00	2.8	500000	45	A	
39	**K**	1	**20100.000**	ug/l	20,100.00	2.0	500000	45	A	
44	**Ca**	1	**60080.000**	ug/l	60,080.00	1.2	500000	45	A	
47	**Ti**	1	**409.300**	ug/l	409.30	1.3	5000	45	P	
51	**V**	1	**40.320**	ug/l	40.32	2.2	5000	45	P	
52	**Cr**	1	**40.650**	ug/l	40.65	2.3	5000	45	P	
55	**Mn**	1	**41.040**	ug/l	41.04	2.2	5000	45	P	
57	**Fe**	1	**49680.000**	ug/l	49,680.00	0.7	500000	74	A	
59	**Co**	1	**40.160**	ug/l	40.16	1.4	5000	45	P	
60	**Ni**	1	**41.720**	ug/l	41.72	1.5	5000	74	P	
63	**Cu**	1	**40.990**	ug/l	40.99	1.7	5000	74	P	
66	**Zn**	1	**21.250**	ug/l	21.25	2.5	5000	74	P	
75	**As**	1	**21.650**	ug/l	21.65	0.7	5000	74	P	
78	**Se**	1	**21.570**	ug/l	21.57	0.8	5000	74	P	
88	**Sr**	1	**-0.962**	ug/l	-0.96	3.0	5000	74	P	
95	**Mo**	1	**456.500**	ug/l	456.50	1.2	5000	103	A	
109	**Ag**	1	**10.300**	ug/l	10.30	1.1	200	103	P	
111	**Cd**	1	**21.390**	ug/l	21.39	2.4	5000	103	P	
118	**Sn**	1	**0.065**	ug/l	0.07	14.9	5000	103	P	
123	**Sb**	1	**0.145**	ug/l	0.15	8.7	5000	103	P	
135	**Ba**	1	**0.070**	ug/l	0.07	27.8	5000	103	P	
200	**Hg**	1	**0.023**	ug/l	0.02	10.3	50	209	P	
205	**Tl**	1	**0.063**	ug/l	0.06	13.7	5000	103	P	
208	**Pb**	1	**0.074**	ug/l	0.07	19.8	5000	209	P	
238	**U**	1	**0.001**	ug/l	0.00	68.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	157535	0.34	174500	**90.3**	30	-	125	
45	Sc	1	2057691	1.30	2091000	**98.4**	30	-	125	
74	Ge	1	4346975	0.84	4536000	**95.8**	30	-	125	
103	Rh	1	5432496	0.68	6076000	**89.4**	30	-	125	
165	Ho	1	2430814	0.57	2580000	**94.2**	30	-	125	
175	Lu	1	2027576	0.83	2136000	**94.9**	30	-	125	
209	Bi	1	2259814	2.78	2616000	**86.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\016SMPL.D\016SMPL.D#
Date Acquired: Sep 27 2011 09:03 am Acq. Method: 00He_ALL.M
Sample Name: 5000 PPB LDR STD Vial Number: 1201
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**5322.000**	ug/l	5,322.00	0.5	5000	6	A	Fail
23	**Na**	1	**9.028**	ug/l	9.03	24.9	500000	45	P	
24	**Mg**	1	**11.360**	ug/l	11.36	0.5	500000	45	P	
27	**Al**	1	**1.482**	ug/l	1.48	36.4	500000	45	P	
31	**P**	1	**-0.873**	ug/l	-0.87	232.4	500000	45	P	
39	**K**	1	**1.342**	ug/l	1.34	246.5	500000	45	P	
44	**Ca**	1	**4669.000**	ug/l	4,669.00	3.4	500000	45	A	
47	**Ti**	1	**5301.000**	ug/l	5,301.00	1.9	5000	45	A	Fail
51	**V**	1	**4984.000**	ug/l	4,984.00	1.5	5000	45	A	
52	**Cr**	1	**5023.000**	ug/l	5,023.00	2.6	5000	45	A	Fail
55	**Mn**	1	**5203.000**	ug/l	5,203.00	2.7	5000	45	A	Fail
57	**Fe**	1	**16.000**	ug/l	16.00	1.2	500000	74	P	
59	**Co**	1	**5114.000**	ug/l	5,114.00	2.3	5000	45	A	Fail
60	**Ni**	1	**5328.000**	ug/l	5,328.00	0.5	5000	74	A	Fail
63	**Cu**	1	**5294.000**	ug/l	5,294.00	0.6	5000	74	A	Fail
66	**Zn**	1	**5220.000**	ug/l	5,220.00	0.3	5000	74	A	Fail
75	**As**	1	**5301.000**	ug/l	5,301.00	0.6	5000	74	A	Fail
78	**Se**	1	**5147.000**	ug/l	5,147.00	0.9	5000	74	P	Fail
88	**Sr**	1	**5216.000**	ug/l	5,216.00	1.5	5000	74	A	Fail
95	**Mo**	1	**5124.000**	ug/l	5,124.00	0.8	5000	103	A	Fail
109	**Ag**	1	**0.031**	ug/l	0.03	15.1	200	103	P	
111	**Cd**	1	**5250.000**	ug/l	5,250.00	0.2	5000	103	A	Fail
118	**Sn**	1	**5305.000**	ug/l	5,305.00	0.2	5000	103	A	Fail
123	**Sb**	1	**0.173**	ug/l	0.17	7.6	5000	103	P	
135	**Ba**	1	**5284.000**	ug/l	5,284.00	0.3	5000	103	A	Fail
200	**Hg**	1	**48.920**	ug/l	48.92	2.6	50	209	P	
205	**Tl**	1	**0.269**	ug/l	0.27	3.8	5000	103	P	
208	**Pb**	1	**5137.000**	ug/l	5,137.00	1.5	5000	209	A	Fail
238	**U**	1	**5082.000**	ug/l	5,082.00	1.4	5000	209	A	Fail

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	155344	0.26	174500	**89.0**	30	-	125	
45	Sc	1	1959741	2.63	2091000	**93.7**	30	-	125	
74	Ge	1	4307990	0.56	4536000	**95.0**	30	-	125	
103	Rh	1	5749205	0.24	6076000	**94.6**	30	-	125	
165	Ho	1	2511021	1.27	2580000	**97.3**	30	-	125	
175	Lu	1	2083273	0.82	2136000	**97.5**	30	-	125	
209	Bi	1	2480349	1.76	2616000	**94.8**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

17 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\017SMPL.D\017SMPL.D#
Date Acquired: Sep 27 2011 09:07 am Acq. Method: 00He_ALL.M
Sample Name: 250 PPM (Al) Vial Number: 1204
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.241**	ug/l	0.24	8.5	5000	6	P	
23	**Na**	1	**0.954**	ug/l	0.95	159.6	500000	45	P	
24	**Mg**	1	**0.521**	ug/l	0.52	3.4	500000	45	P	
27	**Al**	1	**255900.000**	ug/l	255,900.00	1.5	500000	45	A	
31	**P**	1	**-0.221**	ug/l	-0.22	268.1	500000	45	P	
39	**K**	1	**3.197**	ug/l	3.20	52.4	500000	45	P	
44	**Ca**	1	**6.891**	ug/l	6.89	13.0	500000	45	P	
47	**Ti**	1	**1.239**	ug/l	1.24	12.0	5000	45	P	
51	**V**	1	**0.060**	ug/l	0.06	28.3	5000	45	P	
52	**Cr**	1	**0.132**	ug/l	0.13	23.1	5000	45	P	
55	**Mn**	1	**0.299**	ug/l	0.30	7.9	5000	45	P	
57	**Fe**	1	**2.892**	ug/l	2.89	3.2	500000	74	P	
59	**Co**	1	**0.144**	ug/l	0.14	9.5	5000	45	P	
60	**Ni**	1	**0.378**	ug/l	0.38	9.9	5000	74	P	
63	**Cu**	1	**0.314**	ug/l	0.31	4.4	5000	74	P	
66	**Zn**	1	**1.242**	ug/l	1.24	4.0	5000	74	P	
75	**As**	1	**0.252**	ug/l	0.25	18.1	5000	74	P	
78	**Se**	1	**0.283**	ug/l	0.28	42.8	5000	74	P	
88	**Sr**	1	**0.045**	ug/l	0.05	53.1	5000	74	P	
95	**Mo**	1	**5.544**	ug/l	5.54	14.5	5000	103	P	
109	**Ag**	1	**0.002**	ug/l	0.00	113.3	200	103	P	
111	**Cd**	1	**0.136**	ug/l	0.14	16.5	5000	103	P	
118	**Sn**	1	**5.521**	ug/l	5.52	8.9	5000	103	P	
123	**Sb**	1	**0.018**	ug/l	0.02	43.6	5000	103	P	
135	**Ba**	1	**1.001**	ug/l	1.00	14.2	5000	103	P	
200	**Hg**	1	**0.315**	ug/l	0.31	1.0	50	209	P	
205	**Tl**	1	**0.076**	ug/l	0.08	8.8	5000	103	P	
208	**Pb**	1	**0.199**	ug/l	0.20	2.1	5000	209	P	
238	**U**	1	**0.515**	ug/l	0.51	9.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	163184	1.95	174500	**93.5**	30	-	125	
45	Sc	1	1938638	1.74	2091000	**92.7**	30	-	125	
74	Ge	1	4163754	0.12	4536000	**91.8**	30	-	125	
103	Rh	1	5317051	0.64	6076000	**87.5**	30	-	125	
165	Ho	1	2431818	1.03	2580000	**94.3**	30	-	125	
175	Lu	1	2003976	1.19	2136000	**93.8**	30	-	125	
209	Bi	1	2339150	0.91	2616000	**89.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\018SMPL.D\018SMPL.D#
Date Acquired: Sep 27 2011 09:11 am Acq. Method: 00He_ALL.M
Sample Name: 250 PPM (Ca, Fe, Mg, K, P, Na) Vial Number: 1205
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.146**	ug/l	0.15	14.1	5000	6	P	
23	**Na**	1	**255100.000**	ug/l	255,100.00	2.6	500000	45	A	
24	**Mg**	1	**248300.000**	ug/l	248,300.00	2.1	500000	45	A	
27	**Al**	1	**47.440**	ug/l	47.44	3.8	500000	45	P	
31	**P**	1	**259400.000**	ug/l	259,400.00	1.6	500000	45	A	
39	**K**	1	**248900.000**	ug/l	248,900.00	0.7	500000	45	A	
44	**Ca**	1	**245700.000**	ug/l	245,700.00	1.8	500000	45	A	
47	**Ti**	1	**65.690**	ug/l	65.69	2.2	5000	45	P	
51	**V**	1	**0.381**	ug/l	0.38	3.0	5000	45	P	
52	**Cr**	1	**2.559**	ug/l	2.56	2.8	5000	45	P	
55	**Mn**	1	**16.340**	ug/l	16.34	2.7	5000	45	P	
57	**Fe**	1	**245300.000**	ug/l	245,300.00	1.1	500000	74	A	
59	**Co**	1	**3.538**	ug/l	3.54	2.6	5000	45	P	
60	**Ni**	1	**4.686**	ug/l	4.69	1.0	5000	74	P	
63	**Cu**	1	**1.867**	ug/l	1.87	3.4	5000	74	P	
66	**Zn**	1	**4.048**	ug/l	4.05	3.9	5000	74	P	
75	**As**	1	**0.884**	ug/l	0.88	4.0	5000	74	P	
78	**Se**	1	**0.317**	ug/l	0.32	23.0	5000	74	P	
88	**Sr**	1	**-14.960**	ug/l	-14.96	0.7	5000	74	P	
95	**Mo**	1	**2.149**	ug/l	2.15	13.6	5000	103	P	
109	**Ag**	1	**0.050**	ug/l	0.05	9.7	200	103	P	
111	**Cd**	1	**0.729**	ug/l	0.73	3.5	5000	103	P	
118	**Sn**	1	**1.703**	ug/l	1.70	11.7	5000	103	P	
123	**Sb**	1	**1.187**	ug/l	1.19	1.7	5000	103	P	
135	**Ba**	1	**2.900**	ug/l	2.90	2.5	5000	103	P	
200	**Hg**	1	**0.250**	ug/l	0.25	7.1	50	209	P	
205	**Tl**	1	**0.073**	ug/l	0.07	6.0	5000	103	P	
208	**Pb**	1	**0.728**	ug/l	0.73	3.7	5000	209	P	
238	**U**	1	**0.129**	ug/l	0.13	9.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	143317	1.14	174500	**82.1**	30 - 125	
45	Sc	1	1800552	1.48	2091000	**86.1**	30 - 125	
74	Ge	1	3687577	0.53	4536000	**81.3**	30 - 125	
103	Rh	1	4498020	0.78	6076000	**74.0**	30 - 125	
165	Ho	1	2037475	0.55	2580000	**79.0**	30 - 125	
175	Lu	1	1691901	0.79	2136000	**79.2**	30 - 125	
209	Bi	1	1833624	1.64	2616000	**70.1**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\023SMPL.D\023SMPL.D#
Date Acquired: Sep 27 2011 09:33 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.390**	ug/l	51.39	1.2	5000	6	P	
23	**Na**	1	**4807.000**	ug/l	4,807.00	2.4	500000	45	A	
24	**Mg**	1	**4836.000**	ug/l	4,836.00	0.2	500000	45	A	
27	**Al**	1	**475.000**	ug/l	475.00	2.1	500000	45	P	
31	**P**	1	**4705.000**	ug/l	4,705.00	2.2	500000	45	P	
39	**K**	1	**4896.000**	ug/l	4,896.00	0.1	500000	45	A	
44	**Ca**	1	**4922.000**	ug/l	4,922.00	1.3	500000	45	P	
47	**Ti**	1	**49.880**	ug/l	49.88	0.4	5000	45	P	
51	**V**	1	**48.830**	ug/l	48.83	1.5	5000	45	P	
52	**Cr**	1	**48.420**	ug/l	48.42	1.2	5000	45	P	
55	**Mn**	1	**50.130**	ug/l	50.13	1.6	5000	45	P	
57	**Fe**	1	**4900.000**	ug/l	4,900.00	1.8	500000	74	A	
59	**Co**	1	**49.140**	ug/l	49.14	1.8	5000	45	P	
60	**Ni**	1	**49.740**	ug/l	49.74	2.3	5000	74	P	
63	**Cu**	1	**50.180**	ug/l	50.18	2.4	5000	74	P	
66	**Zn**	1	**50.730**	ug/l	50.73	1.6	5000	74	P	
75	**As**	1	**49.740**	ug/l	49.74	1.5	5000	74	P	
78	**Se**	1	**49.020**	ug/l	49.02	1.9	5000	74	P	
88	**Sr**	1	**50.060**	ug/l	50.06	1.6	5000	74	P	
95	**Mo**	1	**49.900**	ug/l	49.90	0.3	5000	103	P	
109	**Ag**	1	**49.400**	ug/l	49.40	0.5	200	103	P	
111	**Cd**	1	**50.640**	ug/l	50.64	1.0	5000	103	P	
118	**Sn**	1	**50.800**	ug/l	50.80	0.6	5000	103	P	
123	**Sb**	1	**50.310**	ug/l	50.31	0.3	5000	103	P	
135	**Ba**	1	**51.050**	ug/l	51.05	1.1	5000	103	P	
200	**Hg**	1	**2.503**	ug/l	2.50	3.9	50	209	P	
205	**Tl**	1	**50.540**	ug/l	50.54	2.2	5000	103	A	
208	**Pb**	1	**49.480**	ug/l	49.48	1.8	5000	209	P	
238	**U**	1	**50.470**	ug/l	50.47	1.7	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	146375	0.56	174500	**83.9**	30	-	125	
45	Sc	1	2004946	1.69	2091000	**95.9**	30	-	125	
74	Ge	1	4403881	1.45	4536000	**97.1**	30	-	125	
103	Rh	1	5830394	0.45	6076000	**96.0**	30	-	125	
165	Ho	1	2619382	1.92	2580000	**101.5**	30	-	125	
175	Lu	1	2175867	1.18	2136000	**101.9**	30	-	125	
209	Bi	1	2581062	1.40	2616000	**98.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\024SMPL.D\024SMPL.D#
Date Acquired: Sep 27 2011 09:38 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.037**	ug/l	0.04	18.6	5000	6	P	
23	**Na**	1	**-1.685**	ug/l	-1.69	98.5	500000	45	P	
24	**Mg**	1	**0.376**	ug/l	0.38	5.4	500000	45	P	
27	**Al**	1	**-0.428**	ug/l	-0.43	68.9	500000	45	P	
31	**P**	1	**-2.442**	ug/l	-2.44	24.2	500000	45	P	
39	**K**	1	**-4.878**	ug/l	-4.88	37.0	500000	45	P	
44	**Ca**	1	**-1.098**	ug/l	-1.10	61.2	500000	45	P	
47	**Ti**	1	**0.064**	ug/l	0.06	17.7	5000	45	P	
51	**V**	1	**-0.030**	ug/l	-0.03	38.2	5000	45	P	
52	**Cr**	1	**-0.016**	ug/l	-0.02	45.9	5000	45	P	
55	**Mn**	1	**-0.018**	ug/l	-0.02	48.9	5000	45	P	
57	**Fe**	1	**1.265**	ug/l	1.27	36.5	500000	74	P	
59	**Co**	1	**0.029**	ug/l	0.03	27.4	5000	45	P	
60	**Ni**	1	**-0.035**	ug/l	-0.03	30.4	5000	74	P	
63	**Cu**	1	**-0.022**	ug/l	-0.02	30.0	5000	74	P	
66	**Zn**	1	**-0.014**	ug/l	-0.01	204.7	5000	74	P	
75	**As**	1	**0.002**	ug/l	0.00	719.5	5000	74	P	
78	**Se**	1	**0.021**	ug/l	0.02	58.7	5000	74	P	
88	**Sr**	1	**-0.003**	ug/l	0.00	93.5	5000	74	P	
95	**Mo**	1	**0.131**	ug/l	0.13	25.2	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	544.8	200	103	P	
111	**Cd**	1	**-0.001**	ug/l	0.00	2044.5	5000	103	P	
118	**Sn**	1	**0.309**	ug/l	0.31	11.2	5000	103	P	
123	**Sb**	1	**0.021**	ug/l	0.02	40.1	5000	103	P	
135	**Ba**	1	**0.005**	ug/l	0.00	304.0	5000	103	P	
200	**Hg**	1	**0.047**	ug/l	0.05	8.4	50	209	P	
205	**Tl**	1	**0.199**	ug/l	0.20	1.1	5000	103	P	
208	**Pb**	1	**-0.007**	ug/l	-0.01	206.3	5000	209	P	
238	**U**	1	**0.016**	ug/l	0.02	3.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	150478	1.21	174500	**86.2**	30	-	125	
45	Sc	1	2014595	1.93	2091000	**96.3**	30	-	125	
74	Ge	1	4470995	1.08	4536000	**98.6**	30	-	125	
103	Rh	1	6063201	2.23	6076000	**99.8**	30	-	125	
165	Ho	1	2597141	0.63	2580000	**100.7**	30	-	125	
175	Lu	1	2186533	0.84	2136000	**102.4**	30	-	125	
209	Bi	1	2670762	2.25	2616000	**102.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\025SMPL.D\025SMPL.D#
Date Acquired: Sep 27 2011 09:42 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-96039/12-A Vial Number: 2101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.030**	ug/l	0.30	62.8	5000	6	P	
23	**Na**	1	**-1.356**	ug/l	-13.56	64.5	500000	45	P	
24	**Mg**	1	**0.642**	ug/l	6.42	6.0	500000	45	P	
27	**Al**	1	**-3.620**	ug/l	-36.20	3.7	500000	45	P	
31	**P**	1	**-4.064**	ug/l	-40.64	39.5	500000	45	P	
39	**K**	1	**-3.844**	ug/l	-38.44	43.4	500000	45	P	
44	**Ca**	1	**-3.460**	ug/l	-34.60	6.4	500000	45	P	
47	**Ti**	1	**0.139**	ug/l	1.39	13.8	5000	45	P	
51	**V**	1	**-0.020**	ug/l	-0.20	72.6	5000	45	P	
52	**Cr**	1	**-0.002**	ug/l	-0.02	673.5	5000	45	P	
55	**Mn**	1	**0.002**	ug/l	0.02	416.6	5000	45	P	
57	**Fe**	1	**1.932**	ug/l	19.32	22.2	500000	74	P	
59	**Co**	1	**0.033**	ug/l	0.33	2.3	5000	45	P	
60	**Ni**	1	**0.078**	ug/l	0.78	20.1	5000	74	P	
63	**Cu**	1	**0.085**	ug/l	0.85	37.9	5000	74	P	
66	**Zn**	1	**0.073**	ug/l	0.73	17.3	5000	74	P	
75	**As**	1	**0.021**	ug/l	0.21	12.6	5000	74	P	
78	**Se**	1	**-0.036**	ug/l	-0.36	184.7	5000	74	P	
88	**Sr**	1	**0.032**	ug/l	0.32	26.3	5000	74	P	
95	**Mo**	1	**0.065**	ug/l	0.65	46.4	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.01	196.2	200	103	P	
111	**Cd**	1	**-0.003**	ug/l	-0.03	159.4	5000	103	P	
118	**Sn**	1	**0.245**	ug/l	2.45	20.0	5000	103	P	
123	**Sb**	1	**0.010**	ug/l	0.10	32.7	5000	103	P	
135	**Ba**	1	**0.044**	ug/l	0.44	22.6	5000	103	P	
200	**Hg**	1	**0.044**	ug/l	0.44	23.0	50	209	P	
205	**Tl**	1	**0.064**	ug/l	0.64	18.2	5000	103	P	
208	**Pb**	1	**0.002**	ug/l	0.02	628.3	5000	209	P	
238	**U**	1	**0.008**	ug/l	0.08	21.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	147997	1.52	174500	**84.8**	30	-	125	
45	Sc	1	1992222	1.49	2091000	**95.3**	30	-	125	
74	Ge	1	4429950	0.08	4536000	**97.7**	30	-	125	
103	Rh	1	6003899	1.16	6076000	**98.8**	30	-	125	
165	Ho	1	2572779	0.87	2580000	**99.7**	30	-	125	
175	Lu	1	2161039	2.07	2136000	**101.2**	30	-	125	
209	Bi	1	2704940	1.57	2616000	**103.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\026SMPL.D\026SMPL.D#
Date Acquired: Sep 27 2011 09:46 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-96039/13-A Vial Number: 2102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.093**	ug/l	104.65	1.3	5000	6	P	
23	**Na**	1	**401.800**	ug/l	20,090.00	2.6	500000	45	A	
24	**Mg**	1	**403.900**	ug/l	20,195.00	3.0	500000	45	P	
27	**Al**	1	**79.050**	ug/l	3,952.50	3.0	500000	45	P	
31	**P**	1	**372.900**	ug/l	18,645.00	2.3	500000	45	P	
39	**K**	1	**403.900**	ug/l	20,195.00	2.6	500000	45	P	
44	**Ca**	1	**407.100**	ug/l	20,355.00	2.8	500000	45	P	
47	**Ti**	1	**97.880**	ug/l	4,894.00	2.3	5000	45	P	
51	**V**	1	**19.890**	ug/l	994.50	2.6	5000	45	P	
52	**Cr**	1	**7.971**	ug/l	398.55	3.0	5000	45	P	
55	**Mn**	1	**20.730**	ug/l	1,036.50	2.1	5000	45	P	
57	**Fe**	1	**435.100**	ug/l	21,755.00	1.1	500000	74	P	
59	**Co**	1	**20.480**	ug/l	1,024.00	2.6	5000	45	P	
60	**Ni**	1	**20.580**	ug/l	1,029.00	0.5	5000	74	P	
63	**Cu**	1	**10.440**	ug/l	522.00	0.4	5000	74	P	
66	**Zn**	1	**20.630**	ug/l	1,031.50	0.8	5000	74	P	
75	**As**	1	**82.110**	ug/l	4,105.50	0.5	5000	74	P	
78	**Se**	1	**79.520**	ug/l	3,976.00	0.4	5000	74	P	
88	**Sr**	1	**0.009**	ug/l	0.45	43.8	5000	74	P	
95	**Mo**	1	**98.870**	ug/l	4,943.50	0.9	5000	103	P	
109	**Ag**	1	**12.250**	ug/l	612.50	2.0	200	103	P	
111	**Cd**	1	**2.000**	ug/l	100.00	3.6	5000	103	P	
118	**Sn**	1	**102.000**	ug/l	5,100.00	2.2	5000	103	P	
123	**Sb**	1	**58.760**	ug/l	2,938.00	1.9	5000	103	P	
135	**Ba**	1	**81.080**	ug/l	4,054.00	1.8	5000	103	P	
200	**Hg**	1	**1.014**	ug/l	50.70	4.5	50	209	P	
205	**Tl**	1	**83.260**	ug/l	4,163.00	2.9	5000	103	A	
208	**Pb**	1	**20.230**	ug/l	1,011.50	2.6	5000	209	P	
238	**U**	1	**0.005**	ug/l	0.27	21.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	146890	1.58	174500	**84.2**	30	-	125	
45	Sc	1	1992031	1.59	2091000	**95.3**	30	-	125	
74	Ge	1	4422180	0.83	4536000	**97.5**	30	-	125	
103	Rh	1	5943905	0.53	6076000	**97.8**	30	-	125	
165	Ho	1	2601017	1.91	2580000	**100.8**	30	-	125	
175	Lu	1	2167213	1.28	2136000	**101.5**	30	-	125	
209	Bi	1	2644015	1.90	2616000	**101.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\027SMPL.D\027SMPL.D#
Date Acquired: Sep 27 2011 09:51 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-96039/14-A Vial Number: 2103
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.147**	ug/l	107.35	4.0	5000	6	P	
23	**Na**	1	**397.300**	ug/l	19,865.00	2.0	500000	45	A	
24	**Mg**	1	**403.400**	ug/l	20,170.00	1.9	500000	45	P	
27	**Al**	1	**76.620**	ug/l	3,831.00	1.8	500000	45	P	
31	**P**	1	**367.000**	ug/l	18,350.00	1.9	500000	45	P	
39	**K**	1	**402.500**	ug/l	20,125.00	1.6	500000	45	P	
44	**Ca**	1	**403.700**	ug/l	20,185.00	2.2	500000	45	P	
47	**Ti**	1	**97.830**	ug/l	4,891.50	2.3	5000	45	P	
51	**V**	1	**19.810**	ug/l	990.50	1.8	5000	45	P	
52	**Cr**	1	**7.944**	ug/l	397.20	2.0	5000	45	P	
55	**Mn**	1	**20.560**	ug/l	1,028.00	1.4	5000	45	P	
57	**Fe**	1	**431.800**	ug/l	21,590.00	2.6	500000	74	P	
59	**Co**	1	**20.330**	ug/l	1,016.50	2.8	5000	45	P	
60	**Ni**	1	**20.710**	ug/l	1,035.50	1.9	5000	74	P	
63	**Cu**	1	**10.630**	ug/l	531.50	0.9	5000	74	P	
66	**Zn**	1	**20.270**	ug/l	1,013.50	0.8	5000	74	P	
75	**As**	1	**82.200**	ug/l	4,110.00	1.5	5000	74	P	
78	**Se**	1	**80.570**	ug/l	4,028.50	0.9	5000	74	P	
88	**Sr**	1	**0.013**	ug/l	0.65	24.1	5000	74	P	
95	**Mo**	1	**99.580**	ug/l	4,979.00	0.6	5000	103	P	
109	**Ag**	1	**12.190**	ug/l	609.50	1.6	200	103	P	
111	**Cd**	1	**2.146**	ug/l	107.30	1.9	5000	103	P	
118	**Sn**	1	**102.400**	ug/l	5,120.00	1.6	5000	103	P	
123	**Sb**	1	**58.910**	ug/l	2,945.50	1.0	5000	103	P	
135	**Ba**	1	**80.890**	ug/l	4,044.50	1.3	5000	103	P	
200	**Hg**	1	**1.020**	ug/l	51.00	2.5	50	209	P	
205	**Tl**	1	**83.000**	ug/l	4,150.00	1.5	5000	103	A	
208	**Pb**	1	**20.070**	ug/l	1,003.50	1.4	5000	209	P	
238	**U**	1	**0.003**	ug/l	0.13	39.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	144289	0.31	174500	**82.7**	30	-	125	
45	Sc	1	1986158	2.05	2091000	**95.0**	30	-	125	
74	Ge	1	4356480	1.25	4536000	**96.0**	30	-	125	
103	Rh	1	5954538	0.62	6076000	**98.0**	30	-	125	
165	Ho	1	2619585	1.06	2580000	**101.5**	30	-	125	
175	Lu	1	2167839	1.02	2136000	**101.5**	30	-	125	
209	Bi	1	2651887	0.65	2616000	**101.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\028SMPL.D\028SMPL.D#
Date Acquired: Sep 27 2011 09:55 am Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-96039/15-A Vial Number: 2104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.160**	ug/l	963.20	1.6	5000	6	P	
23	**Na**	1	**380.800**	ug/l	7,616.00	3.1	500000	45	A	
24	**Mg**	1	**1465.000**	ug/l	29,300.00	1.7	500000	45	A	
27	**Al**	1	**4019.000**	ug/l	80,380.00	2.4	500000	45	A	
31	**P**	1	**250.500**	ug/l	5,010.00	4.1	500000	45	P	
39	**K**	1	**1356.000**	ug/l	27,120.00	1.3	500000	45	A	
44	**Ca**	1	**3549.000**	ug/l	70,980.00	1.7	500000	45	P	
47	**Ti**	1	**115.300**	ug/l	2,306.00	0.8	5000	45	P	
51	**V**	1	**58.590**	ug/l	1,171.80	1.2	5000	45	P	
52	**Cr**	1	**48.790**	ug/l	975.80	2.1	5000	45	P	
55	**Mn**	1	**254.200**	ug/l	5,084.00	1.8	5000	45	A	
57	**Fe**	1	**7347.000**	ug/l	146,940.00	1.6	500000	74	A	
59	**Co**	1	**77.470**	ug/l	1,549.40	1.1	5000	45	A	
60	**Ni**	1	**59.530**	ug/l	1,190.60	1.6	5000	74	P	
63	**Cu**	1	**38.990**	ug/l	779.80	1.5	5000	74	P	
66	**Zn**	1	**160.900**	ug/l	3,218.00	1.2	5000	74	P	
75	**As**	1	**58.950**	ug/l	1,179.00	1.3	5000	74	P	
78	**Se**	1	**113.100**	ug/l	2,262.00	0.7	5000	74	P	
88	**Sr**	1	**60.100**	ug/l	1,202.00	1.0	5000	74	P	
95	**Mo**	1	**48.700**	ug/l	974.00	2.1	5000	103	P	
109	**Ag**	1	**26.720**	ug/l	534.40	1.8	200	103	P	
111	**Cd**	1	**59.330**	ug/l	1,186.60	2.4	5000	103	P	
118	**Sn**	1	**72.670**	ug/l	1,453.40	1.7	5000	103	P	
123	**Sb**	1	**115.500**	ug/l	2,310.00	2.5	5000	103	P	
135	**Ba**	1	**173.300**	ug/l	3,466.00	2.2	5000	103	P	
200	**Hg**	1	**8.563**	ug/l	171.26	0.3	50	209	P	
205	**Tl**	1	**96.530**	ug/l	1,930.60	2.4	5000	103	A	
208	**Pb**	1	**86.400**	ug/l	1,728.00	0.3	5000	209	A	
238	**U**	1	**0.547**	ug/l	10.95	2.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	142665	1.39	174500	**81.8**	30	-	125	
45	Sc	1	1951691	1.90	2091000	**93.3**	30	-	125	
74	Ge	1	4346277	1.53	4536000	**95.8**	30	-	125	
103	Rh	1	5834249	1.86	6076000	**96.0**	30	-	125	
165	Ho	1	2611222	1.79	2580000	**101.2**	30	-	125	
175	Lu	1	2154356	2.08	2136000	**100.9**	30	-	125	
209	Bi	1	2599574	0.55	2616000	**99.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\029SMPL.D\029SMPL.D#
Date Acquired: Sep 27 2011 09:59 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.400**	ug/l	51.40	0.6	5000	6	P	
23	**Na**	1	**4809.000**	ug/l	4,809.00	2.4	500000	45	A	
24	**Mg**	1	**4799.000**	ug/l	4,799.00	2.4	500000	45	A	
27	**Al**	1	**470.500**	ug/l	470.50	1.6	500000	45	P	
31	**P**	1	**4778.000**	ug/l	4,778.00	1.9	500000	45	P	
39	**K**	1	**4948.000**	ug/l	4,948.00	1.2	500000	45	A	
44	**Ca**	1	**4988.000**	ug/l	4,988.00	1.9	500000	45	P	
47	**Ti**	1	**50.160**	ug/l	50.16	1.3	5000	45	P	
51	**V**	1	**48.940**	ug/l	48.94	1.6	5000	45	P	
52	**Cr**	1	**48.760**	ug/l	48.76	1.8	5000	45	P	
55	**Mn**	1	**50.730**	ug/l	50.73	2.0	5000	45	P	
57	**Fe**	1	**4963.000**	ug/l	4,963.00	1.0	500000	74	A	
59	**Co**	1	**49.920**	ug/l	49.92	1.5	5000	45	P	
60	**Ni**	1	**49.570**	ug/l	49.57	0.9	5000	74	P	
63	**Cu**	1	**50.070**	ug/l	50.07	0.6	5000	74	P	
66	**Zn**	1	**50.740**	ug/l	50.74	1.0	5000	74	P	
75	**As**	1	**49.950**	ug/l	49.95	0.6	5000	74	P	
78	**Se**	1	**49.600**	ug/l	49.60	1.1	5000	74	P	
88	**Sr**	1	**50.260**	ug/l	50.26	1.0	5000	74	P	
95	**Mo**	1	**49.080**	ug/l	49.08	1.1	5000	103	P	
109	**Ag**	1	**48.410**	ug/l	48.41	1.2	200	103	P	
111	**Cd**	1	**50.030**	ug/l	50.03	1.3	5000	103	P	
118	**Sn**	1	**49.680**	ug/l	49.68	1.5	5000	103	P	
123	**Sb**	1	**50.000**	ug/l	50.00	1.4	5000	103	P	
135	**Ba**	1	**50.690**	ug/l	50.69	1.9	5000	103	P	
200	**Hg**	1	**2.537**	ug/l	2.54	2.6	50	209	P	
205	**Tl**	1	**50.470**	ug/l	50.47	4.3	5000	103	A	
208	**Pb**	1	**49.350**	ug/l	49.35	1.5	5000	209	P	
238	**U**	1	**49.690**	ug/l	49.69	0.3	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	143268	1.59	174500	**82.1**	30	-	125	
45	Sc	1	1973078	1.32	2091000	**94.4**	30	-	125	
74	Ge	1	4383793	0.80	4536000	**96.6**	30	-	125	
103	Rh	1	5881731	1.12	6076000	**96.8**	30	-	125	
165	Ho	1	2573049	0.82	2580000	**99.7**	30	-	125	
175	Lu	1	2164921	1.17	2136000	**101.4**	30	-	125	
209	Bi	1	2557922	0.73	2616000	**97.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\030SMPL.D\030SMPL.D#
Date Acquired: Sep 27 2011 10:04 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.011**	ug/l	0.01	74.1	5000	6	P	
23	**Na**	1	**-0.885**	ug/l	-0.88	156.9	500000	45	P	
24	**Mg**	1	**0.157**	ug/l	0.16	12.8	500000	45	P	
27	**Al**	1	**-0.249**	ug/l	-0.25	19.4	500000	45	P	
31	**P**	1	**-4.892**	ug/l	-4.89	27.0	500000	45	P	
39	**K**	1	**-3.707**	ug/l	-3.71	69.1	500000	45	P	
44	**Ca**	1	**-1.583**	ug/l	-1.58	19.2	500000	45	P	
47	**Ti**	1	**0.040**	ug/l	0.04	12.8	5000	45	P	
51	**V**	1	**-0.024**	ug/l	-0.02	68.1	5000	45	P	
52	**Cr**	1	**-0.016**	ug/l	-0.02	68.7	5000	45	P	
55	**Mn**	1	**-0.023**	ug/l	-0.02	43.3	5000	45	P	
57	**Fe**	1	**0.883**	ug/l	0.88	36.9	500000	74	P	
59	**Co**	1	**0.018**	ug/l	0.02	3.6	5000	45	P	
60	**Ni**	1	**-0.033**	ug/l	-0.03	17.8	5000	74	P	
63	**Cu**	1	**-0.023**	ug/l	-0.02	17.6	5000	74	P	
66	**Zn**	1	**-0.030**	ug/l	-0.03	66.8	5000	74	P	
75	**As**	1	**-0.004**	ug/l	0.00	372.4	5000	74	P	
78	**Se**	1	**0.082**	ug/l	0.08	14.7	5000	74	P	
88	**Sr**	1	**0.001**	ug/l	0.00	442.6	5000	74	P	
95	**Mo**	1	**0.130**	ug/l	0.13	26.6	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	123.5	200	103	P	
111	**Cd**	1	**0.003**	ug/l	0.00	214.1	5000	103	P	
118	**Sn**	1	**0.296**	ug/l	0.30	11.9	5000	103	P	
123	**Sb**	1	**0.053**	ug/l	0.05	37.3	5000	103	P	
135	**Ba**	1	**0.016**	ug/l	0.02	51.1	5000	103	P	
200	**Hg**	1	**0.060**	ug/l	0.06	10.3	50	209	P	
205	**Tl**	1	**0.350**	ug/l	0.35	8.5	5000	103	P	
208	**Pb**	1	**-0.003**	ug/l	0.00	295.4	5000	209	P	
238	**U**	1	**0.012**	ug/l	0.01	27.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	147764	1.95	174500	**84.7**	30	-	125	
45	Sc	1	1984524	2.01	2091000	**94.9**	30	-	125	
74	Ge	1	4429277	0.49	4536000	**97.6**	30	-	125	
103	Rh	1	5927526	0.71	6076000	**97.6**	30	-	125	
165	Ho	1	2627081	0.62	2580000	**101.8**	30	-	125	
175	Lu	1	2161676	1.16	2136000	**101.2**	30	-	125	
209	Bi	1	2655819	0.97	2616000	**101.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\031SMPL.D\031SMPL.D#
Date Acquired: Sep 27 2011 10:08 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-35-E SD Vial Number: 2201
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.073**	ug/l	3.65	6.3	5000	6	P	
23	**Na**	1	**119.600**	ug/l	5,980.00	6.4	500000	45	P	
24	**Mg**	1	**1889.000**	ug/l	94,450.00	3.4	500000	45	A	
27	**Al**	1	**5459.000**	ug/l	272,950.00	3.0	500000	45	A	
31	**P**	1	**291.300**	ug/l	14,565.00	3.7	500000	45	P	
39	**K**	1	**465.000**	ug/l	23,250.00	2.4	500000	45	A	
44	**Ca**	1	**728.800**	ug/l	36,440.00	2.7	500000	45	P	
47	**Ti**	1	**244.300**	ug/l	12,215.00	2.8	5000	45	P	
51	**V**	1	**24.040**	ug/l	1,202.00	3.6	5000	45	P	
52	**Cr**	1	**3.406**	ug/l	170.30	3.3	5000	45	P	
55	**Mn**	1	**418.800**	ug/l	20,940.00	1.4	5000	45	A	
57	**Fe**	1	**12870.000**	ug/l	643,500.00	1.5	500000	74	A	
59	**Co**	1	**5.809**	ug/l	290.45	3.4	5000	45	P	
60	**Ni**	1	**2.575**	ug/l	128.75	1.1	5000	74	P	
63	**Cu**	1	**42.580**	ug/l	2,129.00	0.5	5000	74	P	
66	**Zn**	1	**50.850**	ug/l	2,542.50	1.9	5000	74	P	
75	**As**	1	**71.300**	ug/l	3,565.00	0.3	5000	74	P	
78	**Se**	1	**0.457**	ug/l	22.86	10.8	5000	74	P	
88	**Sr**	1	**4.480**	ug/l	224.00	2.2	5000	74	P	
95	**Mo**	1	**2.230**	ug/l	111.50	2.0	5000	103	P	
109	**Ag**	1	**0.591**	ug/l	29.57	3.6	200	103	P	
111	**Cd**	1	**0.250**	ug/l	12.49	16.5	5000	103	P	
118	**Sn**	1	**0.523**	ug/l	26.13	1.0	5000	103	P	
123	**Sb**	1	**2.532**	ug/l	126.60	4.1	5000	103	P	
135	**Ba**	1	**16.010**	ug/l	800.50	1.7	5000	103	P	
200	**Hg**	1	**0.097**	ug/l	4.84	0.8	50	209	P	
205	**Tl**	1	**0.254**	ug/l	12.68	5.7	5000	103	P	
208	**Pb**	1	**27.710**	ug/l	1,385.50	4.0	5000	209	P	
238	**U**	1	**0.538**	ug/l	26.88	3.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	154626	1.02	174500	**88.6**	30	-	125	
45	Sc	1	2020641	3.05	2091000	**96.6**	30	-	125	
74	Ge	1	4427750	0.43	4536000	**97.6**	30	-	125	
103	Rh	1	5873080	0.55	6076000	**96.7**	30	-	125	
165	Ho	1	2589108	0.11	2580000	**100.4**	30	-	125	
175	Lu	1	2138573	0.66	2136000	**100.1**	30	-	125	
209	Bi	1	2559395	2.66	2616000	**97.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\032SMPL.D\032SMPL.D#
Date Acquired: Sep 27 2011 10:12 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-35-E Vial Number: 2202
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.253**	ug/l	2.53	5.2	5000	6	P	
23	**Na**	1	**596.900**	ug/l	5,969.00	1.6	500000	45	A	
24	**Mg**	1	**8755.000**	ug/l	87,550.00	0.3	500000	45	A	
27	**Al**	1	**26210.000**	ug/l	262,100.00	1.4	500000	45	A	
31	**P**	1	**1401.000**	ug/l	14,010.00	0.9	500000	45	P	
39	**K**	1	**2204.000**	ug/l	22,040.00	0.9	500000	45	A	
44	**Ca**	1	**3556.000**	ug/l	35,560.00	1.0	500000	45	P	
47	**Ti**	1	**1203.000**	ug/l	12,030.00	1.3	5000	45	P	
51	**V**	1	**122.200**	ug/l	1,222.00	1.4	5000	45	A	
52	**Cr**	1	**16.860**	ug/l	168.60	1.2	5000	45	P	
55	**Mn**	1	**2036.000**	ug/l	20,360.00	0.5	5000	45	A	
57	**Fe**	1	**62990.000**	ug/l	629,900.00	1.4	500000	74	A	
59	**Co**	1	**28.560**	ug/l	285.60	1.3	5000	45	P	
60	**Ni**	1	**12.660**	ug/l	126.60	1.4	5000	74	P	
63	**Cu**	1	**212.400**	ug/l	2,124.00	1.2	5000	74	A	
66	**Zn**	1	**249.400**	ug/l	2,494.00	2.0	5000	74	P	
75	**As**	1	**356.300**	ug/l	3,563.00	1.6	5000	74	P	
78	**Se**	1	**1.795**	ug/l	17.95	9.2	5000	74	P	
88	**Sr**	1	**22.320**	ug/l	223.20	1.2	5000	74	P	
95	**Mo**	1	**11.300**	ug/l	113.00	0.9	5000	103	P	
109	**Ag**	1	**2.915**	ug/l	29.15	0.2	200	103	P	
111	**Cd**	1	**1.208**	ug/l	12.08	2.6	5000	103	P	
118	**Sn**	1	**1.934**	ug/l	19.34	1.7	5000	103	P	
123	**Sb**	1	**12.580**	ug/l	125.80	0.9	5000	103	P	
135	**Ba**	1	**80.690**	ug/l	806.90	0.9	5000	103	P	
200	**Hg**	1	**0.254**	ug/l	2.54	4.0	50	209	P	
205	**Tl**	1	**0.485**	ug/l	4.85	5.5	5000	103	P	
208	**Pb**	1	**135.200**	ug/l	1,352.00	1.1	5000	209	A	
238	**U**	1	**2.612**	ug/l	26.12	1.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	140795	0.22	174500	**80.7**	30	-	125	
45	Sc	1	1969499	0.79	2091000	**94.2**	30	-	125	
74	Ge	1	4274885	1.64	4536000	**94.2**	30	-	125	
103	Rh	1	5627466	0.73	6076000	**92.6**	30	-	125	
165	Ho	1	2577596	0.15	2580000	**99.9**	30	-	125	
175	Lu	1	2129066	0.66	2136000	**99.7**	30	-	125	
209	Bi	1	2570589	0.93	2616000	**98.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\033SMPL.D\033SMPL.D#
Date Acquired: Sep 27 2011 10:17 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-35-F DU Vial Number: 2203
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.283**	ug/l	2.83	22.2	5000	6	P	
23	**Na**	1	**619.800**	ug/l	6,198.00	1.4	500000	45	A	
24	**Mg**	1	**8993.000**	ug/l	89,930.00	0.9	500000	45	A	
27	**Al**	1	**26340.000**	ug/l	263,400.00	2.6	500000	45	A	
31	**P**	1	**1417.000**	ug/l	14,170.00	1.9	500000	45	P	
39	**K**	1	**2260.000**	ug/l	22,600.00	3.5	500000	45	A	
44	**Ca**	1	**3583.000**	ug/l	35,830.00	2.1	500000	45	P	
47	**Ti**	1	**1210.000**	ug/l	12,100.00	2.5	5000	45	P	
51	**V**	1	**125.800**	ug/l	1,258.00	2.7	5000	45	A	
52	**Cr**	1	**17.060**	ug/l	170.60	3.1	5000	45	P	
55	**Mn**	1	**2048.000**	ug/l	20,480.00	1.7	5000	45	A	
57	**Fe**	1	**63640.000**	ug/l	636,400.00	0.9	500000	74	A	
59	**Co**	1	**28.930**	ug/l	289.30	2.8	5000	45	P	
60	**Ni**	1	**12.690**	ug/l	126.90	0.3	5000	74	P	
63	**Cu**	1	**214.400**	ug/l	2,144.00	1.3	5000	74	A	
66	**Zn**	1	**250.800**	ug/l	2,508.00	0.7	5000	74	P	
75	**As**	1	**359.500**	ug/l	3,595.00	0.6	5000	74	P	
78	**Se**	1	**1.625**	ug/l	16.25	2.9	5000	74	P	
88	**Sr**	1	**22.550**	ug/l	225.50	0.9	5000	74	P	
95	**Mo**	1	**11.300**	ug/l	113.00	1.1	5000	103	P	
109	**Ag**	1	**2.929**	ug/l	29.29	2.1	200	103	P	
111	**Cd**	1	**1.193**	ug/l	11.93	3.9	5000	103	P	
118	**Sn**	1	**1.917**	ug/l	19.17	3.4	5000	103	P	
123	**Sb**	1	**12.750**	ug/l	127.50	1.7	5000	103	P	
135	**Ba**	1	**80.710**	ug/l	807.10	0.0	5000	103	P	
200	**Hg**	1	**0.253**	ug/l	2.53	5.3	50	209	P	
205	**Tl**	1	**0.470**	ug/l	4.70	2.5	5000	103	P	
208	**Pb**	1	**135.100**	ug/l	1,351.00	1.6	5000	209	A	
238	**U**	1	**2.615**	ug/l	26.15	2.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	142795	0.69	174500	**81.8**	30	-	125	
45	Sc	1	1953474	2.33	2091000	**93.4**	30	-	125	
74	Ge	1	4233718	0.78	4536000	**93.3**	30	-	125	
103	Rh	1	5624349	0.98	6076000	**92.6**	30	-	125	
165	Ho	1	2553945	2.12	2580000	**99.0**	30	-	125	
175	Lu	1	2122121	1.21	2136000	**99.4**	30	-	125	
209	Bi	1	2585008	1.45	2616000	**98.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\034SMPL.D\034SMPL.D#
Date Acquired: Sep 27 2011 10:21 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-35-G MS Vial Number: 2204
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.430**	ug/l	121.50	3.1	5000	6	P	
23	**Na**	1	**713.900**	ug/l	35,695.00	1.9	500000	45	A	
24	**Mg**	1	**2735.000**	ug/l	136,750.00	2.1	500000	45	A	
27	**Al**	1	**6738.000**	ug/l	336,900.00	2.5	500000	45	A	
31	**P**	1	**733.700**	ug/l	36,685.00	3.5	500000	45	P	
39	**K**	1	**1090.000**	ug/l	54,500.00	2.6	500000	45	A	
44	**Ca**	1	**1532.000**	ug/l	76,600.00	1.7	500000	45	P	
47	**Ti**	1	**412.000**	ug/l	20,600.00	1.8	5000	45	P	
51	**V**	1	**50.340**	ug/l	2,517.00	2.1	5000	45	P	
52	**Cr**	1	**12.980**	ug/l	649.00	1.6	5000	45	P	
55	**Mn**	1	**413.800**	ug/l	20,690.00	0.6	5000	45	A	
57	**Fe**	1	**14650.000**	ug/l	732,500.00	1.4	500000	74	A	
59	**Co**	1	**30.720**	ug/l	1,536.00	2.1	5000	45	P	
60	**Ni**	1	**25.830**	ug/l	1,291.50	0.5	5000	74	P	
63	**Cu**	1	**59.010**	ug/l	2,950.50	1.0	5000	74	P	
66	**Zn**	1	**61.360**	ug/l	3,068.00	0.7	5000	74	P	
75	**As**	1	**163.000**	ug/l	8,150.00	1.3	5000	74	P	
78	**Se**	1	**89.710**	ug/l	4,485.50	0.9	5000	74	P	
88	**Sr**	1	**6.666**	ug/l	333.30	0.9	5000	74	P	
95	**Mo**	1	**114.700**	ug/l	5,735.00	0.9	5000	103	P	
109	**Ag**	1	**13.970**	ug/l	698.50	0.8	200	103	P	
111	**Cd**	1	**2.536**	ug/l	126.80	3.6	5000	103	P	
118	**Sn**	1	**104.900**	ug/l	5,245.00	0.3	5000	103	P	
123	**Sb**	1	**38.700**	ug/l	1,935.00	1.1	5000	103	P	
135	**Ba**	1	**112.300**	ug/l	5,615.00	0.4	5000	103	P	
200	**Hg**	1	**1.160**	ug/l	58.00	3.8	50	209	P	
205	**Tl**	1	**95.590**	ug/l	4,779.50	1.2	5000	103	A	
208	**Pb**	1	**51.600**	ug/l	2,580.00	2.7	5000	209	P	
238	**U**	1	**0.556**	ug/l	27.81	3.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	153255	1.69	174500	**87.8**	30	-	125	
45	Sc	1	1987338	1.89	2091000	**95.0**	30	-	125	
74	Ge	1	4425061	0.19	4536000	**97.6**	30	-	125	
103	Rh	1	5809920	0.89	6076000	**95.6**	30	-	125	
165	Ho	1	2541532	1.58	2580000	**98.5**	30	-	125	
175	Lu	1	2152310	1.70	2136000	**100.8**	30	-	125	
209	Bi	1	2560046	2.37	2616000	**97.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\035SMPL.D\035SMPL.D#
Date Acquired: Sep 27 2011 10:25 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-35-H MSD Vial Number: 2205
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.437**	ug/l	121.85	0.8	5000	6	P	
23	**Na**	1	**691.600**	ug/l	34,580.00	2.9	500000	45	A	
24	**Mg**	1	**2585.000**	ug/l	129,250.00	1.9	500000	45	A	
27	**Al**	1	**6802.000**	ug/l	340,100.00	2.7	500000	45	A	
31	**P**	1	**742.800**	ug/l	37,140.00	0.3	500000	45	P	
39	**K**	1	**989.300**	ug/l	49,465.00	1.9	500000	45	A	
44	**Ca**	1	**1483.000**	ug/l	74,150.00	1.3	500000	45	P	
47	**Ti**	1	**393.800**	ug/l	19,690.00	1.2	5000	45	P	
51	**V**	1	**49.130**	ug/l	2,456.50	0.8	5000	45	P	
52	**Cr**	1	**12.800**	ug/l	640.00	0.6	5000	45	P	
55	**Mn**	1	**383.600**	ug/l	19,180.00	1.3	5000	45	A	
57	**Fe**	1	**14950.000**	ug/l	747,500.00	2.1	500000	74	A	
59	**Co**	1	**28.650**	ug/l	1,432.50	0.3	5000	45	P	
60	**Ni**	1	**26.880**	ug/l	1,344.00	0.8	5000	74	P	
63	**Cu**	1	**60.970**	ug/l	3,048.50	1.0	5000	74	P	
66	**Zn**	1	**62.860**	ug/l	3,143.00	1.1	5000	74	P	
75	**As**	1	**174.100**	ug/l	8,705.00	0.6	5000	74	P	
78	**Se**	1	**92.430**	ug/l	4,621.50	0.4	5000	74	P	
88	**Sr**	1	**6.734**	ug/l	336.70	0.5	5000	74	P	
95	**Mo**	1	**116.300**	ug/l	5,815.00	1.3	5000	103	P	
109	**Ag**	1	**14.420**	ug/l	721.00	1.9	200	103	P	
111	**Cd**	1	**2.664**	ug/l	133.20	2.8	5000	103	P	
118	**Sn**	1	**106.800**	ug/l	5,340.00	1.6	5000	103	P	
123	**Sb**	1	**38.590**	ug/l	1,929.50	1.1	5000	103	P	
135	**Ba**	1	**113.300**	ug/l	5,665.00	0.8	5000	103	P	
200	**Hg**	1	**1.223**	ug/l	61.15	5.0	50	209	P	
205	**Tl**	1	**96.400**	ug/l	4,820.00	0.1	5000	103	A	
208	**Pb**	1	**52.070**	ug/l	2,603.50	3.8	5000	209	P	
238	**U**	1	**0.668**	ug/l	33.42	4.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	152673	0.79	174500	**87.5**	30	-	125	
45	Sc	1	2046402	0.94	2091000	**97.9**	30	-	125	
74	Ge	1	4412485	0.86	4536000	**97.3**	30	-	125	
103	Rh	1	5849850	0.52	6076000	**96.3**	30	-	125	
165	Ho	1	2582870	1.27	2580000	**100.1**	30	-	125	
175	Lu	1	2157004	0.94	2136000	**101.0**	30	-	125	
209	Bi	1	2555836	2.42	2616000	**97.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\036SMPL.D\036SMPL.D#
Date Acquired: Sep 27 2011 10:30 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-35-E PDS Vial Number: 2206
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.350**	ug/l	117.50	1.9	5000	6	P	
23	**Na**	1	**581.300**	ug/l	29,065.00	1.2	500000	45	A	
24	**Mg**	1	**2260.000**	ug/l	113,000.00	1.1	500000	45	A	
27	**Al**	1	**5352.000**	ug/l	267,600.00	2.3	500000	45	A	
31	**P**	1	**697.400**	ug/l	34,870.00	3.7	500000	45	P	
39	**K**	1	**926.500**	ug/l	46,325.00	1.2	500000	45	A	
44	**Ca**	1	**1163.000**	ug/l	58,150.00	1.9	500000	45	P	
47	**Ti**	1	**347.300**	ug/l	17,365.00	1.9	5000	45	P	
51	**V**	1	**45.400**	ug/l	2,270.00	2.7	5000	45	P	
52	**Cr**	1	**12.140**	ug/l	607.00	2.6	5000	45	P	
55	**Mn**	1	**438.000**	ug/l	21,900.00	1.2	5000	45	A	
57	**Fe**	1	**12950.000**	ug/l	647,500.00	1.9	500000	74	A	
59	**Co**	1	**28.070**	ug/l	1,403.50	3.0	5000	45	P	
60	**Ni**	1	**25.430**	ug/l	1,271.50	2.7	5000	74	P	
63	**Cu**	1	**51.960**	ug/l	2,598.00	2.4	5000	74	P	
66	**Zn**	1	**70.690**	ug/l	3,534.50	2.0	5000	74	P	
75	**As**	1	**160.500**	ug/l	8,025.00	2.5	5000	74	P	
78	**Se**	1	**90.450**	ug/l	4,522.50	2.0	5000	74	P	
88	**Sr**	1	**4.362**	ug/l	218.10	1.3	5000	74	P	
95	**Mo**	1	**114.100**	ug/l	5,705.00	1.0	5000	103	P	
109	**Ag**	1	**13.850**	ug/l	692.50	1.9	200	103	P	
111	**Cd**	1	**2.526**	ug/l	126.30	3.1	5000	103	P	
118	**Sn**	1	**111.500**	ug/l	5,575.00	2.0	5000	103	P	
123	**Sb**	1	**69.310**	ug/l	3,465.50	1.7	5000	103	P	
135	**Ba**	1	**107.200**	ug/l	5,360.00	0.9	5000	103	P	
200	**Hg**	1	**1.223**	ug/l	61.15	4.2	50	209	P	
205	**Tl**	1	**92.970**	ug/l	4,648.50	0.6	5000	103	A	
208	**Pb**	1	**50.220**	ug/l	2,511.00	4.7	5000	209	P	
238	**U**	1	**0.521**	ug/l	26.04	4.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	152887	1.56	174500	**87.6**	30	-	125	
45	Sc	1	2035533	1.87	2091000	**97.3**	30	-	125	
74	Ge	1	4504628	1.61	4536000	**99.3**	30	-	125	
103	Rh	1	5929080	0.45	6076000	**97.6**	30	-	125	
165	Ho	1	2568879	1.67	2580000	**99.6**	30	-	125	
175	Lu	1	2158757	0.50	2136000	**101.1**	30	-	125	
209	Bi	1	2552438	3.02	2616000	**97.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\037SMPL.D\037SMPL.D#
Date Acquired: Sep 27 2011 10:34 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-36-B Vial Number: 2207
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.414**	ug/l	4.14	13.4	5000	6	P	
23	**Na**	1	**185.400**	ug/l	1,854.00	2.3	500000	45	P	
24	**Mg**	1	**3993.000**	ug/l	39,930.00	1.2	500000	45	A	
27	**Al**	1	**35840.000**	ug/l	358,400.00	1.7	500000	45	A	
31	**P**	1	**755.800**	ug/l	7,558.00	2.3	500000	45	P	
39	**K**	1	**746.600**	ug/l	7,466.00	4.4	500000	45	A	
44	**Ca**	1	**533.700**	ug/l	5,337.00	0.9	500000	45	P	
47	**Ti**	1	**1075.000**	ug/l	10,750.00	1.4	5000	45	P	
51	**V**	1	**77.610**	ug/l	776.10	1.0	5000	45	P	
52	**Cr**	1	**38.480**	ug/l	384.80	1.5	5000	45	P	
55	**Mn**	1	**284.000**	ug/l	2,840.00	2.2	5000	45	A	
57	**Fe**	1	**35840.000**	ug/l	358,400.00	1.4	500000	74	A	
59	**Co**	1	**7.832**	ug/l	78.32	1.9	5000	45	P	
60	**Ni**	1	**16.290**	ug/l	162.90	1.3	5000	74	P	
63	**Cu**	1	**79.900**	ug/l	799.00	0.6	5000	74	P	
66	**Zn**	1	**95.360**	ug/l	953.60	0.6	5000	74	P	
75	**As**	1	**160.900**	ug/l	1,609.00	1.2	5000	74	P	
78	**Se**	1	**1.715**	ug/l	17.15	5.5	5000	74	P	
88	**Sr**	1	**5.147**	ug/l	51.47	1.9	5000	74	P	
95	**Mo**	1	**2.754**	ug/l	27.54	1.7	5000	103	P	
109	**Ag**	1	**0.975**	ug/l	9.75	3.8	200	103	P	
111	**Cd**	1	**0.574**	ug/l	5.74	8.3	5000	103	P	
118	**Sn**	1	**2.865**	ug/l	28.65	4.7	5000	103	P	
123	**Sb**	1	**4.298**	ug/l	42.98	2.6	5000	103	P	
135	**Ba**	1	**36.590**	ug/l	365.90	1.8	5000	103	P	
200	**Hg**	1	**0.393**	ug/l	3.93	4.7	50	209	P	
205	**Tl**	1	**0.473**	ug/l	4.73	4.3	5000	103	P	
208	**Pb**	1	**91.850**	ug/l	918.50	1.7	5000	209	A	
238	**U**	1	**1.056**	ug/l	10.56	2.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	145810	2.27	174500	**83.6**	30	-	125	
45	Sc	1	1969935	1.13	2091000	**94.2**	30	-	125	
74	Ge	1	4315173	0.73	4536000	**95.1**	30	-	125	
103	Rh	1	5675798	0.79	6076000	**93.4**	30	-	125	
165	Ho	1	2575511	1.69	2580000	**99.8**	30	-	125	
175	Lu	1	2156597	2.01	2136000	**101.0**	30	-	125	
209	Bi	1	2565398	1.42	2616000	**98.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\038SMPL.D\038SMPL.D#
Date Acquired: Sep 27 2011 10:38 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-37-B Vial Number: 2208
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.867**	ug/l	8.67	2.5	5000	6	P	
23	**Na**	1	**429.100**	ug/l	4,291.00	0.9	500000	45	A	
24	**Mg**	1	**12020.000**	ug/l	120,200.00	2.7	500000	45	A	
27	**Al**	1	**26800.000**	ug/l	268,000.00	3.4	500000	45	A	
31	**P**	1	**1376.000**	ug/l	13,760.00	2.6	500000	45	P	
39	**K**	1	**4004.000**	ug/l	40,040.00	1.2	500000	45	A	
44	**Ca**	1	**6062.000**	ug/l	60,620.00	1.3	500000	45	P	
47	**Ti**	1	**695.300**	ug/l	6,953.00	1.3	5000	45	P	
51	**V**	1	**69.740**	ug/l	697.40	1.4	5000	45	P	
52	**Cr**	1	**25.800**	ug/l	258.00	1.5	5000	45	P	
55	**Mn**	1	**7660.000**	ug/l	76,600.00	2.1	5000	45	A	Fail
57	**Fe**	1	**119100.000**	ug/l	1,191,000.00	0.9	500000	74	A	
59	**Co**	1	**46.560**	ug/l	465.60	1.7	5000	45	P	
60	**Ni**	1	**42.440**	ug/l	424.40	1.4	5000	74	P	
63	**Cu**	1	**301.300**	ug/l	3,013.00	0.9	5000	74	A	
66	**Zn**	1	**4608.000**	ug/l	46,080.00	1.7	5000	74	A	
75	**As**	1	**9278.000**	ug/l	92,780.00	0.8	5000	74	A	Fail
78	**Se**	1	**3.169**	ug/l	31.69	1.6	5000	74	P	
88	**Sr**	1	**20.470**	ug/l	204.70	1.3	5000	74	P	
95	**Mo**	1	**2.086**	ug/l	20.86	0.8	5000	103	P	
109	**Ag**	1	**34.700**	ug/l	347.00	0.3	200	103	P	
111	**Cd**	1	**26.530**	ug/l	265.30	2.2	5000	103	P	
118	**Sn**	1	**3.008**	ug/l	30.08	2.8	5000	103	P	
123	**Sb**	1	**29.630**	ug/l	296.30	1.0	5000	103	P	
135	**Ba**	1	**129.600**	ug/l	1,296.00	0.7	5000	103	P	
200	**Hg**	1	**0.610**	ug/l	6.10	2.4	50	209	P	
205	**Tl**	1	**0.635**	ug/l	6.35	5.7	5000	103	P	
208	**Pb**	1	**4892.000**	ug/l	48,920.00	0.6	5000	209	A	
238	**U**	1	**0.194**	ug/l	1.94	1.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	140332	1.65	174500	**80.4**	30	-	125	
45	Sc	1	1937721	1.50	2091000	**92.7**	30	-	125	
74	Ge	1	4162728	0.53	4536000	**91.8**	30	-	125	
103	Rh	1	5492368	0.67	6076000	**90.4**	30	-	125	
165	Ho	1	2483964	0.74	2580000	**96.3**	30	-	125	
175	Lu	1	2086364	0.92	2136000	**97.7**	30	-	125	
209	Bi	1	3232516	0.07	2616000	**123.6**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\039SMPL.D\039SMPL.D#
Date Acquired: Sep 27 2011 10:42 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-38-B Vial Number: 2209
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.947**	ug/l	9.47	4.9	5000	6	P	
23	**Na**	1	**211.500**	ug/l	2,115.00	2.6	500000	45	P	
24	**Mg**	1	**10580.000**	ug/l	105,800.00	1.1	500000	45	A	
27	**Al**	1	**34040.000**	ug/l	340,400.00	0.7	500000	45	A	
31	**P**	1	**1316.000**	ug/l	13,160.00	2.1	500000	45	P	
39	**K**	1	**3085.000**	ug/l	30,850.00	0.8	500000	45	A	
44	**Ca**	1	**2243.000**	ug/l	22,430.00	0.6	500000	45	P	
47	**Ti**	1	**699.900**	ug/l	6,999.00	1.2	5000	45	P	
51	**V**	1	**80.240**	ug/l	802.40	2.0	5000	45	P	
52	**Cr**	1	**21.800**	ug/l	218.00	2.1	5000	45	P	
55	**Mn**	1	**8736.000**	ug/l	87,360.00	1.2	5000	45	A	Fail
57	**Fe**	1	**90330.000**	ug/l	903,300.00	1.2	500000	74	A	
59	**Co**	1	**50.060**	ug/l	500.60	0.9	5000	45	P	
60	**Ni**	1	**31.760**	ug/l	317.60	1.2	5000	74	P	
63	**Cu**	1	**174.200**	ug/l	1,742.00	2.2	5000	74	A	
66	**Zn**	1	**1886.000**	ug/l	18,860.00	0.3	5000	74	A	
75	**As**	1	**4040.000**	ug/l	40,400.00	0.4	5000	74	A	
78	**Se**	1	**2.589**	ug/l	25.89	2.7	5000	74	P	
88	**Sr**	1	**9.920**	ug/l	99.20	0.8	5000	74	P	
95	**Mo**	1	**3.007**	ug/l	30.07	1.4	5000	103	P	
109	**Ag**	1	**7.987**	ug/l	79.87	0.5	200	103	P	
111	**Cd**	1	**12.100**	ug/l	121.00	3.3	5000	103	P	
118	**Sn**	1	**2.431**	ug/l	24.31	2.3	5000	103	P	
123	**Sb**	1	**9.383**	ug/l	93.83	1.9	5000	103	P	
135	**Ba**	1	**81.640**	ug/l	816.40	1.0	5000	103	P	
200	**Hg**	1	**0.726**	ug/l	7.26	2.6	50	209	P	
205	**Tl**	1	**0.569**	ug/l	5.69	6.3	5000	103	P	
208	**Pb**	1	**1978.000**	ug/l	19,780.00	0.6	5000	209	A	
238	**U**	1	**0.273**	ug/l	2.73	1.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	140138	0.58	174500	**80.3**	30	-	125	
45	Sc	1	1942672	0.49	2091000	**92.9**	30	-	125	
74	Ge	1	4188821	0.74	4536000	**92.3**	30	-	125	
103	Rh	1	5536190	0.15	6076000	**91.1**	30	-	125	
165	Ho	1	2515408	1.86	2580000	**97.5**	30	-	125	
175	Lu	1	2100583	1.17	2136000	**98.3**	30	-	125	
209	Bi	1	2482462	0.47	2616000	**94.9**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\040SMPL.D\040SMPL.D#
Date Acquired: Sep 27 2011 10:47 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-39-B Vial Number: 2210
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.227**	ug/l	2.27	9.3	5000	6	P	
23	**Na**	1	**439.400**	ug/l	4,394.00	2.6	500000	45	A	
24	**Mg**	1	**10430.000**	ug/l	104,300.00	2.2	500000	45	A	
27	**Al**	1	**35470.000**	ug/l	354,700.00	2.1	500000	45	A	
31	**P**	1	**1365.000**	ug/l	13,650.00	2.3	500000	45	P	
39	**K**	1	**2891.000**	ug/l	28,910.00	2.7	500000	45	A	
44	**Ca**	1	**1730.000**	ug/l	17,300.00	1.7	500000	45	P	
47	**Ti**	1	**2004.000**	ug/l	20,040.00	1.6	5000	45	P	
51	**V**	1	**163.800**	ug/l	1,638.00	2.9	5000	45	A	
52	**Cr**	1	**19.500**	ug/l	195.00	1.7	5000	45	P	
55	**Mn**	1	**1700.000**	ug/l	17,000.00	1.6	5000	45	A	
57	**Fe**	1	**84060.000**	ug/l	840,600.00	1.4	500000	74	A	
59	**Co**	1	**28.720**	ug/l	287.20	2.8	5000	45	P	
60	**Ni**	1	**9.100**	ug/l	91.00	2.0	5000	74	P	
63	**Cu**	1	**228.600**	ug/l	2,286.00	2.3	5000	74	A	
66	**Zn**	1	**122.600**	ug/l	1,226.00	0.8	5000	74	P	
75	**As**	1	**309.800**	ug/l	3,098.00	0.2	5000	74	P	
78	**Se**	1	**3.618**	ug/l	36.18	3.1	5000	74	P	
88	**Sr**	1	**12.760**	ug/l	127.60	0.7	5000	74	P	
95	**Mo**	1	**14.250**	ug/l	142.50	2.5	5000	103	P	
109	**Ag**	1	**1.190**	ug/l	11.90	1.1	200	103	P	
111	**Cd**	1	**0.831**	ug/l	8.31	4.1	5000	103	P	
118	**Sn**	1	**2.070**	ug/l	20.70	2.7	5000	103	P	
123	**Sb**	1	**7.119**	ug/l	71.19	0.8	5000	103	P	
135	**Ba**	1	**80.520**	ug/l	805.20	0.6	5000	103	P	
200	**Hg**	1	**0.219**	ug/l	2.19	2.7	50	209	P	
205	**Tl**	1	**0.568**	ug/l	5.68	1.0	5000	103	P	
208	**Pb**	1	**91.220**	ug/l	912.20	2.1	5000	209	A	
238	**U**	1	**3.602**	ug/l	36.02	2.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	142169	1.01	174500	**81.5**	30	-	125	
45	Sc	1	1952122	2.02	2091000	**93.4**	30	-	125	
74	Ge	1	4193478	0.82	4536000	**92.4**	30	-	125	
103	Rh	1	5593745	0.88	6076000	**92.1**	30	-	125	
165	Ho	1	2530850	0.47	2580000	**98.1**	30	-	125	
175	Lu	1	2110053	0.24	2136000	**98.8**	30	-	125	
209	Bi	1	2509645	2.20	2616000	**95.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\041SMPL.D\041SMPL.D#
Date Acquired: Sep 27 2011 10:51 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.900**	ug/l	50.90	0.8	5000	6	P	
23	**Na**	1	**4706.000**	ug/l	4,706.00	0.9	500000	45	A	
24	**Mg**	1	**4687.000**	ug/l	4,687.00	1.0	500000	45	A	
27	**Al**	1	**467.700**	ug/l	467.70	0.5	500000	45	P	
31	**P**	1	**4709.000**	ug/l	4,709.00	0.8	500000	45	P	
39	**K**	1	**4860.000**	ug/l	4,860.00	0.8	500000	45	A	
44	**Ca**	1	**4915.000**	ug/l	4,915.00	0.5	500000	45	P	
47	**Ti**	1	**49.760**	ug/l	49.76	1.0	5000	45	P	
51	**V**	1	**48.410**	ug/l	48.41	1.1	5000	45	P	
52	**Cr**	1	**48.470**	ug/l	48.47	0.8	5000	45	P	
55	**Mn**	1	**50.570**	ug/l	50.57	0.4	5000	45	P	
57	**Fe**	1	**5004.000**	ug/l	5,004.00	2.6	500000	74	A	
59	**Co**	1	**49.250**	ug/l	49.25	1.2	5000	45	P	
60	**Ni**	1	**49.450**	ug/l	49.45	1.3	5000	74	P	
63	**Cu**	1	**49.510**	ug/l	49.51	1.0	5000	74	P	
66	**Zn**	1	**50.890**	ug/l	50.89	1.8	5000	74	P	
75	**As**	1	**49.540**	ug/l	49.54	1.4	5000	74	P	
78	**Se**	1	**49.290**	ug/l	49.29	1.4	5000	74	P	
88	**Sr**	1	**49.910**	ug/l	49.91	1.1	5000	74	P	
95	**Mo**	1	**48.890**	ug/l	48.89	2.0	5000	103	P	
109	**Ag**	1	**48.290**	ug/l	48.29	2.2	200	103	P	
111	**Cd**	1	**49.970**	ug/l	49.97	1.1	5000	103	P	
118	**Sn**	1	**50.060**	ug/l	50.06	1.7	5000	103	P	
123	**Sb**	1	**49.930**	ug/l	49.93	1.4	5000	103	P	
135	**Ba**	1	**50.820**	ug/l	50.82	1.8	5000	103	P	
200	**Hg**	1	**2.435**	ug/l	2.44	2.2	50	209	P	
205	**Tl**	1	**49.740**	ug/l	49.74	1.1	5000	103	A	
208	**Pb**	1	**48.920**	ug/l	48.92	1.9	5000	209	P	
238	**U**	1	**49.610**	ug/l	49.61	1.8	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	140357	1.01	174500	**80.4**	30	-	125	
45	Sc	1	1988377	0.94	2091000	**95.1**	30	-	125	
74	Ge	1	4391395	1.62	4536000	**96.8**	30	-	125	
103	Rh	1	5862257	1.37	6076000	**96.5**	30	-	125	
165	Ho	1	2594429	1.21	2580000	**100.6**	30	-	125	
175	Lu	1	2154160	0.96	2136000	**100.9**	30	-	125	
209	Bi	1	2583917	1.12	2616000	**98.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\042SMPL.D\042SMPL.D#
Date Acquired: Sep 27 2011 10:55 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.009**	ug/l	0.01	125.9	5000	6	P	
23	**Na**	1	**-4.550**	ug/l	-4.55	23.6	500000	45	P	
24	**Mg**	1	**0.187**	ug/l	0.19	16.1	500000	45	P	
27	**Al**	1	**0.036**	ug/l	0.04	781.6	500000	45	P	
31	**P**	1	**-4.845**	ug/l	-4.85	21.3	500000	45	P	
39	**K**	1	**-2.162**	ug/l	-2.16	88.9	500000	45	P	
44	**Ca**	1	**-2.230**	ug/l	-2.23	13.8	500000	45	P	
47	**Ti**	1	**0.225**	ug/l	0.23	9.5	5000	45	P	
51	**V**	1	**-0.021**	ug/l	-0.02	65.5	5000	45	P	
52	**Cr**	1	**0.185**	ug/l	0.18	2.8	5000	45	P	
55	**Mn**	1	**0.317**	ug/l	0.32	8.6	5000	45	P	
57	**Fe**	1	**4.153**	ug/l	4.15	14.0	500000	74	P	
59	**Co**	1	**0.005**	ug/l	0.01	50.1	5000	45	P	
60	**Ni**	1	**0.037**	ug/l	0.04	42.4	5000	74	P	
63	**Cu**	1	**-0.029**	ug/l	-0.03	25.1	5000	74	P	
66	**Zn**	1	**-0.004**	ug/l	0.00	767.2	5000	74	P	
75	**As**	1	**0.079**	ug/l	0.08	34.5	5000	74	P	
78	**Se**	1	**0.075**	ug/l	0.07	77.0	5000	74	P	
88	**Sr**	1	**-0.001**	ug/l	0.00	342.0	5000	74	P	
95	**Mo**	1	**0.084**	ug/l	0.08	36.4	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	238.3	200	103	P	
111	**Cd**	1	**0.012**	ug/l	0.01	92.0	5000	103	P	
118	**Sn**	1	**0.212**	ug/l	0.21	23.4	5000	103	P	
123	**Sb**	1	**0.046**	ug/l	0.05	27.5	5000	103	P	
135	**Ba**	1	**0.011**	ug/l	0.01	130.7	5000	103	P	
200	**Hg**	1	**0.034**	ug/l	0.03	17.3	50	209	P	
205	**Tl**	1	**0.245**	ug/l	0.24	7.3	5000	103	P	
208	**Pb**	1	**0.013**	ug/l	0.01	99.3	5000	209	P	
238	**U**	1	**0.013**	ug/l	0.01	16.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	142129	1.04	174500	**81.4**	30	-	125	
45	Sc	1	1966413	1.42	2091000	**94.0**	30	-	125	
74	Ge	1	4425860	0.97	4536000	**97.6**	30	-	125	
103	Rh	1	5980496	0.90	6076000	**98.4**	30	-	125	
165	Ho	1	2611406	1.82	2580000	**101.2**	30	-	125	
175	Lu	1	2197351	1.26	2136000	**102.9**	30	-	125	
209	Bi	1	2673426	1.11	2616000	**102.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\043SMPL.D\043SMPL.D#
Date Acquired: Sep 27 2011 11:00 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-40-B Vial Number: 2301
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.552**	ug/l	5.52	3.5	5000	6	P	
23	**Na**	1	**86.570**	ug/l	865.70	4.1	500000	45	P	
24	**Mg**	1	**15300.000**	ug/l	153,000.00	1.6	500000	45	A	
27	**Al**	1	**25660.000**	ug/l	256,600.00	1.6	500000	45	A	
31	**P**	1	**1446.000**	ug/l	14,460.00	2.1	500000	45	P	
39	**K**	1	**3058.000**	ug/l	30,580.00	1.9	500000	45	A	
44	**Ca**	1	**1638.000**	ug/l	16,380.00	1.7	500000	45	P	
47	**Ti**	1	**236.300**	ug/l	2,363.00	0.8	5000	45	P	
51	**V**	1	**67.930**	ug/l	679.30	2.5	5000	45	P	
52	**Cr**	1	**30.010**	ug/l	300.10	2.4	5000	45	P	
55	**Mn**	1	**4245.000**	ug/l	42,450.00	1.0	5000	45	A	
57	**Fe**	1	**161800.000**	ug/l	1,618,000.00	1.0	500000	74	A	
59	**Co**	1	**26.640**	ug/l	266.40	1.9	5000	45	P	
60	**Ni**	1	**39.430**	ug/l	394.30	1.8	5000	74	P	
63	**Cu**	1	**297.900**	ug/l	2,979.00	1.2	5000	74	A	
66	**Zn**	1	**3115.000**	ug/l	31,150.00	0.5	5000	74	A	
75	**As**	1	**4494.000**	ug/l	44,940.00	0.8	5000	74	A	
78	**Se**	1	**2.045**	ug/l	20.45	6.4	5000	74	P	
88	**Sr**	1	**5.101**	ug/l	51.01	2.1	5000	74	P	
95	**Mo**	1	**1.821**	ug/l	18.21	2.0	5000	103	P	
109	**Ag**	1	**15.680**	ug/l	156.80	1.0	200	103	P	
111	**Cd**	1	**5.817**	ug/l	58.17	2.2	5000	103	P	
118	**Sn**	1	**2.896**	ug/l	28.96	3.1	5000	103	P	
123	**Sb**	1	**6.913**	ug/l	69.13	1.3	5000	103	P	
135	**Ba**	1	**62.920**	ug/l	629.20	1.0	5000	103	P	
200	**Hg**	1	**1.137**	ug/l	11.37	2.7	50	209	P	
205	**Tl**	1	**0.390**	ug/l	3.90	2.8	5000	103	P	
208	**Pb**	1	**1787.000**	ug/l	17,870.00	0.4	5000	209	A	
238	**U**	1	**0.224**	ug/l	2.24	4.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	134340	0.41	174500	**77.0**	30	-	125	
45	Sc	1	1866194	1.58	2091000	**89.2**	30	-	125	
74	Ge	1	4074747	0.67	4536000	**89.8**	30	-	125	
103	Rh	1	5411248	1.48	6076000	**89.1**	30	-	125	
165	Ho	1	2467375	0.51	2580000	**95.6**	30	-	125	
175	Lu	1	2061418	2.79	2136000	**96.5**	30	-	125	
209	Bi	1	2718273	0.16	2616000	**103.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\044SMPL.D\044SMPL.D#
Date Acquired: Sep 27 2011 11:04 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-41-B Vial Number: 2302
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.124**	ug/l	11.24	1.3	5000	6	P	
23	**Na**	1	**156.000**	ug/l	1,560.00	8.3	500000	45	P	
24	**Mg**	1	**9315.000**	ug/l	93,150.00	2.9	500000	45	A	
27	**Al**	1	**38520.000**	ug/l	385,200.00	2.8	500000	45	A	
31	**P**	1	**2002.000**	ug/l	20,020.00	3.0	500000	45	P	
39	**K**	1	**1936.000**	ug/l	19,360.00	5.0	500000	45	A	
44	**Ca**	1	**3369.000**	ug/l	33,690.00	2.5	500000	45	P	
47	**Ti**	1	**586.600**	ug/l	5,866.00	2.2	5000	45	P	
51	**V**	1	**89.130**	ug/l	891.30	2.5	5000	45	P	
52	**Cr**	1	**26.970**	ug/l	269.70	2.3	5000	45	P	
55	**Mn**	1	**8851.000**	ug/l	88,510.00	3.3	5000	45	A	Fail
57	**Fe**	1	**127900.000**	ug/l	1,279,000.00	1.0	500000	74	A	
59	**Co**	1	**79.530**	ug/l	795.30	3.0	5000	45	A	
60	**Ni**	1	**37.330**	ug/l	373.30	0.4	5000	74	P	
63	**Cu**	1	**518.200**	ug/l	5,182.00	1.3	5000	74	A	
66	**Zn**	1	**3751.000**	ug/l	37,510.00	1.2	5000	74	A	
75	**As**	1	**5040.000**	ug/l	50,400.00	1.3	5000	74	A	Fail
78	**Se**	1	**2.867**	ug/l	28.67	1.3	5000	74	P	
88	**Sr**	1	**11.970**	ug/l	119.70	1.0	5000	74	P	
95	**Mo**	1	**1.726**	ug/l	17.26	1.4	5000	103	P	
109	**Ag**	1	**19.090**	ug/l	190.90	1.5	200	103	P	
111	**Cd**	1	**30.800**	ug/l	308.00	2.3	5000	103	P	
118	**Sn**	1	**2.568**	ug/l	25.68	3.9	5000	103	P	
123	**Sb**	1	**10.670**	ug/l	106.70	3.0	5000	103	P	
135	**Ba**	1	**101.600**	ug/l	1,016.00	1.9	5000	103	P	
200	**Hg**	1	**0.878**	ug/l	8.78	1.1	50	209	P	
205	**Tl**	1	**0.474**	ug/l	4.74	6.1	5000	103	P	
208	**Pb**	1	**2519.000**	ug/l	25,190.00	0.6	5000	209	A	
238	**U**	1	**0.368**	ug/l	3.68	3.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133945	0.81	174500	**76.8**	30	-	125	
45	Sc	1	1874904	2.20	2091000	**89.7**	30	-	125	
74	Ge	1	4077857	1.13	4536000	**89.9**	30	-	125	
103	Rh	1	5399565	1.48	6076000	**88.9**	30	-	125	
165	Ho	1	2502408	0.47	2580000	**97.0**	30	-	125	
175	Lu	1	2057246	0.36	2136000	**96.3**	30	-	125	
209	Bi	1	2610702	0.76	2616000	**99.8**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\045SMPL.D\045SMPL.D#
Date Acquired: Sep 27 2011 11:08 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-42-B Vial Number: 2303
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.490**	ug/l	4.90	4.5	5000	6	P	
23	**Na**	1	**77.140**	ug/l	771.40	0.7	500000	45	P	
24	**Mg**	1	**13410.000**	ug/l	134,100.00	0.8	500000	45	A	
27	**Al**	1	**22880.000**	ug/l	228,800.00	2.2	500000	45	A	
31	**P**	1	**1348.000**	ug/l	13,480.00	1.7	500000	45	P	
39	**K**	1	**3438.000**	ug/l	34,380.00	1.1	500000	45	A	
44	**Ca**	1	**1563.000**	ug/l	15,630.00	1.4	500000	45	P	
47	**Ti**	1	**271.400**	ug/l	2,714.00	2.7	5000	45	P	
51	**V**	1	**62.300**	ug/l	623.00	2.6	5000	45	P	
52	**Cr**	1	**32.800**	ug/l	328.00	2.1	5000	45	P	
55	**Mn**	1	**3604.000**	ug/l	36,040.00	1.2	5000	45	A	
57	**Fe**	1	**150200.000**	ug/l	1,502,000.00	1.2	500000	74	A	
59	**Co**	1	**23.760**	ug/l	237.60	2.6	5000	45	P	
60	**Ni**	1	**33.670**	ug/l	336.70	1.3	5000	74	P	
63	**Cu**	1	**254.500**	ug/l	2,545.00	0.9	5000	74	A	
66	**Zn**	1	**2363.000**	ug/l	23,630.00	0.4	5000	74	A	
75	**As**	1	**5124.000**	ug/l	51,240.00	0.9	5000	74	A	Fail
78	**Se**	1	**1.641**	ug/l	16.41	4.0	5000	74	P	
88	**Sr**	1	**5.750**	ug/l	57.50	2.3	5000	74	P	
95	**Mo**	1	**1.305**	ug/l	13.05	1.6	5000	103	P	
109	**Ag**	1	**10.840**	ug/l	108.40	3.0	200	103	P	
111	**Cd**	1	**2.838**	ug/l	28.38	2.3	5000	103	P	
118	**Sn**	1	**2.540**	ug/l	25.40	2.1	5000	103	P	
123	**Sb**	1	**7.047**	ug/l	70.47	2.3	5000	103	P	
135	**Ba**	1	**69.170**	ug/l	691.70	2.2	5000	103	P	
200	**Hg**	1	**0.951**	ug/l	9.51	3.6	50	209	P	
205	**Tl**	1	**0.319**	ug/l	3.19	3.9	5000	103	P	
208	**Pb**	1	**1603.000**	ug/l	16,030.00	1.5	5000	209	A	
238	**U**	1	**0.164**	ug/l	1.64	11.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	132466	1.94	174500	**75.9**	30	-	125	
45	Sc	1	1863045	1.75	2091000	**89.1**	30	-	125	
74	Ge	1	4056907	0.45	4536000	**89.4**	30	-	125	
103	Rh	1	5429077	0.90	6076000	**89.4**	30	-	125	
165	Ho	1	2468759	0.68	2580000	**95.7**	30	-	125	
175	Lu	1	2067188	0.92	2136000	**96.8**	30	-	125	
209	Bi	1	2653726	1.56	2616000	**101.4**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\046SMPL.D\046SMPL.D#
Date Acquired: Sep 27 2011 11:13 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.610**	ug/l	51.61	1.2	5000	6	P	
23	**Na**	1	**4775.000**	ug/l	4,775.00	2.7	500000	45	A	
24	**Mg**	1	**4703.000**	ug/l	4,703.00	2.2	500000	45	A	
27	**Al**	1	**465.400**	ug/l	465.40	2.4	500000	45	P	
31	**P**	1	**4629.000**	ug/l	4,629.00	1.3	500000	45	P	
39	**K**	1	**4888.000**	ug/l	4,888.00	2.5	500000	45	A	
44	**Ca**	1	**4896.000**	ug/l	4,896.00	1.5	500000	45	P	
47	**Ti**	1	**49.260**	ug/l	49.26	2.1	5000	45	P	
51	**V**	1	**48.460**	ug/l	48.46	1.4	5000	45	P	
52	**Cr**	1	**48.100**	ug/l	48.10	1.1	5000	45	P	
55	**Mn**	1	**50.440**	ug/l	50.44	1.6	5000	45	P	
57	**Fe**	1	**4911.000**	ug/l	4,911.00	0.9	500000	74	A	
59	**Co**	1	**48.660**	ug/l	48.66	2.2	5000	45	P	
60	**Ni**	1	**49.070**	ug/l	49.07	0.4	5000	74	P	
63	**Cu**	1	**49.700**	ug/l	49.70	1.2	5000	74	P	
66	**Zn**	1	**50.590**	ug/l	50.59	1.1	5000	74	P	
75	**As**	1	**50.100**	ug/l	50.10	0.6	5000	74	P	
78	**Se**	1	**49.070**	ug/l	49.07	1.8	5000	74	P	
88	**Sr**	1	**50.010**	ug/l	50.01	1.1	5000	74	P	
95	**Mo**	1	**49.160**	ug/l	49.16	2.1	5000	103	P	
109	**Ag**	1	**48.790**	ug/l	48.79	2.5	200	103	P	
111	**Cd**	1	**50.100**	ug/l	50.10	2.2	5000	103	P	
118	**Sn**	1	**50.170**	ug/l	50.17	2.4	5000	103	P	
123	**Sb**	1	**50.520**	ug/l	50.52	1.9	5000	103	P	
135	**Ba**	1	**50.490**	ug/l	50.49	2.5	5000	103	P	
200	**Hg**	1	**2.454**	ug/l	2.45	1.6	50	209	P	
205	**Tl**	1	**50.290**	ug/l	50.29	4.3	5000	103	M	
208	**Pb**	1	**49.330**	ug/l	49.33	1.2	5000	209	P	
238	**U**	1	**50.130**	ug/l	50.13	0.8	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	138381	0.62	174500	**79.3**	30	-	125	
45	Sc	1	1969276	1.87	2091000	**94.2**	30	-	125	
74	Ge	1	4330341	0.67	4536000	**95.5**	30	-	125	
103	Rh	1	5765075	1.59	6076000	**94.9**	30	-	125	
165	Ho	1	2600283	1.76	2580000	**100.8**	30	-	125	
175	Lu	1	2157190	1.57	2136000	**101.0**	30	-	125	
209	Bi	1	2556158	0.68	2616000	**97.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\047SMPL.D\047SMPL.D#
Date Acquired: Sep 27 2011 11:18 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.009**	ug/l	0.01	94.1	5000	6	P	
23	**Na**	1	**-3.414**	ug/l	-3.41	11.0	500000	45	P	
24	**Mg**	1	**0.160**	ug/l	0.16	3.5	500000	45	P	
27	**Al**	1	**0.522**	ug/l	0.52	36.4	500000	45	P	
31	**P**	1	**-3.124**	ug/l	-3.12	54.5	500000	45	P	
39	**K**	1	**-1.910**	ug/l	-1.91	36.0	500000	45	P	
44	**Ca**	1	**-1.686**	ug/l	-1.69	10.0	500000	45	P	
47	**Ti**	1	**0.120**	ug/l	0.12	38.3	5000	45	P	
51	**V**	1	**-0.037**	ug/l	-0.04	31.5	5000	45	P	
52	**Cr**	1	**0.201**	ug/l	0.20	6.2	5000	45	P	
55	**Mn**	1	**0.376**	ug/l	0.38	9.5	5000	45	P	
57	**Fe**	1	**4.375**	ug/l	4.38	8.2	500000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	75.4	5000	45	P	
60	**Ni**	1	**0.027**	ug/l	0.03	91.6	5000	74	P	
63	**Cu**	1	**-0.006**	ug/l	-0.01	166.7	5000	74	P	
66	**Zn**	1	**0.019**	ug/l	0.02	146.1	5000	74	P	
75	**As**	1	**0.119**	ug/l	0.12	3.7	5000	74	P	
78	**Se**	1	**0.054**	ug/l	0.05	247.3	5000	74	P	
88	**Sr**	1	**-0.007**	ug/l	-0.01	102.8	5000	74	P	
95	**Mo**	1	**0.054**	ug/l	0.05	28.0	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	310.4	200	103	P	
111	**Cd**	1	**-0.004**	ug/l	0.00	158.7	5000	103	P	
118	**Sn**	1	**0.144**	ug/l	0.14	16.6	5000	103	P	
123	**Sb**	1	**0.033**	ug/l	0.03	30.4	5000	103	P	
135	**Ba**	1	**0.002**	ug/l	0.00	555.4	5000	103	P	
200	**Hg**	1	**0.021**	ug/l	0.02	12.2	50	209	P	
205	**Tl**	1	**0.178**	ug/l	0.18	3.8	5000	103	P	
208	**Pb**	1	**0.030**	ug/l	0.03	8.9	5000	209	P	
238	**U**	1	**0.005**	ug/l	0.01	24.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	137835	2.17	174500	**79.0**	30	-	125	
45	Sc	1	1922839	0.52	2091000	**92.0**	30	-	125	
74	Ge	1	4334357	1.42	4536000	**95.6**	30	-	125	
103	Rh	1	5895261	1.83	6076000	**97.0**	30	-	125	
165	Ho	1	2578603	0.87	2580000	**99.9**	30	-	125	
175	Lu	1	2179544	1.32	2136000	**102.0**	30	-	125	
209	Bi	1	2663711	0.91	2616000	**101.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\048SMPL.D\048SMPL.D#
Date Acquired: Sep 27 2011 11:23 am Acq. Method: 00He_ALL.M
Sample Name: MB 580-96028/21-A Vial Number: 2401
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.01	421.1	5000	6	P	
23	**Na**	1	**-4.321**	ug/l	-43.21	17.1	500000	45	P	
24	**Mg**	1	**0.576**	ug/l	5.76	24.0	500000	45	P	
27	**Al**	1	**-2.777**	ug/l	-27.77	7.1	500000	45	P	
31	**P**	1	**-4.911**	ug/l	-49.11	26.8	500000	45	P	
39	**K**	1	**-2.972**	ug/l	-29.72	28.6	500000	45	P	
44	**Ca**	1	**-4.071**	ug/l	-40.71	3.0	500000	45	P	
47	**Ti**	1	**0.168**	ug/l	1.68	14.5	5000	45	P	
51	**V**	1	**-0.023**	ug/l	-0.23	33.2	5000	45	P	
52	**Cr**	1	**0.000**	ug/l	0.00	1623.6	5000	45	P	
55	**Mn**	1	**0.331**	ug/l	3.31	2.8	5000	45	P	
57	**Fe**	1	**3.773**	ug/l	37.73	3.1	500000	74	P	
59	**Co**	1	**0.003**	ug/l	0.03	51.4	5000	45	P	
60	**Ni**	1	**0.031**	ug/l	0.31	35.7	5000	74	P	
63	**Cu**	1	**0.068**	ug/l	0.68	10.6	5000	74	P	
66	**Zn**	1	**0.065**	ug/l	0.65	37.8	5000	74	P	
75	**As**	1	**0.081**	ug/l	0.81	30.4	5000	74	P	
78	**Se**	1	**0.080**	ug/l	0.80	102.2	5000	74	P	
88	**Sr**	1	**0.024**	ug/l	0.24	20.4	5000	74	P	
95	**Mo**	1	**0.014**	ug/l	0.14	78.5	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	502.4	200	103	P	
111	**Cd**	1	**-0.014**	ug/l	-0.14	42.0	5000	103	P	
118	**Sn**	1	**0.097**	ug/l	0.97	15.9	5000	103	P	
123	**Sb**	1	**0.016**	ug/l	0.16	84.2	5000	103	P	
135	**Ba**	1	**0.052**	ug/l	0.52	38.1	5000	103	P	
200	**Hg**	1	**0.021**	ug/l	0.21	7.6	50	209	P	
205	**Tl**	1	**0.081**	ug/l	0.81	19.1	5000	103	P	
208	**Pb**	1	**0.018**	ug/l	0.18	73.4	5000	209	P	
238	**U**	1	**0.002**	ug/l	0.02	39.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	135294	1.06	174500	**77.5**	30	-	125	
45	Sc	1	1938176	1.33	2091000	**92.7**	30	-	125	
74	Ge	1	4338079	0.13	4536000	**95.6**	30	-	125	
103	Rh	1	5899114	0.82	6076000	**97.1**	30	-	125	
165	Ho	1	2595550	0.69	2580000	**100.6**	30	-	125	
175	Lu	1	2178914	1.36	2136000	**102.0**	30	-	125	
209	Bi	1	2681266	2.59	2616000	**102.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\049SMPL.D\049SMPL.D#
Date Acquired: Sep 27 2011 11:28 am Acq. Method: 00He_ALL.M
Sample Name: LCS 580-96028/22-A Vial Number: 2402
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.094**	ug/l	104.70	3.3	5000	6	P	
23	**Na**	1	**389.000**	ug/l	19,450.00	1.4	500000	45	A	
24	**Mg**	1	**393.300**	ug/l	19,665.00	0.5	500000	45	P	
27	**Al**	1	**75.190**	ug/l	3,759.50	0.9	500000	45	P	
31	**P**	1	**367.500**	ug/l	18,375.00	0.7	500000	45	P	
39	**K**	1	**398.100**	ug/l	19,905.00	1.6	500000	45	P	
44	**Ca**	1	**398.600**	ug/l	19,930.00	1.1	500000	45	P	
47	**Ti**	1	**97.310**	ug/l	4,865.50	1.1	5000	45	P	
51	**V**	1	**19.820**	ug/l	991.00	0.9	5000	45	P	
52	**Cr**	1	**7.925**	ug/l	396.25	0.8	5000	45	P	
55	**Mn**	1	**20.830**	ug/l	1,041.50	0.6	5000	45	P	
57	**Fe**	1	**425.100**	ug/l	21,255.00	2.6	500000	74	P	
59	**Co**	1	**20.290**	ug/l	1,014.50	1.5	5000	45	P	
60	**Ni**	1	**20.050**	ug/l	1,002.50	2.4	5000	74	P	
63	**Cu**	1	**10.310**	ug/l	515.50	3.0	5000	74	P	
66	**Zn**	1	**20.470**	ug/l	1,023.50	2.1	5000	74	P	
75	**As**	1	**81.610**	ug/l	4,080.50	1.4	5000	74	P	
78	**Se**	1	**79.860**	ug/l	3,993.00	0.8	5000	74	P	
88	**Sr**	1	**-0.004**	ug/l	-0.20	77.8	5000	74	P	
95	**Mo**	1	**98.130**	ug/l	4,906.50	1.8	5000	103	P	
109	**Ag**	1	**12.080**	ug/l	604.00	1.5	200	103	P	
111	**Cd**	1	**2.014**	ug/l	100.70	2.9	5000	103	P	
118	**Sn**	1	**101.000**	ug/l	5,050.00	0.9	5000	103	P	
123	**Sb**	1	**58.550**	ug/l	2,927.50	1.3	5000	103	P	
135	**Ba**	1	**81.300**	ug/l	4,065.00	1.0	5000	103	P	
200	**Hg**	1	**0.981**	ug/l	49.05	1.2	50	209	P	
205	**Tl**	1	**82.390**	ug/l	4,119.50	3.1	5000	103	A	
208	**Pb**	1	**19.950**	ug/l	997.50	1.1	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.02	60.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	132498	0.68	174500	**75.9**	30	-	125	
45	Sc	1	1929204	0.38	2091000	**92.3**	30	-	125	
74	Ge	1	4331780	1.11	4536000	**95.5**	30	-	125	
103	Rh	1	5885405	1.08	6076000	**96.9**	30	-	125	
165	Ho	1	2602539	0.91	2580000	**100.9**	30	-	125	
175	Lu	1	2178880	0.74	2136000	**102.0**	30	-	125	
209	Bi	1	2670959	0.59	2616000	**102.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\050SMPL.D\050SMPL.D#
Date Acquired: Sep 27 2011 11:34 am Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-96028/23-A Vial Number: 2403
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.043**	ug/l	102.15	2.3	5000	6	P	
23	**Na**	1	**389.900**	ug/l	19,495.00	2.9	500000	45	A	
24	**Mg**	1	**392.900**	ug/l	19,645.00	1.2	500000	45	P	
27	**Al**	1	**75.400**	ug/l	3,770.00	1.8	500000	45	P	
31	**P**	1	**362.800**	ug/l	18,140.00	3.6	500000	45	P	
39	**K**	1	**398.200**	ug/l	19,910.00	1.9	500000	45	P	
44	**Ca**	1	**402.800**	ug/l	20,140.00	0.7	500000	45	P	
47	**Ti**	1	**97.740**	ug/l	4,887.00	1.7	5000	45	P	
51	**V**	1	**19.770**	ug/l	988.50	0.7	5000	45	P	
52	**Cr**	1	**7.931**	ug/l	396.55	1.9	5000	45	P	
55	**Mn**	1	**20.880**	ug/l	1,044.00	0.2	5000	45	P	
57	**Fe**	1	**426.600**	ug/l	21,330.00	0.9	500000	74	P	
59	**Co**	1	**20.540**	ug/l	1,027.00	0.8	5000	45	P	
60	**Ni**	1	**20.120**	ug/l	1,006.00	2.3	5000	74	P	
63	**Cu**	1	**10.340**	ug/l	517.00	1.0	5000	74	P	
66	**Zn**	1	**20.380**	ug/l	1,019.00	0.6	5000	74	P	
75	**As**	1	**82.000**	ug/l	4,100.00	1.4	5000	74	P	
78	**Se**	1	**79.990**	ug/l	3,999.50	1.4	5000	74	P	
88	**Sr**	1	**-0.008**	ug/l	-0.38	140.2	5000	74	P	
95	**Mo**	1	**97.660**	ug/l	4,883.00	1.8	5000	103	P	
109	**Ag**	1	**12.090**	ug/l	604.50	1.0	200	103	P	
111	**Cd**	1	**1.991**	ug/l	99.55	2.9	5000	103	P	
118	**Sn**	1	**101.700**	ug/l	5,085.00	1.9	5000	103	P	
123	**Sb**	1	**58.680**	ug/l	2,934.00	1.2	5000	103	P	
135	**Ba**	1	**81.130**	ug/l	4,056.50	2.2	5000	103	P	
200	**Hg**	1	**0.990**	ug/l	49.52	3.0	50	209	P	
205	**Tl**	1	**84.270**	ug/l	4,213.50	4.6	5000	103	A	
208	**Pb**	1	**19.810**	ug/l	990.50	2.1	5000	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	398.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133081	2.06	174500	**76.3**	30	-	125	
45	Sc	1	1924312	0.24	2091000	**92.0**	30	-	125	
74	Ge	1	4318770	0.89	4536000	**95.2**	30	-	125	
103	Rh	1	5890066	1.27	6076000	**96.9**	30	-	125	
165	Ho	1	2630934	0.57	2580000	**102.0**	30	-	125	
175	Lu	1	2191579	1.39	2136000	**102.6**	30	-	125	
209	Bi	1	2687198	1.49	2616000	**102.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\051SMPL.D\051SMPL.D#
Date Acquired: Sep 27 2011 11:38 am Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-96028/24-A Vial Number: 2404
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.050**	ug/l	961.00	0.8	5000	6	P	
23	**Na**	1	**360.000**	ug/l	7,200.00	2.2	500000	45	A	
24	**Mg**	1	**1457.000**	ug/l	29,140.00	0.8	500000	45	A	
27	**Al**	1	**3887.000**	ug/l	77,740.00	2.0	500000	45	A	
31	**P**	1	**236.100**	ug/l	4,722.00	0.5	500000	45	P	
39	**K**	1	**1305.000**	ug/l	26,100.00	1.9	500000	45	A	
44	**Ca**	1	**3470.000**	ug/l	69,400.00	0.8	500000	45	P	
47	**Ti**	1	**116.100**	ug/l	2,322.00	4.7	5000	45	P	
51	**V**	1	**56.990**	ug/l	1,139.80	1.2	5000	45	P	
52	**Cr**	1	**47.350**	ug/l	947.00	1.2	5000	45	P	
55	**Mn**	1	**247.900**	ug/l	4,958.00	1.1	5000	45	A	
57	**Fe**	1	**7110.000**	ug/l	142,200.00	0.8	500000	74	A	
59	**Co**	1	**74.860**	ug/l	1,497.20	0.7	5000	45	A	
60	**Ni**	1	**57.880**	ug/l	1,157.60	1.1	5000	74	P	
63	**Cu**	1	**37.750**	ug/l	755.00	1.9	5000	74	P	
66	**Zn**	1	**158.200**	ug/l	3,164.00	1.4	5000	74	P	
75	**As**	1	**58.100**	ug/l	1,162.00	1.1	5000	74	P	
78	**Se**	1	**111.400**	ug/l	2,228.00	0.7	5000	74	P	
88	**Sr**	1	**59.710**	ug/l	1,194.20	0.8	5000	74	P	
95	**Mo**	1	**48.090**	ug/l	961.80	1.5	5000	103	P	
109	**Ag**	1	**26.600**	ug/l	532.00	1.8	200	103	P	
111	**Cd**	1	**59.440**	ug/l	1,188.80	2.6	5000	103	P	
118	**Sn**	1	**73.110**	ug/l	1,462.20	2.0	5000	103	P	
123	**Sb**	1	**116.200**	ug/l	2,324.00	1.5	5000	103	P	
135	**Ba**	1	**175.300**	ug/l	3,506.00	1.7	5000	103	P	
200	**Hg**	1	**8.490**	ug/l	169.80	1.9	50	209	P	
205	**Tl**	1	**96.890**	ug/l	1,937.80	2.9	5000	103	A	
208	**Pb**	1	**86.450**	ug/l	1,729.00	1.8	5000	209	A	
238	**U**	1	**0.530**	ug/l	10.60	2.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133249	1.06	174500	**76.4**	30	-	125	
45	Sc	1	1950684	1.16	2091000	**93.3**	30	-	125	
74	Ge	1	4327948	1.20	4536000	**95.4**	30	-	125	
103	Rh	1	5773834	0.93	6076000	**95.0**	30	-	125	
165	Ho	1	2607085	1.54	2580000	**101.0**	30	-	125	
175	Lu	1	2167374	0.28	2136000	**101.5**	30	-	125	
209	Bi	1	2607633	0.70	2616000	**99.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\052SMPL.D\052SMPL.D#
Date Acquired: Sep 27 2011 11:42 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.860**	ug/l	51.86	0.9	5000	6	P	
23	**Na**	1	**4593.000**	ug/l	4,593.00	0.6	500000	45	A	
24	**Mg**	1	**4590.000**	ug/l	4,590.00	0.8	500000	45	A	
27	**Al**	1	**456.900**	ug/l	456.90	0.9	500000	45	P	
31	**P**	1	**4626.000**	ug/l	4,626.00	0.7	500000	45	P	
39	**K**	1	**4891.000**	ug/l	4,891.00	0.9	500000	45	A	
44	**Ca**	1	**4886.000**	ug/l	4,886.00	0.3	500000	45	P	
47	**Ti**	1	**48.930**	ug/l	48.93	2.1	5000	45	P	
51	**V**	1	**47.900**	ug/l	47.90	0.8	5000	45	P	
52	**Cr**	1	**48.040**	ug/l	48.04	1.0	5000	45	P	
55	**Mn**	1	**50.380**	ug/l	50.38	0.3	5000	45	P	
57	**Fe**	1	**4862.000**	ug/l	4,862.00	0.9	500000	74	A	
59	**Co**	1	**48.940**	ug/l	48.94	1.1	5000	45	P	
60	**Ni**	1	**48.430**	ug/l	48.43	0.6	5000	74	P	
63	**Cu**	1	**48.780**	ug/l	48.78	0.3	5000	74	P	
66	**Zn**	1	**49.890**	ug/l	49.89	0.7	5000	74	P	
75	**As**	1	**49.390**	ug/l	49.39	0.8	5000	74	P	
78	**Se**	1	**48.990**	ug/l	48.99	1.4	5000	74	P	
88	**Sr**	1	**49.730**	ug/l	49.73	0.8	5000	74	P	
95	**Mo**	1	**48.430**	ug/l	48.43	1.8	5000	103	P	
109	**Ag**	1	**48.010**	ug/l	48.01	0.5	200	103	P	
111	**Cd**	1	**49.640**	ug/l	49.64	1.3	5000	103	P	
118	**Sn**	1	**49.760**	ug/l	49.76	0.7	5000	103	P	
123	**Sb**	1	**49.900**	ug/l	49.90	1.2	5000	103	P	
135	**Ba**	1	**50.450**	ug/l	50.45	1.9	5000	103	P	
200	**Hg**	1	**2.446**	ug/l	2.45	1.2	50	209	P	
205	**Tl**	1	**50.070**	ug/l	50.07	4.7	5000	103	M	
208	**Pb**	1	**48.370**	ug/l	48.37	1.5	5000	209	P	
238	**U**	1	**50.100**	ug/l	50.10	1.6	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131695	1.01	174500	**75.5**	30	-	125	
45	Sc	1	1940586	0.76	2091000	**92.8**	30	-	125	
74	Ge	1	4337315	0.03	4536000	**95.6**	30	-	125	
103	Rh	1	5798623	1.67	6076000	**95.4**	30	-	125	
165	Ho	1	2585569	0.93	2580000	**100.2**	30	-	125	
175	Lu	1	2169720	0.30	2136000	**101.6**	30	-	125	
209	Bi	1	2610778	1.38	2616000	**99.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\053SMPL.D\053SMPL.D#
Date Acquired: Sep 27 2011 11:47 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.004**	ug/l	0.00	98.0	5000	6	P	
23	Na	1	**-3.566**	ug/l	-3.57	40.6	500000	45	P	
24	Mg	1	**0.119**	ug/l	0.12	11.7	500000	45	P	
27	Al	1	**-0.172**	ug/l	-0.17	174.3	500000	45	P	
31	P	1	**-7.250**	ug/l	-7.25	29.4	500000	45	P	
39	K	1	**-4.110**	ug/l	-4.11	58.0	500000	45	P	
44	Ca	1	**-1.916**	ug/l	-1.92	10.1	500000	45	P	
47	Ti	1	**0.050**	ug/l	0.05	37.2	5000	45	P	
51	V	1	**-0.019**	ug/l	-0.02	146.2	5000	45	P	
52	Cr	1	**0.181**	ug/l	0.18	12.8	5000	45	P	
55	Mn	1	**0.188**	ug/l	0.19	6.8	5000	45	P	
57	Fe	1	**2.521**	ug/l	2.52	9.2	500000	74	P	
59	Co	1	**0.005**	ug/l	0.01	40.0	5000	45	P	
60	Ni	1	**0.033**	ug/l	0.03	56.7	5000	74	P	
63	Cu	1	**-0.035**	ug/l	-0.04	21.4	5000	74	P	
66	Zn	1	**-0.004**	ug/l	0.00	864.7	5000	74	P	
75	As	1	**0.021**	ug/l	0.02	29.9	5000	74	P	
78	Se	1	**0.035**	ug/l	0.04	162.5	5000	74	P	
88	Sr	1	**-0.008**	ug/l	-0.01	110.1	5000	74	P	
95	Mo	1	**0.097**	ug/l	0.10	11.1	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	384.8	200	103	P	
111	Cd	1	**0.007**	ug/l	0.01	98.9	5000	103	P	
118	Sn	1	**0.267**	ug/l	0.27	10.0	5000	103	P	
123	Sb	1	**0.072**	ug/l	0.07	24.3	5000	103	P	
135	Ba	1	**-0.002**	ug/l	0.00	245.9	5000	103	P	
200	Hg	1	**0.056**	ug/l	0.06	3.0	50	209	P	
205	Tl	1	**0.394**	ug/l	0.39	7.3	5000	103	P	
208	Pb	1	**0.007**	ug/l	0.01	143.5	5000	209	P	
238	U	1	**0.010**	ug/l	0.01	11.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	136118	2.19	174500	**78.0**	30	-	125	
45	Sc	1	1952791	2.34	2091000	**93.4**	30	-	125	
74	Ge	1	4402173	0.70	4536000	**97.0**	30	-	125	
103	Rh	1	5921047	1.32	6076000	**97.4**	30	-	125	
165	Ho	1	2646452	0.79	2580000	**102.6**	30	-	125	
175	Lu	1	2207023	0.86	2136000	**103.3**	30	-	125	
209	Bi	1	2691816	1.31	2616000	**102.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\054SMPL.D\054SMPL.D#
Date Acquired: Sep 27 2011 11:51 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-18-E SD Vial Number: 2501
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.116**	ug/l	5.78	6.5	5000	6	P	
23	**Na**	1	**92.020**	ug/l	4,601.00	10.7	500000	45	P	
24	**Mg**	1	**3043.000**	ug/l	152,150.00	2.1	500000	45	A	
27	**Al**	1	**5476.000**	ug/l	273,800.00	3.6	500000	45	A	
31	**P**	1	**214.700**	ug/l	10,735.00	3.8	500000	45	P	
39	**K**	1	**353.000**	ug/l	17,650.00	4.3	500000	45	P	
44	**Ca**	1	**929.800**	ug/l	46,490.00	2.7	500000	45	P	
47	**Ti**	1	**97.790**	ug/l	4,889.50	6.3	5000	45	P	
51	**V**	1	**18.370**	ug/l	918.50	3.6	5000	45	P	
52	**Cr**	1	**9.915**	ug/l	495.75	2.8	5000	45	P	
55	**Mn**	1	**562.100**	ug/l	28,105.00	2.1	5000	45	A	
57	**Fe**	1	**12380.000**	ug/l	619,000.00	0.7	500000	74	A	
59	**Co**	1	**5.181**	ug/l	259.05	1.6	5000	45	P	
60	**Ni**	1	**7.675**	ug/l	383.75	2.2	5000	74	P	
63	**Cu**	1	**10.530**	ug/l	526.50	0.7	5000	74	P	
66	**Zn**	1	**78.670**	ug/l	3,933.50	0.6	5000	74	P	
75	**As**	1	**154.300**	ug/l	7,715.00	1.1	5000	74	P	
78	**Se**	1	**0.234**	ug/l	11.71	22.0	5000	74	P	
88	**Sr**	1	**4.647**	ug/l	232.35	1.5	5000	74	P	
95	**Mo**	1	**0.280**	ug/l	14.01	6.9	5000	103	P	
109	**Ag**	1	**0.556**	ug/l	27.81	4.9	200	103	P	
111	**Cd**	1	**0.335**	ug/l	16.73	13.3	5000	103	P	
118	**Sn**	1	**0.359**	ug/l	17.97	1.1	5000	103	P	
123	**Sb**	1	**7.409**	ug/l	370.45	4.4	5000	103	P	
135	**Ba**	1	**16.220**	ug/l	811.00	4.9	5000	103	P	
200	**Hg**	1	**0.308**	ug/l	15.42	2.1	50	209	P	
205	**Tl**	1	**0.278**	ug/l	13.89	5.5	5000	103	P	
208	**Pb**	1	**65.540**	ug/l	3,277.00	4.3	5000	209	P	
238	**U**	1	**0.090**	ug/l	4.51	1.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	137290	0.35	174500	**78.7**	30	-	125	
45	Sc	1	1958912	2.79	2091000	**93.7**	30	-	125	
74	Ge	1	4363787	0.57	4536000	**96.2**	30	-	125	
103	Rh	1	5853851	2.73	6076000	**96.3**	30	-	125	
165	Ho	1	2612039	0.77	2580000	**101.2**	30	-	125	
175	Lu	1	2181394	1.19	2136000	**102.1**	30	-	125	
209	Bi	1	2534785	2.73	2616000	**96.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\055SMPL.D\055SMPL.D#
Date Acquired: Sep 27 2011 11:55 am Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-18-E Vial Number: 2502
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.582**	ug/l	5.82	2.5	5000	6	P	
23	**Na**	1	**460.900**	ug/l	4,609.00	8.5	500000	45	A	
24	**Mg**	1	**14250.000**	ug/l	142,500.00	0.4	500000	45	A	
27	**Al**	1	**25580.000**	ug/l	255,800.00	0.0	500000	45	A	
31	**P**	1	**1077.000**	ug/l	10,770.00	1.9	500000	45	P	
39	**K**	1	**1745.000**	ug/l	17,450.00	1.1	500000	45	A	
44	**Ca**	1	**4481.000**	ug/l	44,810.00	1.8	500000	45	P	
47	**Ti**	1	**471.400**	ug/l	4,714.00	2.5	5000	45	P	
51	**V**	1	**90.030**	ug/l	900.30	2.4	5000	45	P	
52	**Cr**	1	**48.160**	ug/l	481.60	2.0	5000	45	P	
55	**Mn**	1	**2633.000**	ug/l	26,330.00	1.2	5000	45	A	
57	**Fe**	1	**59610.000**	ug/l	596,100.00	0.7	500000	74	A	
59	**Co**	1	**25.070**	ug/l	250.70	1.7	5000	45	P	
60	**Ni**	1	**37.830**	ug/l	378.30	1.5	5000	74	P	
63	**Cu**	1	**51.110**	ug/l	511.10	1.2	5000	74	P	
66	**Zn**	1	**383.400**	ug/l	3,834.00	1.4	5000	74	P	
75	**As**	1	**795.400**	ug/l	7,954.00	0.4	5000	74	A	
78	**Se**	1	**1.045**	ug/l	10.45	9.2	5000	74	P	
88	**Sr**	1	**23.400**	ug/l	234.00	1.4	5000	74	P	
95	**Mo**	1	**1.211**	ug/l	12.11	0.8	5000	103	P	
109	**Ag**	1	**2.640**	ug/l	26.40	1.4	200	103	P	
111	**Cd**	1	**1.900**	ug/l	19.00	5.0	5000	103	P	
118	**Sn**	1	**1.505**	ug/l	15.05	0.9	5000	103	P	
123	**Sb**	1	**36.830**	ug/l	368.30	2.0	5000	103	P	
135	**Ba**	1	**80.810**	ug/l	808.10	1.5	5000	103	P	
200	**Hg**	1	**1.400**	ug/l	14.00	2.6	50	209	P	
205	**Tl**	1	**0.586**	ug/l	5.86	5.9	5000	103	P	
208	**Pb**	1	**314.800**	ug/l	3,148.00	1.6	5000	209	A	
238	**U**	1	**0.438**	ug/l	4.38	2.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129922	0.98	174500	**74.5**	30	-	125	
45	Sc	1	1927198	1.59	2091000	**92.2**	30	-	125	
74	Ge	1	4201313	1.08	4536000	**92.6**	30	-	125	
103	Rh	1	5586212	0.71	6076000	**91.9**	30	-	125	
165	Ho	1	2587670	1.03	2580000	**100.3**	30	-	125	
175	Lu	1	2157675	1.16	2136000	**101.0**	30	-	125	
209	Bi	1	2524942	1.88	2616000	**96.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\056SMPL.D\056SMPL.D#
Date Acquired: Sep 27 2011 12:00 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-18-F DU Vial Number: 2503
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.624**	ug/l	6.24	1.3	5000	6	P	
23	**Na**	1	**442.200**	ug/l	4,422.00	1.4	500000	45	A	
24	**Mg**	1	**14580.000**	ug/l	145,800.00	1.6	500000	45	A	
27	**Al**	1	**25740.000**	ug/l	257,400.00	0.5	500000	45	A	
31	**P**	1	**1091.000**	ug/l	10,910.00	2.0	500000	45	P	
39	**K**	1	**1763.000**	ug/l	17,630.00	0.9	500000	45	A	
44	**Ca**	1	**4555.000**	ug/l	45,550.00	1.5	500000	45	P	
47	**Ti**	1	**480.000**	ug/l	4,800.00	1.4	5000	45	P	
51	**V**	1	**91.010**	ug/l	910.10	1.8	5000	45	P	
52	**Cr**	1	**48.900**	ug/l	489.00	2.5	5000	45	P	
55	**Mn**	1	**2700.000**	ug/l	27,000.00	1.6	5000	45	A	
57	**Fe**	1	**60660.000**	ug/l	606,600.00	1.4	500000	74	A	
59	**Co**	1	**25.420**	ug/l	254.20	2.0	5000	45	P	
60	**Ni**	1	**37.980**	ug/l	379.80	2.7	5000	74	P	
63	**Cu**	1	**51.740**	ug/l	517.40	2.3	5000	74	P	
66	**Zn**	1	**386.400**	ug/l	3,864.00	1.6	5000	74	P	
75	**As**	1	**805.300**	ug/l	8,053.00	1.8	5000	74	A	
78	**Se**	1	**1.108**	ug/l	11.08	6.8	5000	74	P	
88	**Sr**	1	**23.600**	ug/l	236.00	1.1	5000	74	P	
95	**Mo**	1	**1.290**	ug/l	12.90	1.2	5000	103	P	
109	**Ag**	1	**2.720**	ug/l	27.20	2.9	200	103	P	
111	**Cd**	1	**1.814**	ug/l	18.14	6.1	5000	103	P	
118	**Sn**	1	**1.477**	ug/l	14.77	4.5	5000	103	P	
123	**Sb**	1	**37.290**	ug/l	372.90	1.5	5000	103	P	
135	**Ba**	1	**82.050**	ug/l	820.50	1.6	5000	103	P	
200	**Hg**	1	**1.391**	ug/l	13.91	1.1	50	209	P	
205	**Tl**	1	**0.572**	ug/l	5.72	2.6	5000	103	P	
208	**Pb**	1	**319.400**	ug/l	3,194.00	0.3	5000	209	A	
238	**U**	1	**0.443**	ug/l	4.43	2.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	128663	1.16	174500	**73.7**	30	-	125	
45	Sc	1	1901804	1.19	2091000	**91.0**	30	-	125	
74	Ge	1	4164204	0.80	4536000	**91.8**	30	-	125	
103	Rh	1	5525807	0.66	6076000	**90.9**	30	-	125	
165	Ho	1	2545334	0.33	2580000	**98.7**	30	-	125	
175	Lu	1	2124301	1.24	2136000	**99.5**	30	-	125	
209	Bi	1	2515937	0.62	2616000	**96.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\057SMPL.D\057SMPL.D#
Date Acquired: Sep 27 2011 12:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-18-G MS Vial Number: 2504
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.380**	ug/l	119.00	2.3	5000	6	P	
23	**Na**	1	**554.500**	ug/l	27,725.00	1.3	500000	45	A	
24	**Mg**	1	**3313.000**	ug/l	165,650.00	1.5	500000	45	A	
27	**Al**	1	**5507.000**	ug/l	275,350.00	1.1	500000	45	A	
31	**P**	1	**607.600**	ug/l	30,380.00	1.8	500000	45	P	
39	**K**	1	**725.700**	ug/l	36,285.00	0.7	500000	45	A	
44	**Ca**	1	**1438.000**	ug/l	71,900.00	1.2	500000	45	P	
47	**Ti**	1	**190.500**	ug/l	9,525.00	1.5	5000	45	P	
51	**V**	1	**39.460**	ug/l	1,973.00	1.5	5000	45	P	
52	**Cr**	1	**17.750**	ug/l	887.50	1.2	5000	45	P	
55	**Mn**	1	**570.300**	ug/l	28,515.00	1.9	5000	45	A	
57	**Fe**	1	**12510.000**	ug/l	625,500.00	0.9	500000	74	A	
59	**Co**	1	**26.890**	ug/l	1,344.50	1.6	5000	45	P	
60	**Ni**	1	**29.170**	ug/l	1,458.50	2.0	5000	74	P	
63	**Cu**	1	**22.830**	ug/l	1,141.50	1.3	5000	74	P	
66	**Zn**	1	**116.700**	ug/l	5,835.00	1.7	5000	74	P	
75	**As**	1	**241.600**	ug/l	12,080.00	1.1	5000	74	P	
78	**Se**	1	**86.710**	ug/l	4,335.50	1.6	5000	74	P	
88	**Sr**	1	**5.804**	ug/l	290.20	2.3	5000	74	P	
95	**Mo**	1	**107.600**	ug/l	5,380.00	0.8	5000	103	P	
109	**Ag**	1	**13.350**	ug/l	667.50	1.2	200	103	P	
111	**Cd**	1	**2.543**	ug/l	127.15	3.7	5000	103	P	
118	**Sn**	1	**106.000**	ug/l	5,300.00	1.7	5000	103	P	
123	**Sb**	1	**34.430**	ug/l	1,721.50	1.4	5000	103	P	
135	**Ba**	1	**106.900**	ug/l	5,345.00	1.2	5000	103	P	
200	**Hg**	1	**1.278**	ug/l	63.90	2.9	50	209	P	
205	**Tl**	1	**93.810**	ug/l	4,690.50	1.2	5000	103	A	
208	**Pb**	1	**88.490**	ug/l	4,424.50	2.8	5000	209	A	
238	**U**	1	**0.080**	ug/l	4.02	10.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	138378	1.82	174500	**79.3**	30	-	125	
45	Sc	1	1944335	1.38	2091000	**93.0**	30	-	125	
74	Ge	1	4307069	1.24	4536000	**95.0**	30	-	125	
103	Rh	1	5743223	0.72	6076000	**94.5**	30	-	125	
165	Ho	1	2579417	0.63	2580000	**100.0**	30	-	125	
175	Lu	1	2165774	0.42	2136000	**101.4**	30	-	125	
209	Bi	1	2544375	2.43	2616000	**97.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\058SMPL.D\058SMPL.D#
Date Acquired: Sep 27 2011 12:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-18-H MSD Vial Number: 2505
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.465**	ug/l	123.25	3.0	5000	6	P	
23	**Na**	1	**552.700**	ug/l	27,635.00	2.0	500000	45	A	
24	**Mg**	1	**3459.000**	ug/l	172,950.00	2.4	500000	45	A	
27	**Al**	1	**5700.000**	ug/l	285,000.00	1.8	500000	45	A	
31	**P**	1	**618.400**	ug/l	30,920.00	3.1	500000	45	P	
39	**K**	1	**733.700**	ug/l	36,685.00	3.2	500000	45	A	
44	**Ca**	1	**1426.000**	ug/l	71,300.00	1.5	500000	45	P	
47	**Ti**	1	**185.600**	ug/l	9,280.00	2.4	5000	45	P	
51	**V**	1	**40.220**	ug/l	2,011.00	2.0	5000	45	P	
52	**Cr**	1	**18.900**	ug/l	945.00	1.5	5000	45	P	
55	**Mn**	1	**543.800**	ug/l	27,190.00	1.0	5000	45	A	
57	**Fe**	1	**13090.000**	ug/l	654,500.00	0.8	500000	74	A	
59	**Co**	1	**27.160**	ug/l	1,358.00	3.0	5000	45	P	
60	**Ni**	1	**30.090**	ug/l	1,504.50	0.6	5000	74	P	
63	**Cu**	1	**22.140**	ug/l	1,107.00	0.3	5000	74	P	
66	**Zn**	1	**101.300**	ug/l	5,065.00	0.6	5000	74	P	
75	**As**	1	**251.900**	ug/l	12,595.00	0.7	5000	74	P	
78	**Se**	1	**88.610**	ug/l	4,430.50	1.4	5000	74	P	
88	**Sr**	1	**5.469**	ug/l	273.45	1.0	5000	74	P	
95	**Mo**	1	**109.700**	ug/l	5,485.00	1.5	5000	103	P	
109	**Ag**	1	**13.490**	ug/l	674.50	1.0	200	103	P	
111	**Cd**	1	**2.467**	ug/l	123.35	2.3	5000	103	P	
118	**Sn**	1	**108.400**	ug/l	5,420.00	1.8	5000	103	P	
123	**Sb**	1	**37.750**	ug/l	1,887.50	2.3	5000	103	P	
135	**Ba**	1	**107.800**	ug/l	5,390.00	2.0	5000	103	P	
200	**Hg**	1	**1.511**	ug/l	75.55	5.4	50	209	P	
205	**Tl**	1	**94.470**	ug/l	4,723.50	2.1	5000	103	A	
208	**Pb**	1	**87.470**	ug/l	4,373.50	3.6	5000	209	A	
238	**U**	1	**0.081**	ug/l	4.06	13.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	139833	1.01	174500	**80.1**	30	-	125	
45	Sc	1	1956363	1.98	2091000	**93.6**	30	-	125	
74	Ge	1	4323718	0.96	4536000	**95.3**	30	-	125	
103	Rh	1	5755195	1.19	6076000	**94.7**	30	-	125	
165	Ho	1	2575705	0.99	2580000	**99.8**	30	-	125	
175	Lu	1	2156762	0.20	2136000	**101.0**	30	-	125	
209	Bi	1	2559450	3.47	2616000	**97.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\059SMPL.D\059SMPL.D#
Date Acquired: Sep 27 2011 12:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-18-E PDS Vial Number: 2506
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.540**	ug/l	127.00	3.4	5000	6	P	
23	**Na**	1	**545.400**	ug/l	27,270.00	3.0	500000	45	A	
24	**Mg**	1	**3256.000**	ug/l	162,800.00	1.7	500000	45	A	
27	**Al**	1	**5174.000**	ug/l	258,700.00	1.8	500000	45	A	
31	**P**	1	**619.800**	ug/l	30,990.00	2.6	500000	45	P	
39	**K**	1	**802.700**	ug/l	40,135.00	1.5	500000	45	A	
44	**Ca**	1	**1310.000**	ug/l	65,500.00	1.8	500000	45	P	
47	**Ti**	1	**200.700**	ug/l	10,035.00	1.9	5000	45	P	
51	**V**	1	**39.260**	ug/l	1,963.00	2.8	5000	45	P	
52	**Cr**	1	**18.150**	ug/l	907.50	3.9	5000	45	P	
55	**Mn**	1	**539.300**	ug/l	26,965.00	0.8	5000	45	A	
57	**Fe**	1	**12140.000**	ug/l	607,000.00	1.0	500000	74	A	
59	**Co**	1	**27.360**	ug/l	1,368.00	2.6	5000	45	P	
60	**Ni**	1	**30.140**	ug/l	1,507.00	1.7	5000	74	P	
63	**Cu**	1	**21.360**	ug/l	1,068.00	0.8	5000	74	P	
66	**Zn**	1	**95.620**	ug/l	4,781.00	0.6	5000	74	P	
75	**As**	1	**236.300**	ug/l	11,815.00	0.8	5000	74	P	
78	**Se**	1	**91.040**	ug/l	4,552.00	0.6	5000	74	P	
88	**Sr**	1	**4.324**	ug/l	216.20	1.8	5000	74	P	
95	**Mo**	1	**112.700**	ug/l	5,635.00	1.6	5000	103	P	
109	**Ag**	1	**14.160**	ug/l	708.00	3.0	200	103	P	
111	**Cd**	1	**2.624**	ug/l	131.20	5.1	5000	103	P	
118	**Sn**	1	**114.400**	ug/l	5,720.00	1.9	5000	103	P	
123	**Sb**	1	**75.950**	ug/l	3,797.50	2.1	5000	103	P	
135	**Ba**	1	**110.300**	ug/l	5,515.00	2.0	5000	103	P	
200	**Hg**	1	**1.418**	ug/l	70.90	2.0	50	209	P	
205	**Tl**	1	**96.940**	ug/l	4,847.00	2.9	5000	103	A	
208	**Pb**	1	**84.660**	ug/l	4,233.00	3.9	5000	209	A	
238	**U**	1	**0.079**	ug/l	3.97	5.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	141205	0.65	174500	**80.9**	30	-	125	
45	Sc	1	1972958	2.05	2091000	**94.4**	30	-	125	
74	Ge	1	4335050	0.66	4536000	**95.6**	30	-	125	
103	Rh	1	5731384	2.04	6076000	**94.3**	30	-	125	
165	Ho	1	2574290	1.88	2580000	**99.8**	30	-	125	
175	Lu	1	2180498	1.46	2136000	**102.1**	30	-	125	
209	Bi	1	2514645	3.16	2616000	**96.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\060SMPL.D\060SMPL.D#
Date Acquired: Sep 27 2011 12:17 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-19-B Vial Number: 2507
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.129**	ug/l	1.29	15.2	5000	6	P	
23	**Na**	1	**190.100**	ug/l	1,901.00	5.3	500000	45	P	
24	**Mg**	1	**1667.000**	ug/l	16,670.00	1.7	500000	45	A	
27	**Al**	1	**23140.000**	ug/l	231,400.00	2.6	500000	45	A	
31	**P**	1	**450.400**	ug/l	4,504.00	3.4	500000	45	P	
39	**K**	1	**402.400**	ug/l	4,024.00	1.7	500000	45	P	
44	**Ca**	1	**319.400**	ug/l	3,194.00	1.9	500000	45	P	
47	**Ti**	1	**1634.000**	ug/l	16,340.00	1.5	5000	45	P	
51	**V**	1	**77.200**	ug/l	772.00	2.2	5000	45	P	
52	**Cr**	1	**33.540**	ug/l	335.40	2.1	5000	45	P	
55	**Mn**	1	**112.000**	ug/l	1,120.00	4.4	5000	45	P	
57	**Fe**	1	**47040.000**	ug/l	470,400.00	0.3	500000	74	A	
59	**Co**	1	**3.119**	ug/l	31.19	2.5	5000	45	P	
60	**Ni**	1	**12.320**	ug/l	123.20	1.0	5000	74	P	
63	**Cu**	1	**18.510**	ug/l	185.10	1.7	5000	74	P	
66	**Zn**	1	**31.750**	ug/l	317.50	2.4	5000	74	P	
75	**As**	1	**25.510**	ug/l	255.10	2.3	5000	74	P	
78	**Se**	1	**0.932**	ug/l	9.32	4.7	5000	74	P	
88	**Sr**	1	**4.135**	ug/l	41.35	1.4	5000	74	P	
95	**Mo**	1	**1.834**	ug/l	18.34	1.7	5000	103	P	
109	**Ag**	1	**0.673**	ug/l	6.73	0.9	200	103	P	
111	**Cd**	1	**0.330**	ug/l	3.30	21.2	5000	103	P	
118	**Sn**	1	**3.468**	ug/l	34.68	2.8	5000	103	P	
123	**Sb**	1	**0.617**	ug/l	6.17	5.1	5000	103	P	
135	**Ba**	1	**32.720**	ug/l	327.20	2.2	5000	103	P	
200	**Hg**	1	**0.335**	ug/l	3.35	3.2	50	209	P	
205	**Tl**	1	**0.409**	ug/l	4.09	7.7	5000	103	P	
208	**Pb**	1	**18.600**	ug/l	186.00	1.5	5000	209	P	
238	**U**	1	**0.580**	ug/l	5.80	3.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131326	0.82	174500	**75.3**	30	-	125	
45	Sc	1	1863456	1.14	2091000	**89.1**	30	-	125	
74	Ge	1	4168408	0.95	4536000	**91.9**	30	-	125	
103	Rh	1	5558479	0.35	6076000	**91.5**	30	-	125	
165	Ho	1	2553211	1.26	2580000	**99.0**	30	-	125	
175	Lu	1	2141219	0.88	2136000	**100.2**	30	-	125	
209	Bi	1	2587174	0.85	2616000	**98.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\061SMPL.D\061SMPL.D#
Date Acquired: Sep 27 2011 12:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-20-B Vial Number: 2508
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.210**	ug/l	2.10	4.5	5000	6	P	
23	**Na**	1	**108.000**	ug/l	1,080.00	2.8	500000	45	P	
24	**Mg**	1	**3346.000**	ug/l	33,460.00	0.7	500000	45	A	
27	**Al**	1	**20170.000**	ug/l	201,700.00	1.9	500000	45	A	
31	**P**	1	**899.200**	ug/l	8,992.00	1.8	500000	45	P	
39	**K**	1	**649.500**	ug/l	6,495.00	5.0	500000	45	A	
44	**Ca**	1	**486.500**	ug/l	4,865.00	1.7	500000	45	P	
47	**Ti**	1	**773.400**	ug/l	7,734.00	1.6	5000	45	P	
51	**V**	1	**70.730**	ug/l	707.30	1.1	5000	45	P	
52	**Cr**	1	**34.990**	ug/l	349.90	0.9	5000	45	P	
55	**Mn**	1	**277.400**	ug/l	2,774.00	0.6	5000	45	A	
57	**Fe**	1	**29130.000**	ug/l	291,300.00	1.0	500000	74	A	
59	**Co**	1	**5.181**	ug/l	51.81	1.7	5000	45	P	
60	**Ni**	1	**22.090**	ug/l	220.90	0.7	5000	74	P	
63	**Cu**	1	**24.850**	ug/l	248.50	1.4	5000	74	P	
66	**Zn**	1	**86.210**	ug/l	862.10	0.5	5000	74	P	
75	**As**	1	**22.650**	ug/l	226.50	1.0	5000	74	P	
78	**Se**	1	**1.342**	ug/l	13.42	7.7	5000	74	P	
88	**Sr**	1	**4.991**	ug/l	49.91	1.0	5000	74	P	
95	**Mo**	1	**1.686**	ug/l	16.86	1.1	5000	103	P	
109	**Ag**	1	**1.025**	ug/l	10.25	2.9	200	103	P	
111	**Cd**	1	**0.390**	ug/l	3.90	14.8	5000	103	P	
118	**Sn**	1	**2.192**	ug/l	21.92	2.1	5000	103	P	
123	**Sb**	1	**0.629**	ug/l	6.29	5.7	5000	103	P	
135	**Ba**	1	**48.790**	ug/l	487.90	2.4	5000	103	P	
200	**Hg**	1	**0.222**	ug/l	2.22	4.5	50	209	P	
205	**Tl**	1	**0.292**	ug/l	2.92	7.2	5000	103	P	
208	**Pb**	1	**34.500**	ug/l	345.00	1.1	5000	209	P	
238	**U**	1	**0.450**	ug/l	4.50	2.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131395	2.21	174500	**75.3**	30	-	125	
45	Sc	1	1898006	1.42	2091000	**90.8**	30	-	125	
74	Ge	1	4248217	0.87	4536000	**93.7**	30	-	125	
103	Rh	1	5648110	0.39	6076000	**93.0**	30	-	125	
165	Ho	1	2599203	1.31	2580000	**100.7**	30	-	125	
175	Lu	1	2174482	0.51	2136000	**101.8**	30	-	125	
209	Bi	1	2563105	0.90	2616000	**98.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\062SMPL.D\062SMPL.D#
Date Acquired: Sep 27 2011 12:26 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-37-B Vial Number: 2511
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.008**	ug/l	8.38	39.3	5000	6	P	
23	**Na**	1	**-0.580**	ug/l	-579.90	175.6	500000	45	P	
24	**Mg**	1	**125.900**	ug/l	125,900.00	1.2	500000	45	P	
27	**Al**	1	**272.200**	ug/l	272,200.00	0.2	500000	45	P	
31	**P**	1	**5.158**	ug/l	5,158.00	4.9	500000	45	P	
39	**K**	1	**35.200**	ug/l	35,200.00	7.4	500000	45	P	
44	**Ca**	1	**59.160**	ug/l	59,160.00	3.3	500000	45	P	
47	**Ti**	1	**7.220**	ug/l	7,220.00	1.5	5000	45	P	
51	**V**	1	**0.667**	ug/l	667.20	2.4	5000	45	P	
52	**Cr**	1	**0.291**	ug/l	290.90	8.4	5000	45	P	
55	**Mn**	1	**81.190**	ug/l	81,190.00	0.4	5000	45	P	
57	**Fe**	1	**1202.000**	ug/l	1,202,000.00	0.8	500000	74	P	
59	**Co**	1	**0.484**	ug/l	483.80	5.0	5000	45	P	
60	**Ni**	1	**0.402**	ug/l	402.20	3.4	5000	74	P	
63	**Cu**	1	**2.948**	ug/l	2,948.00	2.5	5000	74	P	
66	**Zn**	1	**45.950**	ug/l	45,950.00	1.8	5000	74	P	
75	**As**	1	**91.070**	ug/l	91,070.00	1.3	5000	74	P	
78	**Se**	1	**0.052**	ug/l	52.33	60.5	5000	74	P	
88	**Sr**	1	**0.188**	ug/l	188.10	2.2	5000	74	P	
95	**Mo**	1	**0.041**	ug/l	40.93	21.3	5000	103	P	
109	**Ag**	1	**0.336**	ug/l	335.50	2.1	200	103	P	
111	**Cd**	1	**0.249**	ug/l	249.30	3.2	5000	103	P	
118	**Sn**	1	**0.182**	ug/l	182.00	13.1	5000	103	P	
123	**Sb**	1	**0.307**	ug/l	307.30	5.0	5000	103	P	
135	**Ba**	1	**1.198**	ug/l	1,198.00	2.9	5000	103	P	
200	**Hg**	1	**0.028**	ug/l	27.73	25.6	50	209	P	
205	**Tl**	1	**0.102**	ug/l	102.40	12.8	5000	103	P	
208	**Pb**	1	**64.860**	ug/l	64,860.00	0.6	5000	209	M	
238	**U**	1	**0.002**	ug/l	1.69	43.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133597	1.59	174500	**76.6**	30	-	125	
45	Sc	1	1895539	0.62	2091000	**90.7**	30	-	125	
74	Ge	1	4261964	0.73	4536000	**94.0**	30	-	125	
103	Rh	1	5833960	1.80	6076000	**96.0**	30	-	125	
165	Ho	1	2575658	1.22	2580000	**99.8**	30	-	125	
175	Lu	1	2158316	1.89	2136000	**101.0**	30	-	125	
209	Bi	1	2674944	0.73	2616000	**102.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\063SMPL.D\063SMPL.D#
Date Acquired: Sep 27 2011 12:30 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-38-B Vial Number: 2512
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	4.76	71.3	5000	6	P	
23	**Na**	1	**-2.187**	ug/l	-2,187.00	50.1	500000	45	P	
24	**Mg**	1	**107.400**	ug/l	107,400.00	2.2	500000	45	P	
27	**Al**	1	**344.100**	ug/l	344,100.00	1.5	500000	45	P	
31	**P**	1	**5.707**	ug/l	5,707.00	9.8	500000	45	P	
39	**K**	1	**26.150**	ug/l	26,150.00	8.0	500000	45	P	
44	**Ca**	1	**18.410**	ug/l	18,410.00	4.9	500000	45	P	
47	**Ti**	1	**7.051**	ug/l	7,051.00	5.9	5000	45	P	
51	**V**	1	**0.751**	ug/l	750.50	6.3	5000	45	P	
52	**Cr**	1	**0.231**	ug/l	230.60	7.1	5000	45	P	
55	**Mn**	1	**92.350**	ug/l	92,350.00	1.8	5000	45	P	
57	**Fe**	1	**899.400**	ug/l	899,400.00	1.2	500000	74	P	
59	**Co**	1	**0.522**	ug/l	522.10	3.0	5000	45	P	
60	**Ni**	1	**0.306**	ug/l	306.30	6.4	5000	74	P	
63	**Cu**	1	**1.701**	ug/l	1,701.00	1.4	5000	74	P	
66	**Zn**	1	**18.670**	ug/l	18,670.00	1.0	5000	74	P	
75	**As**	1	**39.300**	ug/l	39,300.00	0.3	5000	74	P	
78	**Se**	1	**-0.010**	ug/l	-10.35	1123.7	5000	74	P	
88	**Sr**	1	**0.094**	ug/l	94.35	3.7	5000	74	P	
95	**Mo**	1	**0.046**	ug/l	45.56	14.6	5000	103	P	
109	**Ag**	1	**0.077**	ug/l	77.42	7.6	200	103	P	
111	**Cd**	1	**0.139**	ug/l	138.60	16.3	5000	103	P	
118	**Sn**	1	**0.135**	ug/l	135.20	15.1	5000	103	P	
123	**Sb**	1	**0.098**	ug/l	98.39	8.8	5000	103	P	
135	**Ba**	1	**0.779**	ug/l	779.10	7.8	5000	103	P	
200	**Hg**	1	**0.032**	ug/l	32.43	2.1	50	209	P	
205	**Tl**	1	**0.083**	ug/l	83.40	13.4	5000	103	P	
208	**Pb**	1	**19.730**	ug/l	19,730.00	2.4	5000	209	P	
238	**U**	1	**0.001**	ug/l	1.43	52.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130602	2.12	174500	**74.8**	30	-	125	
45	Sc	1	1901559	1.93	2091000	**90.9**	30	-	125	
74	Ge	1	4261358	0.28	4536000	**93.9**	30	-	125	
103	Rh	1	5881091	1.08	6076000	**96.8**	30	-	125	
165	Ho	1	2571865	0.40	2580000	**99.7**	30	-	125	
175	Lu	1	2149078	0.72	2136000	**100.6**	30	-	125	
209	Bi	1	2655514	1.45	2616000	**101.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\064SMPL.D\064SMPL.D#
Date Acquired: Sep 27 2011 12:34 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.960**	ug/l	51.96	2.3	5000	6	P	
23	**Na**	1	**4668.000**	ug/l	4,668.00	1.9	500000	45	A	
24	**Mg**	1	**4588.000**	ug/l	4,588.00	1.6	500000	45	A	
27	**Al**	1	**457.400**	ug/l	457.40	1.0	500000	45	P	
31	**P**	1	**4611.000**	ug/l	4,611.00	0.8	500000	45	P	
39	**K**	1	**4867.000**	ug/l	4,867.00	1.1	500000	45	A	
44	**Ca**	1	**4904.000**	ug/l	4,904.00	0.3	500000	45	P	
47	**Ti**	1	**48.810**	ug/l	48.81	0.5	5000	45	P	
51	**V**	1	**48.260**	ug/l	48.26	1.0	5000	45	P	
52	**Cr**	1	**48.140**	ug/l	48.14	0.2	5000	45	P	
55	**Mn**	1	**50.170**	ug/l	50.17	0.6	5000	45	P	
57	**Fe**	1	**4761.000**	ug/l	4,761.00	1.1	500000	74	A	
59	**Co**	1	**49.110**	ug/l	49.11	1.8	5000	45	P	
60	**Ni**	1	**48.750**	ug/l	48.75	2.2	5000	74	P	
63	**Cu**	1	**49.040**	ug/l	49.04	2.0	5000	74	P	
66	**Zn**	1	**49.820**	ug/l	49.82	2.7	5000	74	P	
75	**As**	1	**49.440**	ug/l	49.44	2.4	5000	74	P	
78	**Se**	1	**49.230**	ug/l	49.23	1.9	5000	74	P	
88	**Sr**	1	**50.070**	ug/l	50.07	1.4	5000	74	P	
95	**Mo**	1	**48.930**	ug/l	48.93	1.0	5000	103	P	
109	**Ag**	1	**48.820**	ug/l	48.82	1.4	200	103	P	
111	**Cd**	1	**50.660**	ug/l	50.66	2.2	5000	103	P	
118	**Sn**	1	**50.690**	ug/l	50.69	2.2	5000	103	P	
123	**Sb**	1	**50.710**	ug/l	50.71	2.4	5000	103	P	
135	**Ba**	1	**50.820**	ug/l	50.82	3.3	5000	103	P	
200	**Hg**	1	**2.452**	ug/l	2.45	1.0	50	209	P	
205	**Tl**	1	**50.000**	ug/l	50.00	2.3	5000	103	M	
208	**Pb**	1	**48.770**	ug/l	48.77	1.5	5000	209	P	
238	**U**	1	**49.110**	ug/l	49.11	0.7	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130853	1.45	174500	**75.0**	30	-	125	
45	Sc	1	1930655	1.01	2091000	**92.3**	30	-	125	
74	Ge	1	4305704	1.36	4536000	**94.9**	30	-	125	
103	Rh	1	5675919	1.39	6076000	**93.4**	30	-	125	
165	Ho	1	2580255	0.46	2580000	**100.0**	30	-	125	
175	Lu	1	2190544	1.51	2136000	**102.6**	30	-	125	
209	Bi	1	2571909	0.50	2616000	**98.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\065SMPL.D\065SMPL.D#
Date Acquired: Sep 27 2011 12:39 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.004**	ug/l	0.00	145.0	5000	6	P	
23	Na	1	**-4.393**	ug/l	-4.39	42.3	500000	45	P	
24	Mg	1	**0.060**	ug/l	0.06	154.6	500000	45	P	
27	Al	1	**-0.168**	ug/l	-0.17	118.0	500000	45	P	
31	P	1	**-8.235**	ug/l	-8.24	7.4	500000	45	P	
39	K	1	**-3.759**	ug/l	-3.76	97.9	500000	45	P	
44	Ca	1	**-2.261**	ug/l	-2.26	8.4	500000	45	P	
47	Ti	1	**0.092**	ug/l	0.09	22.2	5000	45	P	
51	V	1	**-0.021**	ug/l	-0.02	39.5	5000	45	P	
52	Cr	1	**0.183**	ug/l	0.18	8.0	5000	45	P	
55	Mn	1	**0.127**	ug/l	0.13	12.6	5000	45	P	
57	Fe	1	**2.753**	ug/l	2.75	12.0	500000	74	P	
59	Co	1	**0.002**	ug/l	0.00	62.6	5000	45	P	
60	Ni	1	**0.020**	ug/l	0.02	72.7	5000	74	P	
63	Cu	1	**-0.035**	ug/l	-0.04	20.6	5000	74	P	
66	Zn	1	**-0.009**	ug/l	-0.01	415.0	5000	74	P	
75	As	1	**0.012**	ug/l	0.01	145.1	5000	74	P	
78	Se	1	**0.143**	ug/l	0.14	23.2	5000	74	P	
88	Sr	1	**-0.010**	ug/l	-0.01	48.4	5000	74	P	
95	Mo	1	**0.075**	ug/l	0.07	19.1	5000	103	P	
109	Ag	1	**0.002**	ug/l	0.00	75.6	200	103	P	
111	Cd	1	**0.005**	ug/l	0.00	128.0	5000	103	P	
118	Sn	1	**0.228**	ug/l	0.23	21.8	5000	103	P	
123	Sb	1	**0.046**	ug/l	0.05	45.4	5000	103	P	
135	Ba	1	**0.003**	ug/l	0.00	291.3	5000	103	P	
200	Hg	1	**0.025**	ug/l	0.02	7.1	50	209	P	
205	Tl	1	**0.276**	ug/l	0.28	9.5	5000	103	P	
208	Pb	1	**-0.010**	ug/l	-0.01	192.5	5000	209	P	
238	U	1	**0.010**	ug/l	0.01	24.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	132590	2.26	174500	**76.0**	30	-	125	
45	Sc	1	1929121	2.74	2091000	**92.3**	30	-	125	
74	Ge	1	4300471	0.26	4536000	**94.8**	30	-	125	
103	Rh	1	5869013	0.05	6076000	**96.6**	30	-	125	
165	Ho	1	2576232	1.86	2580000	**99.9**	30	-	125	
175	Lu	1	2190163	1.64	2136000	**102.5**	30	-	125	
209	Bi	1	2674084	2.00	2616000	**102.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\066SMPL.D\066SMPL.D#
Date Acquired: Sep 27 2011 12:43 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-21-B Vial Number: 2509
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.233**	ug/l	12.33	8.3	5000	6	P	
23	**Na**	1	**140.200**	ug/l	1,402.00	2.0	500000	45	P	
24	**Mg**	1	**11890.000**	ug/l	118,900.00	1.4	500000	45	A	
27	**Al**	1	**50590.000**	ug/l	505,900.00	1.0	500000	45	A	
31	**P**	1	**547.000**	ug/l	5,470.00	4.9	500000	45	P	
39	**K**	1	**1081.000**	ug/l	10,810.00	1.5	500000	45	A	
44	**Ca**	1	**458.900**	ug/l	4,589.00	2.4	500000	45	P	
47	**Ti**	1	**341.900**	ug/l	3,419.00	1.3	5000	45	P	
51	**V**	1	**113.400**	ug/l	1,134.00	2.0	5000	45	A	
52	**Cr**	1	**106.500**	ug/l	1,065.00	0.8	5000	45	A	
55	**Mn**	1	**886.900**	ug/l	8,869.00	0.9	5000	45	A	
57	**Fe**	1	**83090.000**	ug/l	830,900.00	1.3	500000	74	A	
59	**Co**	1	**32.090**	ug/l	320.90	1.1	5000	45	P	
60	**Ni**	1	**151.700**	ug/l	1,517.00	0.1	5000	74	P	
63	**Cu**	1	**104.800**	ug/l	1,048.00	0.6	5000	74	P	
66	**Zn**	1	**187.300**	ug/l	1,873.00	0.7	5000	74	P	
75	**As**	1	**82.450**	ug/l	824.50	0.1	5000	74	P	
78	**Se**	1	**2.109**	ug/l	21.09	4.2	5000	74	P	
88	**Sr**	1	**6.339**	ug/l	63.39	1.5	5000	74	P	
95	**Mo**	1	**2.169**	ug/l	21.69	0.4	5000	103	P	
109	**Ag**	1	**0.379**	ug/l	3.79	3.9	200	103	P	
111	**Cd**	1	**0.260**	ug/l	2.60	2.0	5000	103	P	
118	**Sn**	1	**2.078**	ug/l	20.78	2.1	5000	103	P	
123	**Sb**	1	**1.146**	ug/l	11.46	3.5	5000	103	P	
135	**Ba**	1	**157.300**	ug/l	1,573.00	2.0	5000	103	P	
200	**Hg**	1	**0.232**	ug/l	2.32	4.6	50	209	P	
205	**Tl**	1	**0.341**	ug/l	3.41	6.7	5000	103	P	
208	**Pb**	1	**28.830**	ug/l	288.30	1.8	5000	209	P	
238	**U**	1	**0.496**	ug/l	4.96	2.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	125999	2.06	174500	**72.2**	30	-	125	
45	Sc	1	1898136	0.74	2091000	**90.8**	30	-	125	
74	Ge	1	4055028	0.84	4536000	**89.4**	30	-	125	
103	Rh	1	5417400	0.68	6076000	**89.2**	30	-	125	
165	Ho	1	2506672	1.87	2580000	**97.2**	30	-	125	
175	Lu	1	2087631	0.44	2136000	**97.7**	30	-	125	
209	Bi	1	2455008	0.42	2616000	**93.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\067SMPL.D\067SMPL.D#
Date Acquired: Sep 27 2011 12:48 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-22-B Vial Number: 2510
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.199**	ug/l	1.99	6.1	5000	6	P	
23	**Na**	1	**132.700**	ug/l	1,327.00	2.1	500000	45	P	
24	**Mg**	1	**1857.000**	ug/l	18,570.00	2.2	500000	45	A	
27	**Al**	1	**22770.000**	ug/l	227,700.00	1.2	500000	45	A	
31	**P**	1	**361.200**	ug/l	3,612.00	4.1	500000	45	P	
39	**K**	1	**300.800**	ug/l	3,008.00	3.6	500000	45	P	
44	**Ca**	1	**368.300**	ug/l	3,683.00	2.2	500000	45	P	
47	**Ti**	1	**808.000**	ug/l	8,080.00	2.4	5000	45	P	
51	**V**	1	**65.210**	ug/l	652.10	2.3	5000	45	P	
52	**Cr**	1	**25.130**	ug/l	251.30	2.2	5000	45	P	
55	**Mn**	1	**112.900**	ug/l	1,129.00	2.6	5000	45	P	
57	**Fe**	1	**31150.000**	ug/l	311,500.00	0.8	500000	74	A	
59	**Co**	1	**3.182**	ug/l	31.82	4.4	5000	45	P	
60	**Ni**	1	**13.080**	ug/l	130.80	2.6	5000	74	P	
63	**Cu**	1	**15.160**	ug/l	151.60	1.3	5000	74	P	
66	**Zn**	1	**26.610**	ug/l	266.10	0.8	5000	74	P	
75	**As**	1	**12.590**	ug/l	125.90	2.2	5000	74	P	
78	**Se**	1	**0.984**	ug/l	9.84	17.9	5000	74	P	
88	**Sr**	1	**7.965**	ug/l	79.65	0.5	5000	74	P	
95	**Mo**	1	**0.932**	ug/l	9.32	0.9	5000	103	P	
109	**Ag**	1	**0.400**	ug/l	4.00	1.0	200	103	P	
111	**Cd**	1	**0.173**	ug/l	1.73	27.0	5000	103	P	
118	**Sn**	1	**1.648**	ug/l	16.48	1.2	5000	103	P	
123	**Sb**	1	**0.227**	ug/l	2.27	7.2	5000	103	P	
135	**Ba**	1	**36.150**	ug/l	361.50	2.2	5000	103	P	
200	**Hg**	1	**0.292**	ug/l	2.92	4.4	50	209	P	
205	**Tl**	1	**0.170**	ug/l	1.70	12.3	5000	103	P	
208	**Pb**	1	**7.426**	ug/l	74.26	1.5	5000	209	P	
238	**U**	1	**0.404**	ug/l	4.04	5.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129054	0.57	174500	**74.0**	30	-	125	
45	Sc	1	1843414	2.66	2091000	**88.2**	30	-	125	
74	Ge	1	4125455	0.70	4536000	**90.9**	30	-	125	
103	Rh	1	5524313	1.04	6076000	**90.9**	30	-	125	
165	Ho	1	2559048	1.89	2580000	**99.2**	30	-	125	
175	Lu	1	2118862	0.65	2136000	**99.2**	30	-	125	
209	Bi	1	2574999	1.53	2616000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\068SMPL.D\068SMPL.D#
Date Acquired: Sep 27 2011 12:52 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-23-B Vial Number: 3101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.519**	ug/l	5.19	10.9	5000	6	P	
23	**Na**	1	**159.500**	ug/l	1,595.00	4.7	500000	45	P	
24	**Mg**	1	**9089.000**	ug/l	90,890.00	1.5	500000	45	A	
27	**Al**	1	**38690.000**	ug/l	386,900.00	1.9	500000	45	A	
31	**P**	1	**833.300**	ug/l	8,333.00	1.2	500000	45	P	
39	**K**	1	**862.000**	ug/l	8,620.00	4.1	500000	45	A	
44	**Ca**	1	**1345.000**	ug/l	13,450.00	1.4	500000	45	P	
47	**Ti**	1	**1083.000**	ug/l	10,830.00	1.1	5000	45	P	
51	**V**	1	**87.210**	ug/l	872.10	1.2	5000	45	P	
52	**Cr**	1	**78.560**	ug/l	785.60	2.2	5000	45	P	
55	**Mn**	1	**590.200**	ug/l	5,902.00	1.3	5000	45	A	
57	**Fe**	1	**42720.000**	ug/l	427,200.00	0.7	500000	74	A	
59	**Co**	1	**14.190**	ug/l	141.90	1.0	5000	45	P	
60	**Ni**	1	**59.070**	ug/l	590.70	1.9	5000	74	P	
63	**Cu**	1	**51.010**	ug/l	510.10	1.9	5000	74	P	
66	**Zn**	1	**94.750**	ug/l	947.50	0.7	5000	74	P	
75	**As**	1	**25.290**	ug/l	252.90	0.6	5000	74	P	
78	**Se**	1	**1.356**	ug/l	13.56	7.1	5000	74	P	
88	**Sr**	1	**10.710**	ug/l	107.10	1.1	5000	74	P	
95	**Mo**	1	**1.308**	ug/l	13.08	2.0	5000	103	P	
109	**Ag**	1	**0.481**	ug/l	4.81	1.1	200	103	P	
111	**Cd**	1	**0.458**	ug/l	4.58	4.4	5000	103	P	
118	**Sn**	1	**1.538**	ug/l	15.38	2.9	5000	103	P	
123	**Sb**	1	**0.518**	ug/l	5.18	8.3	5000	103	P	
135	**Ba**	1	**109.000**	ug/l	1,090.00	1.1	5000	103	P	
200	**Hg**	1	**0.220**	ug/l	2.20	5.4	50	209	P	
205	**Tl**	1	**0.237**	ug/l	2.37	2.5	5000	103	P	
208	**Pb**	1	**16.770**	ug/l	167.70	0.7	5000	209	P	
238	**U**	1	**0.638**	ug/l	6.38	1.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	128377	2.06	174500	**73.6**	30	-	125	
45	Sc	1	1865348	0.53	2091000	**89.2**	30	-	125	
74	Ge	1	4081094	0.32	4536000	**90.0**	30	-	125	
103	Rh	1	5481704	0.79	6076000	**90.2**	30	-	125	
165	Ho	1	2538126	0.59	2580000	**98.4**	30	-	125	
175	Lu	1	2144016	1.87	2136000	**100.4**	30	-	125	
209	Bi	1	2515580	0.57	2616000	**96.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\069SMPL.D\069SMPL.D#
Date Acquired: Sep 27 2011 12:56 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-24-B Vial Number: 3102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.095**	ug/l	0.95	2.6	5000	6	P	
23	**Na**	1	**217.100**	ug/l	2,171.00	7.2	500000	45	P	
24	**Mg**	1	**337.500**	ug/l	3,375.00	2.9	500000	45	P	
27	**Al**	1	**6560.000**	ug/l	65,600.00	2.3	500000	45	A	
31	**P**	1	**310.900**	ug/l	3,109.00	1.2	500000	45	P	
39	**K**	1	**203.000**	ug/l	2,030.00	0.9	500000	45	P	
44	**Ca**	1	**260.100**	ug/l	2,601.00	1.5	500000	45	P	
47	**Ti**	1	**549.200**	ug/l	5,492.00	2.2	5000	45	P	
51	**V**	1	**31.120**	ug/l	311.20	2.3	5000	45	P	
52	**Cr**	1	**7.441**	ug/l	74.41	1.6	5000	45	P	
55	**Mn**	1	**43.850**	ug/l	438.50	1.8	5000	45	P	
57	**Fe**	1	**10960.000**	ug/l	109,600.00	1.1	500000	74	A	
59	**Co**	1	**1.855**	ug/l	18.55	3.9	5000	45	P	
60	**Ni**	1	**5.263**	ug/l	52.63	1.6	5000	74	P	
63	**Cu**	1	**9.958**	ug/l	99.58	2.6	5000	74	P	
66	**Zn**	1	**19.270**	ug/l	192.70	2.9	5000	74	P	
75	**As**	1	**5.403**	ug/l	54.03	2.1	5000	74	P	
78	**Se**	1	**0.431**	ug/l	4.31	11.0	5000	74	P	
88	**Sr**	1	**5.022**	ug/l	50.22	5.2	5000	74	P	
95	**Mo**	1	**0.508**	ug/l	5.08	5.2	5000	103	P	
109	**Ag**	1	**0.272**	ug/l	2.72	4.8	200	103	P	
111	**Cd**	1	**0.123**	ug/l	1.23	50.5	5000	103	P	
118	**Sn**	1	**1.356**	ug/l	13.56	1.8	5000	103	P	
123	**Sb**	1	**0.158**	ug/l	1.58	7.2	5000	103	P	
135	**Ba**	1	**19.600**	ug/l	196.00	3.4	5000	103	P	
200	**Hg**	1	**0.116**	ug/l	1.16	8.7	50	209	P	
205	**Tl**	1	**0.083**	ug/l	0.83	8.2	5000	103	P	
208	**Pb**	1	**7.329**	ug/l	73.29	3.0	5000	209	P	
238	**U**	1	**0.236**	ug/l	2.36	1.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129602	0.62	174500	**74.3**	30	-	125	
45	Sc	1	1849914	1.16	2091000	**88.5**	30	-	125	
74	Ge	1	4173822	1.21	4536000	**92.0**	30	-	125	
103	Rh	1	5721594	2.10	6076000	**94.2**	30	-	125	
165	Ho	1	2583424	2.61	2580000	**100.1**	30	-	125	
175	Lu	1	2146695	1.59	2136000	**100.5**	30	-	125	
209	Bi	1	2614825	1.88	2616000	**100.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\070SMPL.D\070SMPL.D#
Date Acquired: Sep 27 2011 01:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-25-B Vial Number: 3103
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.714**	ug/l	7.14	6.4	5000	6	P	
23	**Na**	1	**173.400**	ug/l	1,734.00	5.8	500000	45	P	
24	**Mg**	1	**5085.000**	ug/l	50,850.00	2.6	500000	45	A	
27	**Al**	1	**37990.000**	ug/l	379,900.00	0.7	500000	45	A	
31	**P**	1	**632.700**	ug/l	6,327.00	2.2	500000	45	P	
39	**K**	1	**775.300**	ug/l	7,753.00	1.4	500000	45	A	
44	**Ca**	1	**960.200**	ug/l	9,602.00	0.9	500000	45	P	
47	**Ti**	1	**1155.000**	ug/l	11,550.00	0.7	5000	45	P	
51	**V**	1	**103.700**	ug/l	1,037.00	0.8	5000	45	A	
52	**Cr**	1	**51.840**	ug/l	518.40	0.5	5000	45	P	
55	**Mn**	1	**235.800**	ug/l	2,358.00	0.8	5000	45	A	
57	**Fe**	1	**46400.000**	ug/l	464,000.00	1.1	500000	74	A	
59	**Co**	1	**8.713**	ug/l	87.13	2.4	5000	45	P	
60	**Ni**	1	**33.590**	ug/l	335.90	0.9	5000	74	P	
63	**Cu**	1	**31.230**	ug/l	312.30	2.3	5000	74	P	
66	**Zn**	1	**74.250**	ug/l	742.50	0.8	5000	74	P	
75	**As**	1	**45.640**	ug/l	456.40	1.6	5000	74	P	
78	**Se**	1	**1.794**	ug/l	17.94	1.6	5000	74	P	
88	**Sr**	1	**10.740**	ug/l	107.40	1.4	5000	74	P	
95	**Mo**	1	**2.646**	ug/l	26.46	1.8	5000	103	P	
109	**Ag**	1	**0.313**	ug/l	3.13	6.4	200	103	P	
111	**Cd**	1	**0.336**	ug/l	3.36	7.9	5000	103	P	
118	**Sn**	1	**2.451**	ug/l	24.51	2.4	5000	103	P	
123	**Sb**	1	**0.718**	ug/l	7.18	1.8	5000	103	P	
135	**Ba**	1	**65.800**	ug/l	658.00	2.3	5000	103	P	
200	**Hg**	1	**0.402**	ug/l	4.02	6.2	50	209	P	
205	**Tl**	1	**0.173**	ug/l	1.73	7.5	5000	103	P	
208	**Pb**	1	**42.120**	ug/l	421.20	1.5	5000	209	P	
238	**U**	1	**0.538**	ug/l	5.38	2.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129118	1.48	174500	**74.0**	30	-	125	
45	Sc	1	1867270	0.85	2091000	**89.3**	30	-	125	
74	Ge	1	4107360	1.12	4536000	**90.6**	30	-	125	
103	Rh	1	5443804	0.77	6076000	**89.6**	30	-	125	
165	Ho	1	2523802	1.52	2580000	**97.8**	30	-	125	
175	Lu	1	2110342	0.81	2136000	**98.8**	30	-	125	
209	Bi	1	2545369	0.66	2616000	**97.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\071SMPL.D\071SMPL.D#
Date Acquired: Sep 27 2011 01:05 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-26-B Vial Number: 3104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.070**	ug/l	0.70	28.3	5000	6	P	
23	**Na**	1	**136.100**	ug/l	1,361.00	4.8	500000	45	P	
24	**Mg**	1	**442.900**	ug/l	4,429.00	5.1	500000	45	P	
27	**Al**	1	**5591.000**	ug/l	55,910.00	3.6	500000	45	A	
31	**P**	1	**198.800**	ug/l	1,988.00	6.3	500000	45	P	
39	**K**	1	**257.500**	ug/l	2,575.00	4.9	500000	45	P	
44	**Ca**	1	**181.100**	ug/l	1,811.00	2.0	500000	45	P	
47	**Ti**	1	**827.700**	ug/l	8,277.00	2.2	5000	45	P	
51	**V**	1	**82.070**	ug/l	820.70	2.1	5000	45	P	
52	**Cr**	1	**36.930**	ug/l	369.30	2.8	5000	45	P	
55	**Mn**	1	**54.330**	ug/l	543.30	2.5	5000	45	P	
57	**Fe**	1	**15030.000**	ug/l	150,300.00	1.6	500000	74	A	
59	**Co**	1	**2.536**	ug/l	25.36	3.5	5000	45	P	
60	**Ni**	1	**11.810**	ug/l	118.10	1.8	5000	74	P	
63	**Cu**	1	**18.470**	ug/l	184.70	0.4	5000	74	P	
66	**Zn**	1	**19.660**	ug/l	196.60	1.9	5000	74	P	
75	**As**	1	**34.720**	ug/l	347.20	1.5	5000	74	P	
78	**Se**	1	**0.341**	ug/l	3.41	55.6	5000	74	P	
88	**Sr**	1	**7.203**	ug/l	72.03	0.2	5000	74	P	
95	**Mo**	1	**4.601**	ug/l	46.01	2.0	5000	103	P	
109	**Ag**	1	**0.144**	ug/l	1.44	3.6	200	103	P	
111	**Cd**	1	**0.107**	ug/l	1.07	25.0	5000	103	P	
118	**Sn**	1	**1.834**	ug/l	18.34	1.2	5000	103	P	
123	**Sb**	1	**0.277**	ug/l	2.77	4.4	5000	103	P	
135	**Ba**	1	**20.230**	ug/l	202.30	1.5	5000	103	P	
200	**Hg**	1	**0.096**	ug/l	0.96	9.3	50	209	P	
205	**Tl**	1	**0.104**	ug/l	1.04	7.2	5000	103	P	
208	**Pb**	1	**4.484**	ug/l	44.84	2.8	5000	209	P	
238	**U**	1	**0.174**	ug/l	1.74	5.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129102	1.31	174500	**74.0**	30	-	125	
45	Sc	1	1892667	2.13	2091000	**90.5**	30	-	125	
74	Ge	1	4229109	0.48	4536000	**93.2**	30	-	125	
103	Rh	1	5651588	1.38	6076000	**93.0**	30	-	125	
165	Ho	1	2567225	1.19	2580000	**99.5**	30	-	125	
175	Lu	1	2162296	0.79	2136000	**101.2**	30	-	125	
209	Bi	1	2607643	1.44	2616000	**99.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\072SMPL.D\072SMPL.D#
Date Acquired: Sep 27 2011 01:09 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-27-B Vial Number: 3105
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.510**	ug/l	5.10	4.1	5000	6	P	
23	**Na**	1	**111.800**	ug/l	1,118.00	11.3	500000	45	P	
24	**Mg**	1	**4904.000**	ug/l	49,040.00	1.0	500000	45	A	
27	**Al**	1	**32720.000**	ug/l	327,200.00	0.6	500000	45	A	
31	**P**	1	**534.000**	ug/l	5,340.00	1.4	500000	45	P	
39	**K**	1	**569.000**	ug/l	5,690.00	0.3	500000	45	A	
44	**Ca**	1	**704.100**	ug/l	7,041.00	1.0	500000	45	P	
47	**Ti**	1	**772.200**	ug/l	7,722.00	1.2	5000	45	P	
51	**V**	1	**65.150**	ug/l	651.50	1.3	5000	45	P	
52	**Cr**	1	**39.420**	ug/l	394.20	1.4	5000	45	P	
55	**Mn**	1	**211.500**	ug/l	2,115.00	0.6	5000	45	A	
57	**Fe**	1	**33180.000**	ug/l	331,800.00	0.4	500000	74	A	
59	**Co**	1	**7.086**	ug/l	70.86	1.2	5000	45	P	
60	**Ni**	1	**30.790**	ug/l	307.90	0.8	5000	74	P	
63	**Cu**	1	**27.400**	ug/l	274.00	0.1	5000	74	P	
66	**Zn**	1	**62.210**	ug/l	622.10	0.5	5000	74	P	
75	**As**	1	**30.110**	ug/l	301.10	0.6	5000	74	P	
78	**Se**	1	**1.380**	ug/l	13.80	4.0	5000	74	P	
88	**Sr**	1	**8.253**	ug/l	82.53	2.9	5000	74	P	
95	**Mo**	1	**1.989**	ug/l	19.89	3.2	5000	103	P	
109	**Ag**	1	**0.175**	ug/l	1.75	0.5	200	103	P	
111	**Cd**	1	**0.472**	ug/l	4.72	8.0	5000	103	P	
118	**Sn**	1	**1.822**	ug/l	18.22	1.0	5000	103	P	
123	**Sb**	1	**0.647**	ug/l	6.47	1.7	5000	103	P	
135	**Ba**	1	**54.470**	ug/l	544.70	0.9	5000	103	P	
200	**Hg**	1	**0.313**	ug/l	3.13	4.9	50	209	P	
205	**Tl**	1	**0.116**	ug/l	1.16	6.7	5000	103	P	
208	**Pb**	1	**33.980**	ug/l	339.80	1.7	5000	209	P	
238	**U**	1	**0.403**	ug/l	4.03	0.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129518	2.79	174500	**74.2**	30	-	125	
45	Sc	1	1864009	1.61	2091000	**89.1**	30	-	125	
74	Ge	1	4153450	1.05	4536000	**91.6**	30	-	125	
103	Rh	1	5474005	0.88	6076000	**90.1**	30	-	125	
165	Ho	1	2544060	0.88	2580000	**98.6**	30	-	125	
175	Lu	1	2154929	1.41	2136000	**100.9**	30	-	125	
209	Bi	1	2537997	0.50	2616000	**97.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\073SMPL.D\073SMPL.D#
Date Acquired: Sep 27 2011 01:14 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-28-B Vial Number: 3106
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.663**	ug/l	6.63	2.8	5000	6	P	
23	**Na**	1	**166.700**	ug/l	1,667.00	1.2	500000	45	P	
24	**Mg**	1	**8591.000**	ug/l	85,910.00	2.3	500000	45	A	
27	**Al**	1	**41340.000**	ug/l	413,400.00	2.4	500000	45	A	
31	**P**	1	**911.500**	ug/l	9,115.00	4.3	500000	45	P	
39	**K**	1	**964.500**	ug/l	9,645.00	1.5	500000	45	A	
44	**Ca**	1	**1115.000**	ug/l	11,150.00	2.6	500000	45	P	
47	**Ti**	1	**1216.000**	ug/l	12,160.00	3.0	5000	45	P	
51	**V**	1	**97.920**	ug/l	979.20	2.8	5000	45	P	
52	**Cr**	1	**80.590**	ug/l	805.90	2.5	5000	45	P	
55	**Mn**	1	**684.800**	ug/l	6,848.00	2.0	5000	45	A	
57	**Fe**	1	**48200.000**	ug/l	482,000.00	1.1	500000	74	A	
59	**Co**	1	**13.920**	ug/l	139.20	2.2	5000	45	P	
60	**Ni**	1	**51.640**	ug/l	516.40	1.7	5000	74	P	
63	**Cu**	1	**44.220**	ug/l	442.20	1.1	5000	74	P	
66	**Zn**	1	**85.550**	ug/l	855.50	3.1	5000	74	P	
75	**As**	1	**22.420**	ug/l	224.20	2.1	5000	74	P	
78	**Se**	1	**1.646**	ug/l	16.46	4.7	5000	74	P	
88	**Sr**	1	**9.559**	ug/l	95.59	2.5	5000	74	P	
95	**Mo**	1	**1.443**	ug/l	14.43	7.1	5000	103	P	
109	**Ag**	1	**0.792**	ug/l	7.92	3.9	200	103	P	
111	**Cd**	1	**0.515**	ug/l	5.15	18.0	5000	103	P	
118	**Sn**	1	**1.826**	ug/l	18.26	1.7	5000	103	P	
123	**Sb**	1	**0.422**	ug/l	4.22	3.6	5000	103	P	
135	**Ba**	1	**104.400**	ug/l	1,044.00	0.2	5000	103	P	
200	**Hg**	1	**0.223**	ug/l	2.23	3.7	50	209	P	
205	**Tl**	1	**0.246**	ug/l	2.46	7.0	5000	103	P	
208	**Pb**	1	**21.850**	ug/l	218.50	1.8	5000	209	P	
238	**U**	1	**0.737**	ug/l	7.37	2.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	126125	0.42	174500	**72.3**	30	-	125	
45	Sc	1	1845102	2.26	2091000	**88.2**	30	-	125	
74	Ge	1	4075674	0.64	4536000	**89.9**	30	-	125	
103	Rh	1	5436266	0.71	6076000	**89.5**	30	-	125	
165	Ho	1	2515005	1.01	2580000	**97.5**	30	-	125	
175	Lu	1	2101044	1.50	2136000	**98.4**	30	-	125	
209	Bi	1	2535069	0.34	2616000	**96.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\074SMPL.D\074SMPL.D#
Date Acquired: Sep 27 2011 01:18 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-41-B Vial Number: 3111
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.013**	ug/l	12.83	45.9	5000	6	P	
23	**Na**	1	**-4.030**	ug/l	-4,030.00	28.9	500000	45	P	
24	**Mg**	1	**98.480**	ug/l	98,480.00	1.1	500000	45	P	
27	**Al**	1	**405.700**	ug/l	405,700.00	1.6	500000	45	P	
31	**P**	1	**12.330**	ug/l	12,330.00	13.7	500000	45	P	
39	**K**	1	**13.630**	ug/l	13,630.00	14.6	500000	45	P	
44	**Ca**	1	**32.360**	ug/l	32,360.00	4.1	500000	45	P	
47	**Ti**	1	**6.354**	ug/l	6,354.00	2.9	5000	45	P	
51	**V**	1	**0.883**	ug/l	882.90	3.1	5000	45	P	
52	**Cr**	1	**0.311**	ug/l	310.80	11.4	5000	45	P	
55	**Mn**	1	**96.830**	ug/l	96,830.00	1.5	5000	45	P	
57	**Fe**	1	**1333.000**	ug/l	1,333,000.00	1.0	500000	74	P	
59	**Co**	1	**0.815**	ug/l	815.40	1.6	5000	45	P	
60	**Ni**	1	**0.355**	ug/l	355.30	6.1	5000	74	P	
63	**Cu**	1	**5.400**	ug/l	5,400.00	0.8	5000	74	P	
66	**Zn**	1	**38.780**	ug/l	38,780.00	0.8	5000	74	P	
75	**As**	1	**50.710**	ug/l	50,710.00	0.5	5000	74	P	
78	**Se**	1	**0.012**	ug/l	11.77	418.2	5000	74	P	
88	**Sr**	1	**0.115**	ug/l	115.40	10.5	5000	74	P	
95	**Mo**	1	**0.018**	ug/l	18.31	47.2	5000	103	P	
109	**Ag**	1	**0.194**	ug/l	193.80	3.8	200	103	P	
111	**Cd**	1	**0.300**	ug/l	300.20	16.4	5000	103	P	
118	**Sn**	1	**0.046**	ug/l	45.61	18.4	5000	103	P	
123	**Sb**	1	**0.110**	ug/l	109.60	6.7	5000	103	P	
135	**Ba**	1	**1.022**	ug/l	1,022.00	4.8	5000	103	P	
200	**Hg**	1	**0.020**	ug/l	19.55	27.5	50	209	P	
205	**Tl**	1	**0.030**	ug/l	30.13	24.0	5000	103	P	
208	**Pb**	1	**28.470**	ug/l	28,470.00	3.2	5000	209	P	
238	**U**	1	**0.003**	ug/l	2.65	15.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130160	1.08	174500	**74.6**	30	-	125	
45	Sc	1	1890299	1.60	2091000	**90.4**	30	-	125	
74	Ge	1	4228387	0.64	4536000	**93.2**	30	-	125	
103	Rh	1	5752470	0.68	6076000	**94.7**	30	-	125	
165	Ho	1	2594726	0.55	2580000	**100.6**	30	-	125	
175	Lu	1	2183349	1.53	2136000	**102.2**	30	-	125	
209	Bi	1	2643519	1.69	2616000	**101.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\075SMPL.D\075SMPL.D#
Date Acquired: Sep 27 2011 01:23 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-42-B Vial Number: 3112
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	3.88	72.9	5000	6	P	
23	**Na**	1	**-4.473**	ug/l	-4,473.00	27.0	500000	45	P	
24	**Mg**	1	**127.000**	ug/l	127,000.00	3.4	500000	45	P	
27	**Al**	1	**211.000**	ug/l	211,000.00	2.3	500000	45	P	
31	**P**	1	**4.848**	ug/l	4,848.00	43.8	500000	45	P	
39	**K**	1	**25.990**	ug/l	25,990.00	19.1	500000	45	P	
44	**Ca**	1	**10.700**	ug/l	10,700.00	5.4	500000	45	P	
47	**Ti**	1	**2.554**	ug/l	2,554.00	4.0	5000	45	P	
51	**V**	1	**0.512**	ug/l	512.10	5.0	5000	45	P	
52	**Cr**	1	**0.314**	ug/l	314.40	11.9	5000	45	P	
55	**Mn**	1	**34.550**	ug/l	34,550.00	1.8	5000	45	P	
57	**Fe**	1	**1373.000**	ug/l	1,373,000.00	0.5	500000	74	P	
59	**Co**	1	**0.207**	ug/l	206.60	5.5	5000	45	P	
60	**Ni**	1	**0.281**	ug/l	281.30	13.9	5000	74	P	
63	**Cu**	1	**2.239**	ug/l	2,239.00	2.7	5000	74	P	
66	**Zn**	1	**21.510**	ug/l	21,510.00	1.3	5000	74	P	
75	**As**	1	**45.390**	ug/l	45,390.00	0.7	5000	74	P	
78	**Se**	1	**0.048**	ug/l	47.55	141.6	5000	74	P	
88	**Sr**	1	**0.045**	ug/l	44.86	27.3	5000	74	P	
95	**Mo**	1	**0.006**	ug/l	5.68	200.3	5000	103	P	
109	**Ag**	1	**0.096**	ug/l	96.29	8.2	200	103	P	
111	**Cd**	1	**0.019**	ug/l	18.69	45.1	5000	103	P	
118	**Sn**	1	**0.026**	ug/l	26.49	23.4	5000	103	P	
123	**Sb**	1	**0.065**	ug/l	64.57	11.3	5000	103	P	
135	**Ba**	1	**0.610**	ug/l	610.00	7.9	5000	103	P	
200	**Hg**	1	**0.020**	ug/l	20.19	8.5	50	209	P	
205	**Tl**	1	**0.028**	ug/l	27.62	24.4	5000	103	P	
208	**Pb**	1	**16.020**	ug/l	16,020.00	1.4	5000	209	P	
238	**U**	1	**0.001**	ug/l	0.58	144.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129051	1.81	174500	**74.0**	30	-	125	
45	Sc	1	1876430	1.92	2091000	**89.7**	30	-	125	
74	Ge	1	4225841	0.53	4536000	**93.2**	30	-	125	
103	Rh	1	5789364	0.21	6076000	**95.3**	30	-	125	
165	Ho	1	2608263	0.72	2580000	**101.1**	30	-	125	
175	Lu	1	2171368	0.97	2136000	**101.7**	30	-	125	
209	Bi	1	2658930	0.47	2616000	**101.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\076SMPL.D\076SMPL.D#
Date Acquired: Sep 27 2011 01:27 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**51.390**	ug/l	51.39	0.9	5000	6	P	
23	Na	1	**4605.000**	ug/l	4,605.00	1.1	500000	45	A	
24	Mg	1	**4610.000**	ug/l	4,610.00	0.7	500000	45	A	
27	Al	1	**457.400**	ug/l	457.40	1.1	500000	45	P	
31	P	1	**4596.000**	ug/l	4,596.00	1.3	500000	45	P	
39	K	1	**4899.000**	ug/l	4,899.00	2.2	500000	45	A	
44	Ca	1	**4901.000**	ug/l	4,901.00	0.9	500000	45	P	
47	Ti	1	**49.280**	ug/l	49.28	1.7	5000	45	P	
51	V	1	**48.380**	ug/l	48.38	1.8	5000	45	P	
52	Cr	1	**48.510**	ug/l	48.51	1.5	5000	45	P	
55	Mn	1	**50.650**	ug/l	50.65	1.2	5000	45	P	
57	Fe	1	**4869.000**	ug/l	4,869.00	1.5	500000	74	A	
59	Co	1	**49.000**	ug/l	49.00	1.4	5000	45	P	
60	Ni	1	**48.970**	ug/l	48.97	1.3	5000	74	P	
63	Cu	1	**48.950**	ug/l	48.95	1.5	5000	74	P	
66	Zn	1	**49.640**	ug/l	49.64	2.0	5000	74	P	
75	As	1	**49.230**	ug/l	49.23	1.4	5000	74	P	
78	Se	1	**48.580**	ug/l	48.58	1.0	5000	74	P	
88	Sr	1	**50.150**	ug/l	50.15	0.4	5000	74	P	
95	Mo	1	**48.670**	ug/l	48.67	0.8	5000	103	P	
109	Ag	1	**48.320**	ug/l	48.32	0.8	200	103	P	
111	Cd	1	**49.700**	ug/l	49.70	1.1	5000	103	P	
118	Sn	1	**49.890**	ug/l	49.89	0.5	5000	103	P	
123	Sb	1	**50.260**	ug/l	50.26	1.1	5000	103	P	
135	Ba	1	**51.120**	ug/l	51.12	0.8	5000	103	P	
200	Hg	1	**2.399**	ug/l	2.40	3.5	50	209	P	
205	Tl	1	**49.880**	ug/l	49.88	5.3	5000	103	M	
208	Pb	1	**49.030**	ug/l	49.03	1.0	5000	209	P	
238	U	1	**48.990**	ug/l	48.99	1.4	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129444	1.52	174500	**74.2**	30	-	125	
45	Sc	1	1895463	1.72	2091000	**90.6**	30	-	125	
74	Ge	1	4236378	0.77	4536000	**93.4**	30	-	125	
103	Rh	1	5681235	0.25	6076000	**93.5**	30	-	125	
165	Ho	1	2581643	0.62	2580000	**100.1**	30	-	125	
175	Lu	1	2179068	1.12	2136000	**102.0**	30	-	125	
209	Bi	1	2575446	0.86	2616000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\077SMPL.D\077SMPL.D#
Date Acquired: Sep 27 2011 01:31 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.01	63.0	5000	6	P	
23	**Na**	1	**-4.934**	ug/l	-4.93	24.2	500000	45	P	
24	**Mg**	1	**0.101**	ug/l	0.10	30.8	500000	45	P	
27	**Al**	1	**-0.058**	ug/l	-0.06	148.4	500000	45	P	
31	**P**	1	**-7.093**	ug/l	-7.09	10.0	500000	45	P	
39	**K**	1	**-1.067**	ug/l	-1.07	164.4	500000	45	P	
44	**Ca**	1	**-1.286**	ug/l	-1.29	16.4	500000	45	P	
47	**Ti**	1	**0.127**	ug/l	0.13	40.6	5000	45	P	
51	**V**	1	**-0.017**	ug/l	-0.02	74.4	5000	45	P	
52	**Cr**	1	**0.177**	ug/l	0.18	15.8	5000	45	P	
55	**Mn**	1	**0.071**	ug/l	0.07	21.6	5000	45	P	
57	**Fe**	1	**2.474**	ug/l	2.47	19.7	500000	74	P	
59	**Co**	1	**-0.001**	ug/l	0.00	164.6	5000	45	P	
60	**Ni**	1	**0.030**	ug/l	0.03	30.2	5000	74	P	
63	**Cu**	1	**-0.047**	ug/l	-0.05	40.0	5000	74	P	
66	**Zn**	1	**0.008**	ug/l	0.01	351.7	5000	74	P	
75	**As**	1	**-0.002**	ug/l	0.00	546.6	5000	74	P	
78	**Se**	1	**0.095**	ug/l	0.09	70.3	5000	74	P	
88	**Sr**	1	**-0.010**	ug/l	-0.01	79.5	5000	74	P	
95	**Mo**	1	**0.078**	ug/l	0.08	26.7	5000	103	P	
109	**Ag**	1	**-0.002**	ug/l	0.00	46.1	200	103	P	
111	**Cd**	1	**-0.012**	ug/l	-0.01	28.0	5000	103	P	
118	**Sn**	1	**0.158**	ug/l	0.16	19.6	5000	103	P	
123	**Sb**	1	**0.031**	ug/l	0.03	30.2	5000	103	P	
135	**Ba**	1	**0.009**	ug/l	0.01	179.3	5000	103	P	
200	**Hg**	1	**0.020**	ug/l	0.02	24.6	50	209	P	
205	**Tl**	1	**0.257**	ug/l	0.26	5.4	5000	103	P	
208	**Pb**	1	**-0.014**	ug/l	-0.01	71.1	5000	209	P	
238	**U**	1	**0.007**	ug/l	0.01	31.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131424	1.22	174500	**75.3**	30	-	125	
45	Sc	1	1883749	2.41	2091000	**90.1**	30	-	125	
74	Ge	1	4234735	1.04	4536000	**93.4**	30	-	125	
103	Rh	1	5812361	1.60	6076000	**95.7**	30	-	125	
165	Ho	1	2574747	1.10	2580000	**99.8**	30	-	125	
175	Lu	1	2145182	1.36	2136000	**100.4**	30	-	125	
209	Bi	1	2677168	1.27	2616000	**102.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\078SMPL.D\078SMPL.D#
Date Acquired: Sep 27 2011 01:36 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-29-B Vial Number: 3107
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.918**	ug/l	9.18	10.4	5000	6	P	
23	**Na**	1	**144.000**	ug/l	1,440.00	9.1	500000	45	P	
24	**Mg**	1	**6125.000**	ug/l	61,250.00	1.1	500000	45	A	
27	**Al**	1	**36330.000**	ug/l	363,300.00	2.7	500000	45	A	
31	**P**	1	**712.400**	ug/l	7,124.00	1.1	500000	45	P	
39	**K**	1	**552.200**	ug/l	5,522.00	3.0	500000	45	A	
44	**Ca**	1	**1034.000**	ug/l	10,340.00	1.0	500000	45	P	
47	**Ti**	1	**1032.000**	ug/l	10,320.00	3.1	5000	45	P	
51	**V**	1	**81.730**	ug/l	817.30	1.9	5000	45	P	
52	**Cr**	1	**55.630**	ug/l	556.30	2.4	5000	45	P	
55	**Mn**	1	**404.900**	ug/l	4,049.00	3.3	5000	45	A	
57	**Fe**	1	**44140.000**	ug/l	441,400.00	0.8	500000	74	A	
59	**Co**	1	**13.920**	ug/l	139.20	3.1	5000	45	P	
60	**Ni**	1	**38.680**	ug/l	386.80	1.8	5000	74	P	
63	**Cu**	1	**26.360**	ug/l	263.60	0.6	5000	74	P	
66	**Zn**	1	**60.510**	ug/l	605.10	1.7	5000	74	P	
75	**As**	1	**21.760**	ug/l	217.60	1.4	5000	74	P	
78	**Se**	1	**1.510**	ug/l	15.10	6.2	5000	74	P	
88	**Sr**	1	**11.250**	ug/l	112.50	0.6	5000	74	P	
95	**Mo**	1	**2.908**	ug/l	29.08	0.3	5000	103	P	
109	**Ag**	1	**0.259**	ug/l	2.59	5.7	200	103	P	
111	**Cd**	1	**0.374**	ug/l	3.74	8.4	5000	103	P	
118	**Sn**	1	**1.633**	ug/l	16.33	3.3	5000	103	P	
123	**Sb**	1	**0.380**	ug/l	3.80	5.4	5000	103	P	
135	**Ba**	1	**66.020**	ug/l	660.20	1.2	5000	103	P	
200	**Hg**	1	**0.174**	ug/l	1.74	0.7	50	209	P	
205	**Tl**	1	**0.225**	ug/l	2.25	5.0	5000	103	P	
208	**Pb**	1	**12.880**	ug/l	128.80	2.3	5000	209	P	
238	**U**	1	**0.680**	ug/l	6.80	2.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	125222	0.65	174500	**71.8**	30 - 125	
45	Sc	1	1865253	1.47	2091000	**89.2**	30 - 125	
74	Ge	1	4105047	1.13	4536000	**90.5**	30 - 125	
103	Rh	1	5494313	0.74	6076000	**90.4**	30 - 125	
165	Ho	1	2525309	1.47	2580000	**97.9**	30 - 125	
175	Lu	1	2116075	1.59	2136000	**99.1**	30 - 125	
209	Bi	1	2523452	0.98	2616000	**96.5**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\079SMPL.D\079SMPL.D#
Date Acquired: Sep 27 2011 01:40 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-30-B Vial Number: 3108
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.668**	ug/l	6.68	7.4	5000	6	P	
23	**Na**	1	**572.900**	ug/l	5,729.00	1.4	500000	45	A	
24	**Mg**	1	**12020.000**	ug/l	120,200.00	2.3	500000	45	A	
27	**Al**	1	**39030.000**	ug/l	390,300.00	0.1	500000	45	A	
31	**P**	1	**1438.000**	ug/l	14,380.00	1.4	500000	45	P	
39	**K**	1	**2780.000**	ug/l	27,800.00	0.7	500000	45	A	
44	**Ca**	1	**4119.000**	ug/l	41,190.00	1.0	500000	45	P	
47	**Ti**	1	**1513.000**	ug/l	15,130.00	1.0	5000	45	P	
51	**V**	1	**156.600**	ug/l	1,566.00	0.4	5000	45	A	
52	**Cr**	1	**20.880**	ug/l	208.80	1.7	5000	45	P	
55	**Mn**	1	**4367.000**	ug/l	43,670.00	1.6	5000	45	A	
57	**Fe**	1	**94500.000**	ug/l	945,000.00	0.6	500000	74	A	
59	**Co**	1	**89.750**	ug/l	897.50	2.0	5000	45	A	
60	**Ni**	1	**12.920**	ug/l	129.20	0.3	5000	74	P	
63	**Cu**	1	**339.600**	ug/l	3,396.00	1.8	5000	74	A	
66	**Zn**	1	**476.500**	ug/l	4,765.00	1.0	5000	74	P	
75	**As**	1	**686.900**	ug/l	6,869.00	0.2	5000	74	A	
78	**Se**	1	**3.216**	ug/l	32.16	4.9	5000	74	P	
88	**Sr**	1	**19.290**	ug/l	192.90	1.1	5000	74	P	
95	**Mo**	1	**25.300**	ug/l	253.00	1.4	5000	103	P	
109	**Ag**	1	**1.273**	ug/l	12.73	1.5	200	103	P	
111	**Cd**	1	**1.122**	ug/l	11.22	6.8	5000	103	P	
118	**Sn**	1	**1.408**	ug/l	14.08	1.1	5000	103	P	
123	**Sb**	1	**12.840**	ug/l	128.40	1.8	5000	103	P	
135	**Ba**	1	**129.500**	ug/l	1,295.00	1.7	5000	103	P	
200	**Hg**	1	**0.251**	ug/l	2.51	1.7	50	209	P	
205	**Tl**	1	**0.500**	ug/l	5.00	3.0	5000	103	P	
208	**Pb**	1	**162.900**	ug/l	1,629.00	0.9	5000	209	A	
238	**U**	1	**8.040**	ug/l	80.40	1.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	125865	1.61	174500	**72.1**	30 - 125	
45	Sc	1	1863443	1.71	2091000	**89.1**	30 - 125	
74	Ge	1	4074785	0.28	4536000	**89.8**	30 - 125	
103	Rh	1	5345636	0.84	6076000	**88.0**	30 - 125	
165	Ho	1	2489855	0.58	2580000	**96.5**	30 - 125	
175	Lu	1	2088679	0.42	2136000	**97.8**	30 - 125	
209	Bi	1	2491394	0.16	2616000	**95.2**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\080SMPL.D\080SMPL.D#
Date Acquired: Sep 27 2011 01:44 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-31-B Vial Number: 3109
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.496**	ug/l	4.96	7.7	5000	6	P	
23	**Na**	1	**472.400**	ug/l	4,724.00	2.1	500000	45	A	
24	**Mg**	1	**9755.000**	ug/l	97,550.00	0.6	500000	45	A	
27	**Al**	1	**33400.000**	ug/l	334,000.00	0.6	500000	45	A	
31	**P**	1	**1508.000**	ug/l	15,080.00	0.7	500000	45	P	
39	**K**	1	**2644.000**	ug/l	26,440.00	1.3	500000	45	A	
44	**Ca**	1	**2363.000**	ug/l	23,630.00	0.9	500000	45	P	
47	**Ti**	1	**1561.000**	ug/l	15,610.00	1.0	5000	45	P	
51	**V**	1	**138.600**	ug/l	1,386.00	0.6	5000	45	A	
52	**Cr**	1	**18.820**	ug/l	188.20	1.3	5000	45	P	
55	**Mn**	1	**3043.000**	ug/l	30,430.00	0.9	5000	45	A	
57	**Fe**	1	**92880.000**	ug/l	928,800.00	0.3	500000	74	A	
59	**Co**	1	**58.150**	ug/l	581.50	1.4	5000	45	P	
60	**Ni**	1	**11.190**	ug/l	111.90	1.6	5000	74	P	
63	**Cu**	1	**344.200**	ug/l	3,442.00	0.5	5000	74	A	
66	**Zn**	1	**246.300**	ug/l	2,463.00	1.1	5000	74	P	
75	**As**	1	**438.900**	ug/l	4,389.00	0.5	5000	74	P	
78	**Se**	1	**3.459**	ug/l	34.59	7.1	5000	74	P	
88	**Sr**	1	**15.640**	ug/l	156.40	0.8	5000	74	P	
95	**Mo**	1	**16.140**	ug/l	161.40	0.6	5000	103	P	
109	**Ag**	1	**1.344**	ug/l	13.44	1.3	200	103	P	
111	**Cd**	1	**0.994**	ug/l	9.94	3.9	5000	103	P	
118	**Sn**	1	**1.597**	ug/l	15.97	1.4	5000	103	P	
123	**Sb**	1	**11.030**	ug/l	110.30	0.6	5000	103	P	
135	**Ba**	1	**124.400**	ug/l	1,244.00	0.4	5000	103	P	
200	**Hg**	1	**0.226**	ug/l	2.26	7.9	50	209	P	
205	**Tl**	1	**0.453**	ug/l	4.53	2.9	5000	103	P	
208	**Pb**	1	**134.800**	ug/l	1,348.00	1.8	5000	209	A	
238	**U**	1	**5.825**	ug/l	58.25	1.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	126931	0.32	174500	**72.7**	30	-	125	
45	Sc	1	1875162	1.20	2091000	**89.7**	30	-	125	
74	Ge	1	4045821	0.45	4536000	**89.2**	30	-	125	
103	Rh	1	5340531	0.35	6076000	**87.9**	30	-	125	
165	Ho	1	2481279	1.85	2580000	**96.2**	30	-	125	
175	Lu	1	2087587	1.79	2136000	**97.7**	30	-	125	
209	Bi	1	2495665	0.71	2616000	**95.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\081SMPL.D\081SMPL.D#
Date Acquired: Sep 27 2011 01:49 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-32-B Vial Number: 3110
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.624**	ug/l	6.24	5.7	5000	6	P	
23	**Na**	1	**162.700**	ug/l	1,627.00	5.2	500000	45	P	
24	**Mg**	1	**10240.000**	ug/l	102,400.00	1.9	500000	45	A	
27	**Al**	1	**45640.000**	ug/l	456,400.00	1.5	500000	45	A	
31	**P**	1	**1003.000**	ug/l	10,030.00	2.8	500000	45	P	
39	**K**	1	**1247.000**	ug/l	12,470.00	2.6	500000	45	A	
44	**Ca**	1	**761.000**	ug/l	7,610.00	2.8	500000	45	P	
47	**Ti**	1	**1343.000**	ug/l	13,430.00	2.0	5000	45	P	
51	**V**	1	**118.000**	ug/l	1,180.00	2.0	5000	45	A	
52	**Cr**	1	**122.100**	ug/l	1,221.00	3.2	5000	45	A	
55	**Mn**	1	**2083.000**	ug/l	20,830.00	1.5	5000	45	A	
57	**Fe**	1	**55300.000**	ug/l	553,000.00	1.4	500000	74	A	
59	**Co**	1	**13.280**	ug/l	132.80	1.7	5000	45	P	
60	**Ni**	1	**83.850**	ug/l	838.50	1.6	5000	74	P	
63	**Cu**	1	**129.700**	ug/l	1,297.00	1.8	5000	74	A	
66	**Zn**	1	**308.700**	ug/l	3,087.00	1.1	5000	74	P	
75	**As**	1	**275.200**	ug/l	2,752.00	1.5	5000	74	P	
78	**Se**	1	**1.990**	ug/l	19.90	1.3	5000	74	P	
88	**Sr**	1	**6.933**	ug/l	69.33	1.7	5000	74	P	
95	**Mo**	1	**4.256**	ug/l	42.56	3.9	5000	103	P	
109	**Ag**	1	**0.683**	ug/l	6.83	3.1	200	103	P	
111	**Cd**	1	**0.473**	ug/l	4.73	6.0	5000	103	P	
118	**Sn**	1	**2.043**	ug/l	20.43	5.4	5000	103	P	
123	**Sb**	1	**4.992**	ug/l	49.92	4.0	5000	103	P	
135	**Ba**	1	**61.520**	ug/l	615.20	1.2	5000	103	P	
200	**Hg**	1	**0.385**	ug/l	3.85	5.4	50	209	P	
205	**Tl**	1	**0.535**	ug/l	5.35	3.0	5000	103	P	
208	**Pb**	1	**89.910**	ug/l	899.10	1.3	5000	209	A	
238	**U**	1	**1.357**	ug/l	13.57	3.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	122072	1.49	174500	**70.0**	30	-	125	
45	Sc	1	1846648	1.10	2091000	**88.3**	30	-	125	
74	Ge	1	4062129	0.76	4536000	**89.6**	30	-	125	
103	Rh	1	5381946	0.90	6076000	**88.6**	30	-	125	
165	Ho	1	2526567	0.34	2580000	**97.9**	30	-	125	
175	Lu	1	2108930	1.64	2136000	**98.7**	30	-	125	
209	Bi	1	2496924	0.84	2616000	**95.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\082SMPL.D\082SMPL.D#
Date Acquired: Sep 27 2011 01:53 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-33-B Vial Number: 3201
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.562**	ug/l	5.62	13.9	5000	6	P	
23	**Na**	1	**26.320**	ug/l	263.20	6.4	500000	45	P	
24	**Mg**	1	**1540.000**	ug/l	15,400.00	2.8	500000	45	A	
27	**Al**	1	**4399.000**	ug/l	43,990.00	0.9	500000	45	A	
31	**P**	1	**1050.000**	ug/l	10,500.00	1.0	500000	45	P	
39	**K**	1	**2132.000**	ug/l	21,320.00	3.2	500000	45	A	
44	**Ca**	1	**2456.000**	ug/l	24,560.00	2.4	500000	45	P	
47	**Ti**	1	**34.210**	ug/l	342.10	7.3	5000	45	P	
51	**V**	1	**26.530**	ug/l	265.30	2.2	5000	45	P	
52	**Cr**	1	**2.267**	ug/l	22.67	3.5	5000	45	P	
55	**Mn**	1	**11530.000**	ug/l	115,300.00	2.0	5000	45	A	Fail
57	**Fe**	1	**144900.000**	ug/l	1,449,000.00	1.8	500000	74	A	
59	**Co**	1	**31.410**	ug/l	314.10	2.1	5000	45	P	
60	**Ni**	1	**10.480**	ug/l	104.80	0.5	5000	74	P	
63	**Cu**	1	**314.600**	ug/l	3,146.00	0.4	5000	74	A	
66	**Zn**	1	**4019.000**	ug/l	40,190.00	2.1	5000	74	A	
75	**As**	1	**21700.000**	ug/l	217,000.00	1.6	5000	74	A	Fail
78	**Se**	1	**1.076**	ug/l	10.76	10.6	5000	74	P	
88	**Sr**	1	**256.700**	ug/l	2,567.00	7.8	5000	74	A	
95	**Mo**	1	**1.891**	ug/l	18.91	3.9	5000	103	P	
109	**Ag**	1	**15.330**	ug/l	153.30	0.7	200	103	P	
111	**Cd**	1	**29.990**	ug/l	299.90	1.4	5000	103	P	
118	**Sn**	1	**1.908**	ug/l	19.08	1.4	5000	103	P	
123	**Sb**	1	**294.400**	ug/l	2,944.00	0.7	5000	103	A	
135	**Ba**	1	**39.380**	ug/l	393.80	1.0	5000	103	P	
200	**Hg**	1	**1.700**	ug/l	17.00	3.0	50	209	P	
205	**Tl**	1	**1.048**	ug/l	10.48	5.1	5000	103	P	
208	**Pb**	1	**1548.000**	ug/l	15,480.00	0.9	5000	209	A	
238	**U**	1	**0.202**	ug/l	2.02	6.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	118606	1.51	174500	**68.0**	30 - 125	
45	Sc	1	1821626	1.89	2091000	**87.1**	30 - 125	
74	Ge	1	4029499	1.42	4536000	**88.8**	30 - 125	
103	Rh	1	5379901	0.17	6076000	**88.5**	30 - 125	
165	Ho	1	2507663	0.72	2580000	**97.2**	30 - 125	
175	Lu	1	2083954	0.41	2136000	**97.6**	30 - 125	
209	Bi	1	2831528	0.74	2616000	**108.2**	30 - 125	

Analytes: **Fail** **ISTD:** **Pass**

2 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\083SMPL.D\083SMPL.D#
Date Acquired: Sep 27 2011 01:57 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-34-B Vial Number: 3202
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.169**	ug/l	1.69	16.2	5000	6	P	
23	**Na**	1	**296.300**	ug/l	2,963.00	2.3	500000	45	M	
24	**Mg**	1	**4975.000**	ug/l	49,750.00	0.5	500000	45	A	
27	**Al**	1	**26520.000**	ug/l	265,200.00	1.7	500000	45	A	
31	**P**	1	**725.700**	ug/l	7,257.00	1.1	500000	45	P	
39	**K**	1	**842.400**	ug/l	8,424.00	4.3	500000	45	A	
44	**Ca**	1	**1327.000**	ug/l	13,270.00	0.4	500000	45	P	
47	**Ti**	1	**1742.000**	ug/l	17,420.00	1.4	5000	45	P	
51	**V**	1	**127.700**	ug/l	1,277.00	1.7	5000	45	A	
52	**Cr**	1	**14.910**	ug/l	149.10	1.7	5000	45	P	
55	**Mn**	1	**386.800**	ug/l	3,868.00	0.6	5000	45	A	
57	**Fe**	1	**45180.000**	ug/l	451,800.00	1.3	500000	74	A	
59	**Co**	1	**7.771**	ug/l	77.71	2.5	5000	45	P	
60	**Ni**	1	**6.549**	ug/l	65.49	2.2	5000	74	P	
63	**Cu**	1	**52.480**	ug/l	524.80	0.9	5000	74	P	
66	**Zn**	1	**110.100**	ug/l	1,101.00	1.1	5000	74	P	
75	**As**	1	**300.100**	ug/l	3,001.00	1.0	5000	74	P	
78	**Se**	1	**0.688**	ug/l	6.88	23.5	5000	74	P	
88	**Sr**	1	**9.238**	ug/l	92.38	1.7	5000	74	P	
95	**Mo**	1	**1.855**	ug/l	18.55	3.2	5000	103	P	
109	**Ag**	1	**0.655**	ug/l	6.55	1.9	200	103	P	
111	**Cd**	1	**0.394**	ug/l	3.94	11.8	5000	103	P	
118	**Sn**	1	**2.333**	ug/l	23.33	2.8	5000	103	P	
123	**Sb**	1	**5.891**	ug/l	58.91	1.2	5000	103	P	
135	**Ba**	1	**38.800**	ug/l	388.00	2.2	5000	103	P	
200	**Hg**	1	**0.146**	ug/l	1.46	3.0	50	209	P	
205	**Tl**	1	**0.225**	ug/l	2.25	4.8	5000	103	P	
208	**Pb**	1	**40.900**	ug/l	409.00	1.5	5000	209	P	
238	**U**	1	**0.691**	ug/l	6.91	1.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	123678	0.31	174500	**70.9**	30	-	125	
45	Sc	1	1831857	0.78	2091000	**87.6**	30	-	125	
74	Ge	1	4056692	0.92	4536000	**89.4**	30	-	125	
103	Rh	1	5429778	0.91	6076000	**89.4**	30	-	125	
165	Ho	1	2518951	0.99	2580000	**97.6**	30	-	125	
175	Lu	1	2134593	2.13	2136000	**99.9**	30	-	125	
209	Bi	1	2545155	0.04	2616000	**97.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\084SMPL.D\084SMPL.D#
Date Acquired: Sep 27 2011 02:02 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28720-A-33-B Vial Number: 3203
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1000.00** Final Dil Factor: **1000.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	4.64	70.4	5000	6	P	
23	**Na**	1	**-5.853**	ug/l	-5,853.00	20.6	500000	45	P	
24	**Mg**	1	**13.790**	ug/l	13,790.00	3.8	500000	45	P	
27	**Al**	1	**37.690**	ug/l	37,690.00	3.1	500000	45	P	
31	**P**	1	**2.980**	ug/l	2,980.00	48.2	500000	45	P	
39	**K**	1	**12.640**	ug/l	12,640.00	28.8	500000	45	P	
44	**Ca**	1	**19.780**	ug/l	19,780.00	5.5	500000	45	P	
47	**Ti**	1	**0.698**	ug/l	698.10	25.2	5000	45	P	
51	**V**	1	**0.185**	ug/l	185.10	8.2	5000	45	P	
52	**Cr**	1	**0.012**	ug/l	11.97	99.4	5000	45	P	
55	**Mn**	1	**104.900**	ug/l	104,900.00	2.4	5000	45	P	
57	**Fe**	1	**1254.000**	ug/l	1,254,000.00	1.3	500000	74	P	
59	**Co**	1	**0.273**	ug/l	272.80	2.7	5000	45	P	
60	**Ni**	1	**0.065**	ug/l	64.87	10.9	5000	74	P	
63	**Cu**	1	**2.657**	ug/l	2,657.00	1.2	5000	74	P	
66	**Zn**	1	**34.810**	ug/l	34,810.00	1.1	5000	74	P	
75	**As**	1	**186.100**	ug/l	186,100.00	0.6	5000	74	P	
78	**Se**	1	**-0.002**	ug/l	-1.56	1097.9	5000	74	P	
88	**Sr**	1	**2.015**	ug/l	2,015.00	2.0	5000	74	P	
95	**Mo**	1	**0.019**	ug/l	19.03	58.0	5000	103	P	
109	**Ag**	1	**0.132**	ug/l	131.70	5.7	200	103	P	
111	**Cd**	1	**0.271**	ug/l	270.70	9.3	5000	103	P	
118	**Sn**	1	**0.024**	ug/l	23.61	32.7	5000	103	P	
123	**Sb**	1	**2.379**	ug/l	2,379.00	3.1	5000	103	P	
135	**Ba**	1	**0.278**	ug/l	277.50	17.3	5000	103	P	
200	**Hg**	1	**0.027**	ug/l	26.71	14.0	50	209	P	
205	**Tl**	1	**0.034**	ug/l	34.49	26.3	5000	103	P	
208	**Pb**	1	**15.190**	ug/l	15,190.00	1.6	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.19	167.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	121936	1.38	174500	**69.9**	30	-	125	
45	Sc	1	1826340	2.20	2091000	**87.3**	30	-	125	
74	Ge	1	4155624	0.48	4536000	**91.6**	30	-	125	
103	Rh	1	5726988	0.73	6076000	**94.3**	30	-	125	
165	Ho	1	2568346	0.62	2580000	**99.5**	30	-	125	
175	Lu	1	2146176	1.49	2136000	**100.5**	30	-	125	
209	Bi	1	2654752	1.08	2616000	**101.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\086SMPL.D\086SMPL.D#
Date Acquired: Sep 27 2011 02:11 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.380**	ug/l	51.38	1.8	5000	6	P	
23	**Na**	1	**4609.000**	ug/l	4,609.00	1.9	500000	45	A	
24	**Mg**	1	**4658.000**	ug/l	4,658.00	1.6	500000	45	A	
27	**Al**	1	**455.500**	ug/l	455.50	2.2	500000	45	P	
31	**P**	1	**4563.000**	ug/l	4,563.00	1.4	500000	45	P	
39	**K**	1	**4878.000**	ug/l	4,878.00	1.1	500000	45	A	
44	**Ca**	1	**4920.000**	ug/l	4,920.00	1.5	500000	45	P	
47	**Ti**	1	**49.230**	ug/l	49.23	2.0	5000	45	P	
51	**V**	1	**48.210**	ug/l	48.21	1.5	5000	45	P	
52	**Cr**	1	**48.300**	ug/l	48.30	2.2	5000	45	P	
55	**Mn**	1	**50.470**	ug/l	50.47	2.3	5000	45	P	
57	**Fe**	1	**4873.000**	ug/l	4,873.00	1.0	500000	74	A	
59	**Co**	1	**49.060**	ug/l	49.06	2.1	5000	45	P	
60	**Ni**	1	**48.460**	ug/l	48.46	0.9	5000	74	P	
63	**Cu**	1	**48.950**	ug/l	48.95	1.5	5000	74	P	
66	**Zn**	1	**49.620**	ug/l	49.62	1.1	5000	74	P	
75	**As**	1	**48.800**	ug/l	48.80	0.9	5000	74	P	
78	**Se**	1	**48.230**	ug/l	48.23	0.7	5000	74	P	
88	**Sr**	1	**50.190**	ug/l	50.19	1.0	5000	74	P	
95	**Mo**	1	**48.900**	ug/l	48.90	0.4	5000	103	P	
109	**Ag**	1	**48.700**	ug/l	48.70	1.0	200	103	P	
111	**Cd**	1	**50.530**	ug/l	50.53	1.8	5000	103	P	
118	**Sn**	1	**50.700**	ug/l	50.70	1.6	5000	103	P	
123	**Sb**	1	**50.690**	ug/l	50.69	0.4	5000	103	P	
135	**Ba**	1	**51.900**	ug/l	51.90	0.9	5000	103	P	
200	**Hg**	1	**2.379**	ug/l	2.38	1.9	50	209	P	
205	**Tl**	1	**49.230**	ug/l	49.23	2.4	5000	103	M	
208	**Pb**	1	**48.390**	ug/l	48.39	0.6	5000	209	P	
238	**U**	1	**48.960**	ug/l	48.96	0.6	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	125709	1.21	174500	**72.0**	30	-	125	
45	Sc	1	1870390	1.98	2091000	**89.4**	30	-	125	
74	Ge	1	4192163	0.58	4536000	**92.4**	30	-	125	
103	Rh	1	5533788	0.27	6076000	**91.1**	30	-	125	
165	Ho	1	2533999	1.07	2580000	**98.2**	30	-	125	
175	Lu	1	2139467	1.18	2136000	**100.2**	30	-	125	
209	Bi	1	2567148	0.66	2616000	**98.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\087SMPL.D\087SMPL.D#
Date Acquired: Sep 27 2011 02:15 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.003**	ug/l	0.00	207.7	5000	6	P	
23	**Na**	1	**-6.239**	ug/l	-6.24	4.0	500000	45	P	
24	**Mg**	1	**0.630**	ug/l	0.63	141.0	500000	45	P	
27	**Al**	1	**-0.095**	ug/l	-0.10	186.2	500000	45	P	
31	**P**	1	**-6.647**	ug/l	-6.65	20.2	500000	45	P	
39	**K**	1	**-2.656**	ug/l	-2.66	66.7	500000	45	P	
44	**Ca**	1	**-2.085**	ug/l	-2.09	24.4	500000	45	P	
47	**Ti**	1	**0.108**	ug/l	0.11	8.0	5000	45	P	
51	**V**	1	**-0.028**	ug/l	-0.03	48.5	5000	45	P	
52	**Cr**	1	**0.187**	ug/l	0.19	5.4	5000	45	P	
55	**Mn**	1	**0.270**	ug/l	0.27	6.6	5000	45	P	
57	**Fe**	1	**3.284**	ug/l	3.28	24.2	500000	74	P	
59	**Co**	1	**-0.001**	ug/l	0.00	89.0	5000	45	P	
60	**Ni**	1	**0.020**	ug/l	0.02	85.3	5000	74	P	
63	**Cu**	1	**-0.030**	ug/l	-0.03	21.5	5000	74	P	
66	**Zn**	1	**-0.007**	ug/l	-0.01	699.2	5000	74	P	
75	**As**	1	**0.061**	ug/l	0.06	20.6	5000	74	P	
78	**Se**	1	**0.113**	ug/l	0.11	58.9	5000	74	P	
88	**Sr**	1	**-0.009**	ug/l	-0.01	61.8	5000	74	P	
95	**Mo**	1	**0.065**	ug/l	0.07	9.2	5000	103	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	272.7	200	103	P	
111	**Cd**	1	**-0.012**	ug/l	-0.01	53.4	5000	103	P	
118	**Sn**	1	**0.140**	ug/l	0.14	12.4	5000	103	P	
123	**Sb**	1	**0.038**	ug/l	0.04	38.7	5000	103	P	
135	**Ba**	1	**0.002**	ug/l	0.00	1018.3	5000	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	12.3	50	209	P	
205	**Tl**	1	**0.262**	ug/l	0.26	4.2	5000	103	P	
208	**Pb**	1	**0.000**	ug/l	0.00	4027.2	5000	209	P	
238	**U**	1	**0.010**	ug/l	0.01	13.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	126717	2.41	174500	**72.6**	30	-	125	
45	Sc	1	1866488	0.73	2091000	**89.3**	30	-	125	
74	Ge	1	4211909	0.63	4536000	**92.9**	30	-	125	
103	Rh	1	5727604	1.31	6076000	**94.3**	30	-	125	
165	Ho	1	2534616	1.17	2580000	**98.2**	30	-	125	
175	Lu	1	2137418	1.46	2136000	**100.1**	30	-	125	
209	Bi	1	2636237	1.80	2616000	**100.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\089SMPL.D\089SMPL.D#
Date Acquired: Sep 27 2011 02:24 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28723-C-1-A SD Vial Number: 3302
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **25.00** Final Dil Factor: **25.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.008**	ug/l	0.20	45.2	5000	6	P	
23	**Na**	1	**215300.000**	ug/l	5,382,500.00	0.9	500000	45	A	
24	**Mg**	1	**24120.000**	ug/l	603,000.00	0.7	500000	45	A	
27	**Al**	1	**11.610**	ug/l	290.25	4.2	500000	45	P	
31	**P**	1	**1.174**	ug/l	29.35	45.1	500000	45	P	
39	**K**	1	**7784.000**	ug/l	194,600.00	0.6	500000	45	A	
44	**Ca**	1	**9390.000**	ug/l	234,750.00	1.4	500000	45	P	
47	**Ti**	1	**0.254**	ug/l	6.34	11.9	5000	45	P	
51	**V**	1	**0.233**	ug/l	5.83	3.5	5000	45	P	
52	**Cr**	1	**0.010**	ug/l	0.24	98.4	5000	45	P	
55	**Mn**	1	**12.780**	ug/l	319.50	1.4	5000	45	P	
57	**Fe**	1	**81.100**	ug/l	2,027.50	0.6	500000	74	P	
59	**Co**	1	**0.056**	ug/l	1.40	8.1	5000	45	P	
60	**Ni**	1	**0.065**	ug/l	1.64	7.3	5000	74	P	
63	**Cu**	1	**0.075**	ug/l	1.86	2.0	5000	74	P	
66	**Zn**	1	**0.032**	ug/l	0.80	27.0	5000	74	P	
75	**As**	1	**0.249**	ug/l	6.22	5.4	5000	74	P	
78	**Se**	1	**0.157**	ug/l	3.93	31.2	5000	74	P	
88	**Sr**	1	**161.600**	ug/l	4,040.00	1.7	5000	74	A	
95	**Mo**	1	**0.077**	ug/l	1.93	11.2	5000	103	P	
109	**Ag**	1	**0.002**	ug/l	0.05	103.6	200	103	P	
111	**Cd**	1	**-0.005**	ug/l	-0.14	120.7	5000	103	P	
118	**Sn**	1	**0.036**	ug/l	0.89	4.4	5000	103	P	
123	**Sb**	1	**0.033**	ug/l	0.84	29.1	5000	103	P	
135	**Ba**	1	**5.756**	ug/l	143.90	2.3	5000	103	P	
200	**Hg**	1	**0.008**	ug/l	0.19	31.0	50	209	P	
205	**Tl**	1	**0.043**	ug/l	1.08	16.2	5000	103	P	
208	**Pb**	1	**-0.017**	ug/l	-0.42	54.1	5000	209	P	
238	**U**	1	**0.030**	ug/l	0.75	6.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129705	1.38	174500	**74.3**	30	-	125	
45	Sc	1	1834867	0.97	2091000	**87.8**	30	-	125	
74	Ge	1	3990064	0.32	4536000	**88.0**	30	-	125	
103	Rh	1	4978506	0.81	6076000	**81.9**	30	-	125	
165	Ho	1	2345401	0.98	2580000	**90.9**	30	-	125	
175	Lu	1	1963382	0.37	2136000	**91.9**	30	-	125	
209	Bi	1	2211111	1.19	2616000	**84.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\090SMPL.D\090SMPL.D#
Date Acquired: Sep 27 2011 02:28 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28723-C-1-A Vial Number: 3303
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.036**	ug/l	0.18	43.2	5000	6	P	
23	**Na**	1	**1100000.000**	ug/l	5,500,000.00	0.2	500000	45	A	Fail
24	**Mg**	1	**124900.000**	ug/l	624,500.00	0.4	500000	45	A	
27	**Al**	1	**13.440**	ug/l	67.20	1.0	500000	45	P	
31	**P**	1	**30.030**	ug/l	150.15	2.2	500000	45	P	
39	**K**	1	**38790.000**	ug/l	193,950.00	0.5	500000	45	A	
44	**Ca**	1	**46910.000**	ug/l	234,550.00	0.2	500000	45	A	
47	**Ti**	1	**0.766**	ug/l	3.83	6.7	5000	45	P	
51	**V**	1	**1.392**	ug/l	6.96	3.0	5000	45	P	
52	**Cr**	1	**0.166**	ug/l	0.83	12.1	5000	45	P	
55	**Mn**	1	**62.880**	ug/l	314.40	0.2	5000	45	P	
57	**Fe**	1	**421.200**	ug/l	2,106.00	1.0	500000	74	P	
59	**Co**	1	**0.260**	ug/l	1.30	2.5	5000	45	P	
60	**Ni**	1	**0.524**	ug/l	2.62	6.1	5000	74	P	
63	**Cu**	1	**0.138**	ug/l	0.69	17.6	5000	74	P	
66	**Zn**	1	**0.665**	ug/l	3.32	2.8	5000	74	P	
75	**As**	1	**1.124**	ug/l	5.62	5.1	5000	74	P	
78	**Se**	1	**0.326**	ug/l	1.63	8.8	5000	74	P	
88	**Sr**	1	**777.000**	ug/l	3,885.00	1.0	5000	74	A	
95	**Mo**	1	**0.344**	ug/l	1.72	2.5	5000	103	P	
109	**Ag**	1	**0.006**	ug/l	0.03	112.1	200	103	P	
111	**Cd**	1	**0.024**	ug/l	0.12	45.1	5000	103	P	
118	**Sn**	1	**0.085**	ug/l	0.43	19.5	5000	103	P	
123	**Sb**	1	**0.094**	ug/l	0.47	7.8	5000	103	P	
135	**Ba**	1	**28.410**	ug/l	142.05	1.8	5000	103	P	
200	**Hg**	1	**0.011**	ug/l	0.05	64.7	50	209	P	
205	**Tl**	1	**0.034**	ug/l	0.17	11.4	5000	103	P	
208	**Pb**	1	**0.024**	ug/l	0.12	11.1	5000	209	P	
238	**U**	1	**0.173**	ug/l	0.86	7.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	121462	0.88	174500	**69.6**	30	-	125	
45	Sc	1	1617303	0.75	2091000	**77.3**	30	-	125	
74	Ge	1	3404923	0.90	4536000	**75.1**	30	-	125	
103	Rh	1	4256169	0.78	6076000	**70.0**	30	-	125	
165	Ho	1	1996371	0.48	2580000	**77.4**	30	-	125	
175	Lu	1	1671142	1.28	2136000	**78.2**	30	-	125	
209	Bi	1	1810501	1.21	2616000	**69.2**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\091SMPL.D\091SMPL.D#
Date Acquired: Sep 27 2011 02:32 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28723-C-1-B DU Vial Number: 3304
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.033**	ug/l	0.16	42.7	5000	6	P	
23	Na	1	**1134000.000**	ug/l	5,670,000.00	0.4	500000	45	A	Fail
24	Mg	1	**126600.000**	ug/l	633,000.00	0.2	500000	45	A	
27	Al	1	**22.740**	ug/l	113.70	9.0	500000	45	P	
31	P	1	**31.820**	ug/l	159.10	8.5	500000	45	P	
39	K	1	**39200.000**	ug/l	196,000.00	0.5	500000	45	A	
44	Ca	1	**47400.000**	ug/l	237,000.00	1.0	500000	45	A	
47	Ti	1	**0.747**	ug/l	3.74	3.8	5000	45	P	
51	V	1	**1.429**	ug/l	7.15	2.4	5000	45	P	
52	Cr	1	**0.159**	ug/l	0.80	3.7	5000	45	P	
55	Mn	1	**62.910**	ug/l	314.55	1.7	5000	45	P	
57	Fe	1	**425.100**	ug/l	2,125.50	1.4	500000	74	P	
59	Co	1	**0.265**	ug/l	1.33	7.1	5000	45	P	
60	Ni	1	**0.514**	ug/l	2.57	2.7	5000	74	P	
63	Cu	1	**0.188**	ug/l	0.94	2.8	5000	74	P	
66	Zn	1	**0.585**	ug/l	2.93	6.4	5000	74	P	
75	As	1	**1.088**	ug/l	5.44	2.5	5000	74	P	
78	Se	1	**0.250**	ug/l	1.25	13.3	5000	74	P	
88	Sr	1	**787.500**	ug/l	3,937.50	1.3	5000	74	A	
95	Mo	1	**0.347**	ug/l	1.74	8.3	5000	103	P	
109	Ag	1	**0.005**	ug/l	0.02	77.7	200	103	P	
111	Cd	1	**0.009**	ug/l	0.04	35.0	5000	103	P	
118	Sn	1	**0.052**	ug/l	0.26	17.8	5000	103	P	
123	Sb	1	**0.083**	ug/l	0.41	7.2	5000	103	P	
135	Ba	1	**29.260**	ug/l	146.30	0.8	5000	103	P	
200	Hg	1	**0.012**	ug/l	0.06	27.6	50	209	P	
205	Tl	1	**0.021**	ug/l	0.11	24.9	5000	103	P	
208	Pb	1	**0.010**	ug/l	0.05	88.5	5000	209	P	
238	U	1	**0.175**	ug/l	0.88	5.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	132243	3.53	174500	**75.8**	30	-	125	
45	Sc	1	1661659	2.50	2091000	**79.5**	30	-	125	
74	Ge	1	3452692	1.13	4536000	**76.1**	30	-	125	
103	Rh	1	4292758	0.41	6076000	**70.7**	30	-	125	
165	Ho	1	2036985	0.75	2580000	**79.0**	30	-	125	
175	Lu	1	1712051	0.75	2136000	**80.2**	30	-	125	
209	Bi	1	1849489	1.33	2616000	**70.7**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\092SMPL.D\092SMPL.D#
Date Acquired: Sep 27 2011 02:37 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28723-C-1-C MS Vial Number: 3305
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**21.110**	ug/l	105.55	2.5	5000	6	P	
23	**Na**	1	**1137000.000**	ug/l	5,685,000.00	2.4	500000	45	A	Fail
24	**Mg**	1	**129400.000**	ug/l	647,000.00	1.9	500000	45	A	
27	**Al**	1	**219.500**	ug/l	1,097.50	2.0	500000	45	P	
31	**P**	1	**2169.000**	ug/l	10,845.00	0.6	500000	45	P	
39	**K**	1	**40910.000**	ug/l	204,550.00	1.0	500000	45	A	
44	**Ca**	1	**49240.000**	ug/l	246,200.00	1.2	500000	45	A	
47	**Ti**	1	**21.440**	ug/l	107.20	1.7	5000	45	P	
51	**V**	1	**21.860**	ug/l	109.30	2.6	5000	45	P	
52	**Cr**	1	**19.720**	ug/l	98.60	1.5	5000	45	P	
55	**Mn**	1	**81.710**	ug/l	408.55	2.2	5000	45	P	
57	**Fe**	1	**2401.000**	ug/l	12,005.00	0.5	500000	74	P	
59	**Co**	1	**19.580**	ug/l	97.90	2.5	5000	45	P	
60	**Ni**	1	**20.570**	ug/l	102.85	1.0	5000	74	P	
63	**Cu**	1	**20.590**	ug/l	102.95	1.3	5000	74	P	
66	**Zn**	1	**20.710**	ug/l	103.55	0.8	5000	74	P	
75	**As**	1	**22.740**	ug/l	113.70	1.6	5000	74	P	
78	**Se**	1	**13.490**	ug/l	67.45	1.7	5000	74	P	
88	**Sr**	1	**804.600**	ug/l	4,023.00	0.6	5000	74	A	
95	**Mo**	1	**23.320**	ug/l	116.60	1.0	5000	103	P	
109	**Ag**	1	**20.210**	ug/l	101.05	0.9	200	103	P	
111	**Cd**	1	**21.380**	ug/l	106.90	3.6	5000	103	P	
118	**Sn**	1	**21.930**	ug/l	109.65	1.3	5000	103	P	
123	**Sb**	1	**22.420**	ug/l	112.10	1.6	5000	103	P	
135	**Ba**	1	**50.560**	ug/l	252.80	0.8	5000	103	P	
200	**Hg**	1	**0.005**	ug/l	0.03	82.5	50	209	P	
205	**Tl**	1	**18.360**	ug/l	91.80	5.8	5000	103	P	
208	**Pb**	1	**21.800**	ug/l	109.00	1.2	5000	209	P	
238	**U**	1	**22.440**	ug/l	112.20	1.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130965	2.20	174500	**75.1**	30	-	125	
45	Sc	1	1653041	1.70	2091000	**79.1**	30	-	125	
74	Ge	1	3448795	0.05	4536000	**76.0**	30	-	125	
103	Rh	1	4259743	1.08	6076000	**70.1**	30	-	125	
165	Ho	1	2041525	0.15	2580000	**79.1**	30	-	125	
175	Lu	1	1701920	0.45	2136000	**79.7**	30	-	125	
209	Bi	1	1825230	0.53	2616000	**69.8**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\093SMPL.D\093SMPL.D#
Date Acquired: Sep 27 2011 02:41 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28723-C-1-D MSD Vial Number: 3306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**21.300**	ug/l	106.50	1.7	5000	6	P	
23	**Na**	1	**1168000.000**	ug/l	5,840,000.00	1.2	500000	45	A	Fail
24	**Mg**	1	**131700.000**	ug/l	658,500.00	2.0	500000	45	A	
27	**Al**	1	**223.600**	ug/l	1,118.00	1.2	500000	45	P	
31	**P**	1	**2229.000**	ug/l	11,145.00	2.6	500000	45	P	
39	**K**	1	**41910.000**	ug/l	209,550.00	1.7	500000	45	A	
44	**Ca**	1	**50230.000**	ug/l	251,150.00	2.3	500000	45	A	
47	**Ti**	1	**21.920**	ug/l	109.60	3.1	5000	45	P	
51	**V**	1	**22.210**	ug/l	111.05	1.6	5000	45	P	
52	**Cr**	1	**20.110**	ug/l	100.55	1.9	5000	45	P	
55	**Mn**	1	**83.540**	ug/l	417.70	2.0	5000	45	P	
57	**Fe**	1	**2442.000**	ug/l	12,210.00	1.6	500000	74	P	
59	**Co**	1	**19.910**	ug/l	99.55	1.9	5000	45	P	
60	**Ni**	1	**20.920**	ug/l	104.60	2.3	5000	74	P	
63	**Cu**	1	**20.610**	ug/l	103.05	2.1	5000	74	P	
66	**Zn**	1	**21.110**	ug/l	105.55	1.7	5000	74	P	
75	**As**	1	**23.280**	ug/l	116.40	2.1	5000	74	P	
78	**Se**	1	**13.200**	ug/l	66.00	1.8	5000	74	P	
88	**Sr**	1	**813.700**	ug/l	4,068.50	0.9	5000	74	A	
95	**Mo**	1	**22.930**	ug/l	114.65	2.1	5000	103	P	
109	**Ag**	1	**20.120**	ug/l	100.60	0.9	200	103	P	
111	**Cd**	1	**21.580**	ug/l	107.90	2.0	5000	103	P	
118	**Sn**	1	**22.040**	ug/l	110.20	1.4	5000	103	P	
123	**Sb**	1	**22.630**	ug/l	113.15	1.5	5000	103	P	
135	**Ba**	1	**50.260**	ug/l	251.30	0.9	5000	103	P	
200	**Hg**	1	**0.008**	ug/l	0.04	22.7	50	209	P	
205	**Tl**	1	**18.620**	ug/l	93.10	6.1	5000	103	P	
208	**Pb**	1	**21.920**	ug/l	109.60	2.0	5000	209	P	
238	**U**	1	**22.560**	ug/l	112.80	2.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	136055	1.24	174500	**78.0**	30	-	125	
45	Sc	1	1676230	1.80	2091000	**80.2**	30	-	125	
74	Ge	1	3510781	1.74	4536000	**77.4**	30	-	125	
103	Rh	1	4392345	1.09	6076000	**72.3**	30	-	125	
165	Ho	1	2069533	0.94	2580000	**80.2**	30	-	125	
175	Lu	1	1740542	2.65	2136000	**81.5**	30	-	125	
209	Bi	1	1854672	0.66	2616000	**70.9**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\094SMPL.D\094SMPL.D#
Date Acquired: Sep 27 2011 02:46 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28723-C-1-A PDS Vial Number: 3307
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**21.360**	ug/l	106.80	0.9	5000	6	P	
23	Na	1	**1177000.000**	ug/l	5,885,000.00	2.5	500000	45	A	Fail
24	Mg	1	**132900.000**	ug/l	664,500.00	2.7	500000	45	A	
27	Al	1	**224.200**	ug/l	1,121.00	3.3	500000	45	P	
31	P	1	**2223.000**	ug/l	11,115.00	2.8	500000	45	P	
39	K	1	**42340.000**	ug/l	211,700.00	1.6	500000	45	A	
44	Ca	1	**50080.000**	ug/l	250,400.00	1.6	500000	45	A	
47	Ti	1	**22.060**	ug/l	110.30	3.0	5000	45	P	
51	V	1	**22.220**	ug/l	111.10	3.3	5000	45	P	
52	Cr	1	**20.000**	ug/l	100.00	3.2	5000	45	P	
55	Mn	1	**83.040**	ug/l	415.20	2.5	5000	45	P	
57	Fe	1	**2470.000**	ug/l	12,350.00	0.8	500000	74	P	
59	Co	1	**20.070**	ug/l	100.35	3.6	5000	45	P	
60	Ni	1	**21.450**	ug/l	107.25	0.7	5000	74	P	
63	Cu	1	**20.830**	ug/l	104.15	1.1	5000	74	P	
66	Zn	1	**21.350**	ug/l	106.75	1.1	5000	74	P	
75	As	1	**23.400**	ug/l	117.00	1.1	5000	74	P	
78	Se	1	**13.740**	ug/l	68.70	1.5	5000	74	P	
88	Sr	1	**824.800**	ug/l	4,124.00	0.8	5000	74	A	
95	Mo	1	**23.550**	ug/l	117.75	2.2	5000	103	P	
109	Ag	1	**20.530**	ug/l	102.65	1.8	200	103	P	
111	Cd	1	**21.630**	ug/l	108.15	2.3	5000	103	P	
118	Sn	1	**22.270**	ug/l	111.35	1.9	5000	103	P	
123	Sb	1	**22.700**	ug/l	113.50	1.7	5000	103	P	
135	Ba	1	**51.380**	ug/l	256.90	1.0	5000	103	P	
200	Hg	1	**0.005**	ug/l	0.03	74.3	50	209	P	
205	Tl	1	**18.720**	ug/l	93.60	3.8	5000	103	P	
208	Pb	1	**21.960**	ug/l	109.80	1.0	5000	209	P	
238	U	1	**22.700**	ug/l	113.50	1.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	137739	2.09	174500	**78.9**	30	-	125	
45	Sc	1	1704707	3.84	2091000	**81.5**	30	-	125	
74	Ge	1	3509809	1.02	4536000	**77.4**	30	-	125	
103	Rh	1	4395120	1.97	6076000	**72.3**	30	-	125	
165	Ho	1	2091480	2.01	2580000	**81.1**	30	-	125	
175	Lu	1	1748852	2.23	2136000	**81.9**	30	-	125	
209	Bi	1	1877317	1.04	2616000	**71.8**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\095SMPL.D\095SMPL.D#
Date Acquired: Sep 27 2011 02:50 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-96124/11-A Vial Number: 3308
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**101.900**	ug/l	101.90	0.3	5000	6	P	
23	**Na**	1	**9937.000**	ug/l	9,937.00	2.4	500000	45	A	
24	**Mg**	1	**9848.000**	ug/l	9,848.00	1.6	500000	45	A	
27	**Al**	1	**978.500**	ug/l	978.50	2.2	500000	45	P	
31	**P**	1	**9894.000**	ug/l	9,894.00	2.0	500000	45	P	
39	**K**	1	**9863.000**	ug/l	9,863.00	2.3	500000	45	A	
44	**Ca**	1	**9926.000**	ug/l	9,926.00	2.3	500000	45	P	
47	**Ti**	1	**99.410**	ug/l	99.41	2.4	5000	45	P	
51	**V**	1	**98.980**	ug/l	98.98	0.8	5000	45	A	
52	**Cr**	1	**99.540**	ug/l	99.54	2.4	5000	45	A	
55	**Mn**	1	**98.990**	ug/l	98.99	2.2	5000	45	P	
57	**Fe**	1	**10070.000**	ug/l	10,070.00	1.2	500000	74	A	
59	**Co**	1	**99.960**	ug/l	99.96	1.3	5000	45	A	
60	**Ni**	1	**99.630**	ug/l	99.63	0.6	5000	74	P	
63	**Cu**	1	**100.300**	ug/l	100.30	0.7	5000	74	P	
66	**Zn**	1	**102.800**	ug/l	102.80	1.6	5000	74	P	
75	**As**	1	**102.800**	ug/l	102.80	1.0	5000	74	P	
78	**Se**	1	**101.200**	ug/l	101.20	0.7	5000	74	P	
88	**Sr**	1	**101.500**	ug/l	101.50	0.6	5000	74	P	
95	**Mo**	1	**100.600**	ug/l	100.60	1.1	5000	103	P	
109	**Ag**	1	**101.300**	ug/l	101.30	1.3	200	103	A	
111	**Cd**	1	**102.900**	ug/l	102.90	1.5	5000	103	P	
118	**Sn**	1	**100.500**	ug/l	100.50	1.2	5000	103	P	
123	**Sb**	1	**103.900**	ug/l	103.90	1.6	5000	103	P	
135	**Ba**	1	**105.300**	ug/l	105.30	2.0	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.01	28.9	50	209	P	
205	**Tl**	1	**103.600**	ug/l	103.60	1.6	5000	103	A	
208	**Pb**	1	**101.700**	ug/l	101.70	2.6	5000	209	A	
238	**U**	1	**100.300**	ug/l	100.30	1.9	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	146088	0.90	174500	**83.7**	30	-	125	
45	Sc	1	1921008	2.30	2091000	**91.9**	30	-	125	
74	Ge	1	4144684	0.89	4536000	**91.4**	30	-	125	
103	Rh	1	5419844	1.16	6076000	**89.2**	30	-	125	
165	Ho	1	2467178	0.95	2580000	**95.6**	30	-	125	
175	Lu	1	2079341	1.55	2136000	**97.3**	30	-	125	
209	Bi	1	2427329	1.96	2616000	**92.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\096SMPL.D\096SMPL.D#
Date Acquired: Sep 27 2011 02:54 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-96124/12-A Vial Number: 3309
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**103.200**	ug/l	103.20	1.2	5000	6	P	
23	**Na**	1	**9998.000**	ug/l	9,998.00	0.8	500000	45	A	
24	**Mg**	1	**10060.000**	ug/l	10,060.00	0.9	500000	45	A	
27	**Al**	1	**995.400**	ug/l	995.40	1.3	500000	45	P	
31	**P**	1	**10060.000**	ug/l	10,060.00	1.3	500000	45	P	
39	**K**	1	**10160.000**	ug/l	10,160.00	0.9	500000	45	A	
44	**Ca**	1	**10150.000**	ug/l	10,150.00	0.7	500000	45	P	
47	**Ti**	1	**102.300**	ug/l	102.30	0.6	5000	45	P	
51	**V**	1	**100.700**	ug/l	100.70	1.2	5000	45	M	
52	**Cr**	1	**101.600**	ug/l	101.60	1.3	5000	45	A	
55	**Mn**	1	**102.100**	ug/l	102.10	0.7	5000	45	P	
57	**Fe**	1	**9922.000**	ug/l	9,922.00	0.3	500000	74	A	
59	**Co**	1	**102.600**	ug/l	102.60	1.6	5000	45	A	
60	**Ni**	1	**98.340**	ug/l	98.34	1.6	5000	74	P	
63	**Cu**	1	**99.520**	ug/l	99.52	1.4	5000	74	P	
66	**Zn**	1	**100.300**	ug/l	100.30	2.0	5000	74	P	
75	**As**	1	**102.200**	ug/l	102.20	1.2	5000	74	P	
78	**Se**	1	**101.400**	ug/l	101.40	1.0	5000	74	P	
88	**Sr**	1	**100.800**	ug/l	100.80	0.4	5000	74	P	
95	**Mo**	1	**100.000**	ug/l	100.00	0.6	5000	103	P	
109	**Ag**	1	**101.300**	ug/l	101.30	0.2	200	103	A	
111	**Cd**	1	**102.600**	ug/l	102.60	0.6	5000	103	P	
118	**Sn**	1	**101.500**	ug/l	101.50	0.5	5000	103	P	
123	**Sb**	1	**104.000**	ug/l	104.00	0.8	5000	103	P	
135	**Ba**	1	**105.100**	ug/l	105.10	0.9	5000	103	P	
200	**Hg**	1	**0.004**	ug/l	0.00	67.8	50	209	P	
205	**Tl**	1	**103.200**	ug/l	103.20	0.8	5000	103	A	
208	**Pb**	1	**102.300**	ug/l	102.30	0.6	5000	209	A	
238	**U**	1	**101.400**	ug/l	101.40	0.3	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	144390	0.75	174500	**82.7**	30	-	125	
45	Sc	1	1890169	1.48	2091000	**90.4**	30	-	125	
74	Ge	1	4174269	1.03	4536000	**92.0**	30	-	125	
103	Rh	1	5466277	0.75	6076000	**90.0**	30	-	125	
165	Ho	1	2477990	1.46	2580000	**96.0**	30	-	125	
175	Lu	1	2103605	2.07	2136000	**98.5**	30	-	125	
209	Bi	1	2424921	0.83	2616000	**92.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\097SMPL.D\097SMPL.D#
Date Acquired: Sep 27 2011 02:59 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.890**	ug/l	48.89	1.1	5000	6	P	
23	**Na**	1	**4878.000**	ug/l	4,878.00	0.9	500000	45	A	
24	**Mg**	1	**4837.000**	ug/l	4,837.00	1.0	500000	45	A	
27	**Al**	1	**475.900**	ug/l	475.90	1.8	500000	45	P	
31	**P**	1	**4724.000**	ug/l	4,724.00	1.7	500000	45	P	
39	**K**	1	**4881.000**	ug/l	4,881.00	1.6	500000	45	A	
44	**Ca**	1	**4893.000**	ug/l	4,893.00	1.6	500000	45	P	
47	**Ti**	1	**48.820**	ug/l	48.82	2.0	5000	45	P	
51	**V**	1	**47.850**	ug/l	47.85	1.8	5000	45	P	
52	**Cr**	1	**47.480**	ug/l	47.48	1.8	5000	45	P	
55	**Mn**	1	**49.650**	ug/l	49.65	1.6	5000	45	P	
57	**Fe**	1	**4885.000**	ug/l	4,885.00	0.6	500000	74	A	
59	**Co**	1	**48.180**	ug/l	48.18	2.4	5000	45	P	
60	**Ni**	1	**48.430**	ug/l	48.43	0.8	5000	74	P	
63	**Cu**	1	**49.300**	ug/l	49.30	1.2	5000	74	P	
66	**Zn**	1	**49.560**	ug/l	49.56	1.7	5000	74	P	
75	**As**	1	**48.750**	ug/l	48.75	1.5	5000	74	P	
78	**Se**	1	**48.540**	ug/l	48.54	1.9	5000	74	P	
88	**Sr**	1	**49.660**	ug/l	49.66	1.3	5000	74	P	
95	**Mo**	1	**48.490**	ug/l	48.49	0.4	5000	103	P	
109	**Ag**	1	**48.080**	ug/l	48.08	0.7	200	103	P	
111	**Cd**	1	**49.500**	ug/l	49.50	0.1	5000	103	P	
118	**Sn**	1	**50.640**	ug/l	50.64	0.1	5000	103	P	
123	**Sb**	1	**49.890**	ug/l	49.89	0.5	5000	103	P	
135	**Ba**	1	**50.430**	ug/l	50.43	1.1	5000	103	P	
200	**Hg**	1	**2.409**	ug/l	2.41	3.5	50	209	P	
205	**Tl**	1	**48.280**	ug/l	48.28	3.0	5000	103	P	
208	**Pb**	1	**48.500**	ug/l	48.50	2.6	5000	209	P	
238	**U**	1	**49.300**	ug/l	49.30	0.6	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	145406	0.64	174500	**83.3**	30	-	125	
45	Sc	1	1906597	1.53	2091000	**91.2**	30	-	125	
74	Ge	1	4187181	1.32	4536000	**92.3**	30	-	125	
103	Rh	1	5533908	0.48	6076000	**91.1**	30	-	125	
165	Ho	1	2512629	0.69	2580000	**97.4**	30	-	125	
175	Lu	1	2100906	1.39	2136000	**98.4**	30	-	125	
209	Bi	1	2493718	1.63	2616000	**95.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\098SMPL.D\098SMPL.D#
Date Acquired: Sep 27 2011 03:03 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.005**	ug/l	0.00	32.2	5000	6	P	
23	Na	1	**38.290**	ug/l	38.29	3.5	500000	45	P	
24	Mg	1	**0.673**	ug/l	0.67	9.0	500000	45	P	
27	Al	1	**0.052**	ug/l	0.05	282.3	500000	45	P	
31	P	1	**-6.010**	ug/l	-6.01	33.8	500000	45	P	
39	K	1	**-1.216**	ug/l	-1.22	69.3	500000	45	P	
44	Ca	1	**-1.331**	ug/l	-1.33	30.2	500000	45	P	
47	Ti	1	**0.055**	ug/l	0.05	40.9	5000	45	P	
51	V	1	**-0.015**	ug/l	-0.02	89.8	5000	45	P	
52	Cr	1	**0.170**	ug/l	0.17	0.9	5000	45	P	
55	Mn	1	**0.131**	ug/l	0.13	7.8	5000	45	P	
57	Fe	1	**4.534**	ug/l	4.53	16.1	500000	74	P	
59	Co	1	**0.009**	ug/l	0.01	36.8	5000	45	P	
60	Ni	1	**0.027**	ug/l	0.03	49.2	5000	74	P	
63	Cu	1	**0.215**	ug/l	0.21	5.0	5000	74	P	
66	Zn	1	**-0.018**	ug/l	-0.02	135.2	5000	74	P	
75	As	1	**0.016**	ug/l	0.02	125.2	5000	74	P	
78	Se	1	**0.093**	ug/l	0.09	111.1	5000	74	P	
88	Sr	1	**-0.005**	ug/l	0.00	116.0	5000	74	P	
95	Mo	1	**0.151**	ug/l	0.15	22.3	5000	103	P	
109	Ag	1	**0.002**	ug/l	0.00	41.5	200	103	P	
111	Cd	1	**0.000**	ug/l	0.00	2260.4	5000	103	P	
118	Sn	1	**0.351**	ug/l	0.35	14.6	5000	103	P	
123	Sb	1	**0.070**	ug/l	0.07	31.9	5000	103	P	
135	Ba	1	**0.010**	ug/l	0.01	121.6	5000	103	P	
200	Hg	1	**0.011**	ug/l	0.01	21.9	50	209	P	
205	Tl	1	**0.455**	ug/l	0.46	8.1	5000	103	P	
208	Pb	1	**-0.002**	ug/l	0.00	500.0	5000	209	P	
238	U	1	**0.019**	ug/l	0.02	22.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	146977	0.98	174500	**84.2**	30	-	125	
45	Sc	1	1904668	1.00	2091000	**91.1**	30	-	125	
74	Ge	1	4189161	0.87	4536000	**92.4**	30	-	125	
103	Rh	1	5637414	0.41	6076000	**92.8**	30	-	125	
165	Ho	1	2516029	1.00	2580000	**97.5**	30	-	125	
175	Lu	1	2078101	0.41	2136000	**97.3**	30	-	125	
209	Bi	1	2575377	1.41	2616000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\099SMPL.D\099SMPL.D#
Date Acquired: Sep 27 2011 03:07 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28693-I-1-C Vial Number: 3401
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	0.00	170.0	5000	6	P	
23	**Na**	1	**3572.000**	ug/l	3,572.00	1.5	500000	45	A	
24	**Mg**	1	**95430.000**	ug/l	95,430.00	1.4	500000	45	A	
27	**Al**	1	**20.320**	ug/l	20.32	8.8	500000	45	P	
31	**P**	1	**262.300**	ug/l	262.30	1.5	500000	45	P	
39	**K**	1	**1938.000**	ug/l	1,938.00	0.1	500000	45	A	
44	**Ca**	1	**183500.000**	ug/l	183,500.00	1.5	500000	45	A	
47	**Ti**	1	**1.581**	ug/l	1.58	5.0	5000	45	P	
51	**V**	1	**0.968**	ug/l	0.97	4.2	5000	45	P	
52	**Cr**	1	**0.187**	ug/l	0.19	13.0	5000	45	P	
55	**Mn**	1	**354.800**	ug/l	354.80	1.6	5000	45	A	
57	**Fe**	1	**438.000**	ug/l	438.00	0.6	500000	74	P	
59	**Co**	1	**1.008**	ug/l	1.01	3.2	5000	45	P	
60	**Ni**	1	**70.120**	ug/l	70.12	1.3	5000	74	P	
63	**Cu**	1	**1.024**	ug/l	1.02	2.1	5000	74	P	
66	**Zn**	1	**1.359**	ug/l	1.36	4.3	5000	74	P	
75	**As**	1	**0.754**	ug/l	0.75	7.4	5000	74	P	
78	**Se**	1	**0.094**	ug/l	0.09	24.9	5000	74	P	
88	**Sr**	1	**1154.000**	ug/l	1,154.00	0.9	5000	74	A	
95	**Mo**	1	**0.224**	ug/l	0.22	11.2	5000	103	P	
109	**Ag**	1	**0.043**	ug/l	0.04	18.3	200	103	P	
111	**Cd**	1	**0.031**	ug/l	0.03	50.9	5000	103	P	
118	**Sn**	1	**0.312**	ug/l	0.31	5.7	5000	103	P	
123	**Sb**	1	**0.158**	ug/l	0.16	5.0	5000	103	P	
135	**Ba**	1	**74.820**	ug/l	74.82	1.3	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.01	73.6	50	209	P	
205	**Tl**	1	**0.195**	ug/l	0.19	15.4	5000	103	P	
208	**Pb**	1	**0.071**	ug/l	0.07	20.3	5000	209	P	
238	**U**	1	**0.410**	ug/l	0.41	5.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	140079	1.38	174500	**80.3**	30	-	125	
45	Sc	1	1804602	1.29	2091000	**86.3**	30	-	125	
74	Ge	1	3894024	0.57	4536000	**85.8**	30	-	125	
103	Rh	1	4895655	0.69	6076000	**80.6**	30	-	125	
165	Ho	1	2337259	0.39	2580000	**90.6**	30	-	125	
175	Lu	1	1994233	0.50	2136000	**93.4**	30	-	125	
209	Bi	1	2228992	2.03	2616000	**85.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\100SMPL.D\100SMPL.D#
Date Acquired: Sep 27 2011 03:12 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28728-A-1-A Vial Number: 3402
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.076**	ug/l	0.08	16.6	5000	6	P	
23	**Na**	1	**3964.000**	ug/l	3,964.00	0.3	500000	45	A	
24	**Mg**	1	**1552.000**	ug/l	1,552.00	1.2	500000	45	A	
27	**Al**	1	**4252.000**	ug/l	4,252.00	1.4	500000	45	A	
31	**P**	1	**536.100**	ug/l	536.10	0.9	500000	45	P	
39	**K**	1	**1442.000**	ug/l	1,442.00	2.4	500000	45	A	
44	**Ca**	1	**5807.000**	ug/l	5,807.00	1.0	500000	45	P	
47	**Ti**	1	**120.500**	ug/l	120.50	1.4	5000	45	P	
51	**V**	1	**11.330**	ug/l	11.33	2.1	5000	45	P	
52	**Cr**	1	**13.600**	ug/l	13.60	1.7	5000	45	P	
55	**Mn**	1	**131.100**	ug/l	131.10	3.1	5000	45	A	
57	**Fe**	1	**4094.000**	ug/l	4,094.00	1.0	500000	74	A	
59	**Co**	1	**2.415**	ug/l	2.42	1.0	5000	45	P	
60	**Ni**	1	**9.692**	ug/l	9.69	1.8	5000	74	P	
63	**Cu**	1	**59.600**	ug/l	59.60	1.5	5000	74	P	
66	**Zn**	1	**490.100**	ug/l	490.10	0.9	5000	74	P	
75	**As**	1	**2.267**	ug/l	2.27	2.2	5000	74	P	
78	**Se**	1	**0.607**	ug/l	0.61	11.9	5000	74	P	
88	**Sr**	1	**44.920**	ug/l	44.92	0.2	5000	74	P	
95	**Mo**	1	**2.042**	ug/l	2.04	2.2	5000	103	P	
109	**Ag**	1	**0.147**	ug/l	0.15	6.6	200	103	P	
111	**Cd**	1	**1.747**	ug/l	1.75	3.5	5000	103	P	
118	**Sn**	1	**2.056**	ug/l	2.06	0.2	5000	103	P	
123	**Sb**	1	**3.640**	ug/l	3.64	3.3	5000	103	P	
135	**Ba**	1	**94.370**	ug/l	94.37	1.7	5000	103	P	
200	**Hg**	1	**0.082**	ug/l	0.08	10.0	50	209	P	
205	**Tl**	1	**0.199**	ug/l	0.20	10.0	5000	103	P	
208	**Pb**	1	**56.480**	ug/l	56.48	2.1	5000	209	P	
238	**U**	1	**0.092**	ug/l	0.09	4.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	141162	0.46	174500	**80.9**	30	-	125	
45	Sc	1	1893501	1.33	2091000	**90.6**	30	-	125	
74	Ge	1	4172626	0.89	4536000	**92.0**	30	-	125	
103	Rh	1	5530399	1.28	6076000	**91.0**	30	-	125	
165	Ho	1	2491010	0.79	2580000	**96.6**	30	-	125	
175	Lu	1	2105331	1.46	2136000	**98.6**	30	-	125	
209	Bi	1	2500921	1.76	2616000	**95.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\101SMPL.D\101SMPL.D#
Date Acquired: Sep 27 2011 03:16 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28728-A-2-A Vial Number: 3403
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.000**	ug/l	0.00	10454.0	5000	6	P	
23	Na	1	**637.000**	ug/l	637.00	3.3	500000	45	A	
24	Mg	1	**86.360**	ug/l	86.36	2.1	500000	45	P	
27	Al	1	**45.280**	ug/l	45.28	2.7	500000	45	P	
31	P	1	**128.200**	ug/l	128.20	2.6	500000	45	P	
39	K	1	**61.700**	ug/l	61.70	6.7	500000	45	P	
44	Ca	1	**206.400**	ug/l	206.40	2.6	500000	45	P	
47	Ti	1	**1.015**	ug/l	1.02	3.4	5000	45	P	
51	V	1	**0.355**	ug/l	0.36	5.7	5000	45	P	
52	Cr	1	**0.254**	ug/l	0.25	4.1	5000	45	P	
55	Mn	1	**3.738**	ug/l	3.74	2.7	5000	45	P	
57	Fe	1	**43.450**	ug/l	43.45	6.3	500000	74	P	
59	Co	1	**0.067**	ug/l	0.07	7.7	5000	45	P	
60	Ni	1	**0.296**	ug/l	0.30	3.9	5000	74	P	
63	Cu	1	**4.640**	ug/l	4.64	3.0	5000	74	P	
66	Zn	1	**27.750**	ug/l	27.75	0.8	5000	74	P	
75	As	1	**0.135**	ug/l	0.13	12.2	5000	74	P	
78	Se	1	**0.129**	ug/l	0.13	49.1	5000	74	P	
88	Sr	1	**1.443**	ug/l	1.44	2.1	5000	74	P	
95	Mo	1	**0.070**	ug/l	0.07	18.6	5000	103	P	
109	Ag	1	**0.005**	ug/l	0.00	52.5	200	103	P	
111	Cd	1	**0.193**	ug/l	0.19	10.2	5000	103	P	
118	Sn	1	**0.255**	ug/l	0.25	6.3	5000	103	P	
123	Sb	1	**0.158**	ug/l	0.16	6.1	5000	103	P	
135	Ba	1	**3.042**	ug/l	3.04	2.0	5000	103	P	
200	Hg	1	**0.015**	ug/l	0.01	10.3	50	209	P	
205	Tl	1	**0.104**	ug/l	0.10	16.8	5000	103	P	
208	Pb	1	**4.827**	ug/l	4.83	2.4	5000	209	P	
238	U	1	**0.003**	ug/l	0.00	41.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	143497	0.56	174500	**82.2**	30	-	125	
45	Sc	1	1894668	2.40	2091000	**90.6**	30	-	125	
74	Ge	1	4140198	0.28	4536000	**91.3**	30	-	125	
103	Rh	1	5646986	0.73	6076000	**92.9**	30	-	125	
165	Ho	1	2503036	0.94	2580000	**97.0**	30	-	125	
175	Lu	1	2107053	0.91	2136000	**98.6**	30	-	125	
209	Bi	1	2565291	1.24	2616000	**98.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\102SMPL.D\102SMPL.D#
Date Acquired: Sep 27 2011 03:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28740-F-1-A Vial Number: 3404
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.016**	ug/l	0.02	44.9	5000	6	P	
23	**Na**	1	**331800.000**	ug/l	331,800.00	2.1	500000	45	A	
24	**Mg**	1	**1760.000**	ug/l	1,760.00	2.1	500000	45	A	
27	**Al**	1	**217.200**	ug/l	217.20	2.8	500000	45	P	
31	**P**	1	**11740.000**	ug/l	11,740.00	2.0	500000	45	P	
39	**K**	1	**50880.000**	ug/l	50,880.00	1.5	500000	45	A	
44	**Ca**	1	**23710.000**	ug/l	23,710.00	1.8	500000	45	A	
47	**Ti**	1	**2.470**	ug/l	2.47	4.5	5000	45	P	
51	**V**	1	**6.483**	ug/l	6.48	2.3	5000	45	P	
52	**Cr**	1	**0.803**	ug/l	0.80	6.9	5000	45	P	
55	**Mn**	1	**2.382**	ug/l	2.38	2.4	5000	45	P	
57	**Fe**	1	**348.100**	ug/l	348.10	1.1	500000	74	P	
59	**Co**	1	**1.712**	ug/l	1.71	3.3	5000	45	P	
60	**Ni**	1	**27.380**	ug/l	27.38	1.8	5000	74	P	
63	**Cu**	1	**2.987**	ug/l	2.99	2.8	5000	74	P	
66	**Zn**	1	**34.230**	ug/l	34.23	1.7	5000	74	P	
75	**As**	1	**5.735**	ug/l	5.74	1.9	5000	74	P	
78	**Se**	1	**0.740**	ug/l	0.74	7.6	5000	74	P	
88	**Sr**	1	**241.500**	ug/l	241.50	0.7	5000	74	A	
95	**Mo**	1	**53.250**	ug/l	53.25	1.4	5000	103	P	
109	**Ag**	1	**0.007**	ug/l	0.01	10.0	200	103	P	
111	**Cd**	1	**0.038**	ug/l	0.04	45.4	5000	103	P	
118	**Sn**	1	**7.002**	ug/l	7.00	3.2	5000	103	P	
123	**Sb**	1	**8.552**	ug/l	8.55	0.5	5000	103	P	
135	**Ba**	1	**2.183**	ug/l	2.18	2.8	5000	103	P	
200	**Hg**	1	**0.211**	ug/l	0.21	8.3	50	209	P	
205	**Tl**	1	**0.015**	ug/l	0.02	19.1	5000	103	P	
208	**Pb**	1	**1.236**	ug/l	1.24	4.4	5000	209	P	
238	**U**	1	**0.016**	ug/l	0.02	13.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	134098	0.95	174500	**76.8**	30	-	125	
45	Sc	1	1833743	2.18	2091000	**87.7**	30	-	125	
74	Ge	1	3921170	0.66	4536000	**86.4**	30	-	125	
103	Rh	1	4898644	0.67	6076000	**80.6**	30	-	125	
165	Ho	1	2315442	1.36	2580000	**89.7**	30	-	125	
175	Lu	1	1940631	1.36	2136000	**90.9**	30	-	125	
209	Bi	1	2112847	2.14	2616000	**80.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\103SMPL.D\103SMPL.D#
Date Acquired: Sep 27 2011 03:25 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28735-A-1-A Vial Number: 3405
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.511**	ug/l	0.51	7.1	5000	6	P	
23	**Na**	1	**46020.000**	ug/l	46,020.00	0.1	500000	45	A	
24	**Mg**	1	**18940.000**	ug/l	18,940.00	1.1	500000	45	A	
27	**Al**	1	**20880.000**	ug/l	20,880.00	1.0	500000	45	A	
31	**P**	1	**3874.000**	ug/l	3,874.00	1.3	500000	45	P	
39	**K**	1	**19510.000**	ug/l	19,510.00	0.5	500000	45	A	
44	**Ca**	1	**488600.000**	ug/l	488,600.00	0.6	500000	45	A	
47	**Ti**	1	**787.200**	ug/l	787.20	0.6	5000	45	P	
51	**V**	1	**58.400**	ug/l	58.40	0.3	5000	45	P	
52	**Cr**	1	**80.890**	ug/l	80.89	2.7	5000	45	P	
55	**Mn**	1	**922.500**	ug/l	922.50	1.8	5000	45	A	
57	**Fe**	1	**44340.000**	ug/l	44,340.00	1.7	500000	74	A	
59	**Co**	1	**22.700**	ug/l	22.70	0.5	5000	45	P	
60	**Ni**	1	**84.570**	ug/l	84.57	1.4	5000	74	P	
63	**Cu**	1	**347.500**	ug/l	347.50	0.7	5000	74	A	
66	**Zn**	1	**1793.000**	ug/l	1,793.00	1.9	5000	74	A	
75	**As**	1	**29.110**	ug/l	29.11	1.3	5000	74	P	
78	**Se**	1	**1.846**	ug/l	1.85	11.3	5000	74	P	
88	**Sr**	1	**1724.000**	ug/l	1,724.00	0.6	5000	74	A	
95	**Mo**	1	**29.460**	ug/l	29.46	5.5	5000	103	P	
109	**Ag**	1	**1.687**	ug/l	1.69	0.8	200	103	P	
111	**Cd**	1	**4.583**	ug/l	4.58	1.6	5000	103	P	
118	**Sn**	1	**19.980**	ug/l	19.98	2.3	5000	103	P	
123	**Sb**	1	**10.730**	ug/l	10.73	1.7	5000	103	P	
135	**Ba**	1	**582.400**	ug/l	582.40	1.8	5000	103	P	
200	**Hg**	1	**1.128**	ug/l	1.13	2.0	50	209	P	
205	**Tl**	1	**0.251**	ug/l	0.25	5.0	5000	103	P	
208	**Pb**	1	**439.600**	ug/l	439.60	0.2	5000	209	A	
238	**U**	1	**1.560**	ug/l	1.56	1.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	123116	1.35	174500	**70.6**	30	-	125	
45	Sc	1	1810948	0.43	2091000	**86.6**	30	-	125	
74	Ge	1	3848522	0.80	4536000	**84.8**	30	-	125	
103	Rh	1	4941450	0.82	6076000	**81.3**	30	-	125	
165	Ho	1	2359366	1.11	2580000	**91.4**	30	-	125	
175	Lu	1	1960225	1.64	2136000	**91.8**	30	-	125	
209	Bi	1	2243658	0.70	2616000	**85.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\105SMPL.D\105SMPL.D#
Date Acquired: Sep 27 2011 03:33 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.740**	ug/l	50.74	0.7	5000	6	P	
23	**Na**	1	**4823.000**	ug/l	4,823.00	1.5	500000	45	A	
24	**Mg**	1	**4743.000**	ug/l	4,743.00	1.2	500000	45	A	
27	**Al**	1	**470.400**	ug/l	470.40	0.4	500000	45	P	
31	**P**	1	**4616.000**	ug/l	4,616.00	0.6	500000	45	P	
39	**K**	1	**4928.000**	ug/l	4,928.00	1.4	500000	45	A	
44	**Ca**	1	**4909.000**	ug/l	4,909.00	0.4	500000	45	P	
47	**Ti**	1	**48.930**	ug/l	48.93	0.2	5000	45	P	
51	**V**	1	**47.920**	ug/l	47.92	0.7	5000	45	P	
52	**Cr**	1	**47.500**	ug/l	47.50	0.6	5000	45	P	
55	**Mn**	1	**49.570**	ug/l	49.57	0.8	5000	45	P	
57	**Fe**	1	**4870.000**	ug/l	4,870.00	3.3	500000	74	A	
59	**Co**	1	**48.300**	ug/l	48.30	1.3	5000	45	P	
60	**Ni**	1	**48.430**	ug/l	48.43	0.9	5000	74	P	
63	**Cu**	1	**48.710**	ug/l	48.71	1.2	5000	74	P	
66	**Zn**	1	**48.880**	ug/l	48.88	0.5	5000	74	P	
75	**As**	1	**48.250**	ug/l	48.25	1.1	5000	74	P	
78	**Se**	1	**47.870**	ug/l	47.87	1.8	5000	74	P	
88	**Sr**	1	**49.270**	ug/l	49.27	0.7	5000	74	P	
95	**Mo**	1	**48.460**	ug/l	48.46	0.8	5000	103	P	
109	**Ag**	1	**47.990**	ug/l	47.99	0.6	200	103	P	
111	**Cd**	1	**49.070**	ug/l	49.07	0.9	5000	103	P	
118	**Sn**	1	**49.680**	ug/l	49.68	0.6	5000	103	P	
123	**Sb**	1	**49.890**	ug/l	49.89	0.3	5000	103	P	
135	**Ba**	1	**50.570**	ug/l	50.57	0.3	5000	103	P	
200	**Hg**	1	**2.368**	ug/l	2.37	1.3	50	209	P	
205	**Tl**	1	**47.620**	ug/l	47.62	2.7	5000	103	P	
208	**Pb**	1	**48.100**	ug/l	48.10	1.1	5000	209	P	
238	**U**	1	**48.150**	ug/l	48.15	1.1	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133855	0.99	174500	**76.7**	30	-	125	
45	Sc	1	1894548	0.43	2091000	**90.6**	30	-	125	
74	Ge	1	4204649	1.25	4536000	**92.7**	30	-	125	
103	Rh	1	5547956	0.34	6076000	**91.3**	30	-	125	
165	Ho	1	2517957	1.48	2580000	**97.6**	30	-	125	
175	Lu	1	2104225	1.30	2136000	**98.5**	30	-	125	
209	Bi	1	2523971	0.48	2616000	**96.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\106SMPL.D\106SMPL.D#
Date Acquired: Sep 27 2011 03:38 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.000**	ug/l	0.00	4742.7	5000	6	P	
23	Na	1	**12.100**	ug/l	12.10	12.7	500000	45	P	
24	Mg	1	**0.348**	ug/l	0.35	11.7	500000	45	P	
27	Al	1	**-0.203**	ug/l	-0.20	114.1	500000	45	P	
31	P	1	**-3.376**	ug/l	-3.38	63.6	500000	45	P	
39	K	1	**-0.248**	ug/l	-0.25	548.6	500000	45	P	
44	Ca	1	**-0.930**	ug/l	-0.93	26.1	500000	45	P	
47	Ti	1	**0.082**	ug/l	0.08	31.0	5000	45	P	
51	V	1	**-0.031**	ug/l	-0.03	30.7	5000	45	P	
52	Cr	1	**0.137**	ug/l	0.14	14.3	5000	45	P	
55	Mn	1	**0.026**	ug/l	0.03	7.7	5000	45	P	
57	Fe	1	**2.961**	ug/l	2.96	20.2	500000	74	P	
59	Co	1	**0.000**	ug/l	0.00	32808.0	5000	45	P	
60	Ni	1	**0.035**	ug/l	0.04	43.4	5000	74	P	
63	Cu	1	**0.226**	ug/l	0.23	6.8	5000	74	P	
66	Zn	1	**-0.028**	ug/l	-0.03	57.4	5000	74	P	
75	As	1	**0.015**	ug/l	0.02	28.7	5000	74	P	
78	Se	1	**0.093**	ug/l	0.09	50.8	5000	74	P	
88	Sr	1	**0.007**	ug/l	0.01	164.6	5000	74	P	
95	Mo	1	**0.082**	ug/l	0.08	20.2	5000	103	P	
109	Ag	1	**0.001**	ug/l	0.00	275.2	200	103	P	
111	Cd	1	**0.005**	ug/l	0.00	243.3	5000	103	P	
118	Sn	1	**0.160**	ug/l	0.16	6.2	5000	103	P	
123	Sb	1	**0.037**	ug/l	0.04	35.1	5000	103	P	
135	Ba	1	**-0.006**	ug/l	-0.01	131.0	5000	103	P	
200	Hg	1	**0.015**	ug/l	0.02	29.7	50	209	P	
205	Tl	1	**0.275**	ug/l	0.28	7.9	5000	103	P	
208	Pb	1	**-0.011**	ug/l	-0.01	39.5	5000	209	P	
238	U	1	**0.010**	ug/l	0.01	39.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	140847	1.18	174500	**80.7**	30	-	125	
45	Sc	1	1892972	1.41	2091000	**90.5**	30	-	125	
74	Ge	1	4218524	0.41	4536000	**93.0**	30	-	125	
103	Rh	1	5715014	0.89	6076000	**94.1**	30	-	125	
165	Ho	1	2510064	2.12	2580000	**97.3**	30	-	125	
175	Lu	1	2105674	1.22	2136000	**98.6**	30	-	125	
209	Bi	1	2575994	0.97	2616000	**98.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\107SMPL.D\107SMPL.D#
Date Acquired: Sep 27 2011 03:42 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-96124/10-A Vial Number: 3301
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.00	84.0	5000	6	P	
23	**Na**	1	**9.015**	ug/l	9.02	7.3	500000	45	P	
24	**Mg**	1	**0.303**	ug/l	0.30	19.0	500000	45	P	
27	**Al**	1	**-0.101**	ug/l	-0.10	110.3	500000	45	P	
31	**P**	1	**-7.604**	ug/l	-7.60	8.6	500000	45	P	
39	**K**	1	**-1.754**	ug/l	-1.75	56.8	500000	45	P	
44	**Ca**	1	**-1.169**	ug/l	-1.17	27.5	500000	45	P	
47	**Ti**	1	**0.075**	ug/l	0.08	43.2	5000	45	P	
51	**V**	1	**-0.029**	ug/l	-0.03	37.2	5000	45	P	
52	**Cr**	1	**0.178**	ug/l	0.18	2.3	5000	45	P	
55	**Mn**	1	**0.030**	ug/l	0.03	6.3	5000	45	P	
57	**Fe**	1	**2.375**	ug/l	2.38	9.9	500000	74	P	
59	**Co**	1	**-0.001**	ug/l	0.00	242.6	5000	45	P	
60	**Ni**	1	**0.109**	ug/l	0.11	17.3	5000	74	P	
63	**Cu**	1	**0.259**	ug/l	0.26	2.6	5000	74	P	
66	**Zn**	1	**0.057**	ug/l	0.06	55.8	5000	74	P	
75	**As**	1	**0.005**	ug/l	0.00	217.8	5000	74	P	
78	**Se**	1	**0.110**	ug/l	0.11	48.4	5000	74	P	
88	**Sr**	1	**0.000**	ug/l	0.00	5507.2	5000	74	P	
95	**Mo**	1	**0.022**	ug/l	0.02	43.9	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	118.5	200	103	P	
111	**Cd**	1	**-0.005**	ug/l	0.00	79.8	5000	103	P	
118	**Sn**	1	**0.071**	ug/l	0.07	21.9	5000	103	P	
123	**Sb**	1	**0.015**	ug/l	0.01	28.6	5000	103	P	
135	**Ba**	1	**0.005**	ug/l	0.00	235.7	5000	103	P	
200	**Hg**	1	**0.005**	ug/l	0.00	27.9	50	209	P	
205	**Tl**	1	**0.099**	ug/l	0.10	21.4	5000	103	P	
208	**Pb**	1	**0.003**	ug/l	0.00	112.4	5000	209	P	
238	**U**	1	**0.002**	ug/l	0.00	62.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	138704	1.36	174500	**79.5**	30	-	125	
45	Sc	1	1904700	0.65	2091000	**91.1**	30	-	125	
74	Ge	1	4204059	0.81	4536000	**92.7**	30	-	125	
103	Rh	1	5682746	0.87	6076000	**93.5**	30	-	125	
165	Ho	1	2512576	0.27	2580000	**97.4**	30	-	125	
175	Lu	1	2114535	0.39	2136000	**99.0**	30	-	125	
209	Bi	1	2576947	0.91	2616000	**98.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\108SMPL.D\108SMPL.D#
Date Acquired: Sep 27 2011 03:47 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-96117/20-A Vial Number: 3501
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.01	375.2	5000	6	P	
23	**Na**	1	**6.335**	ug/l	31.68	43.1	500000	45	P	
24	**Mg**	1	**0.682**	ug/l	3.41	11.8	500000	45	P	
27	**Al**	1	**-3.121**	ug/l	-15.61	2.3	500000	45	P	
31	**P**	1	**-4.244**	ug/l	-21.22	36.5	500000	45	P	
39	**K**	1	**-0.472**	ug/l	-2.36	790.5	500000	45	P	
44	**Ca**	1	**-3.690**	ug/l	-18.45	13.0	500000	45	P	
47	**Ti**	1	**0.117**	ug/l	0.58	27.6	5000	45	P	
51	**V**	1	**-0.020**	ug/l	-0.10	50.0	5000	45	P	
52	**Cr**	1	**-0.010**	ug/l	-0.05	61.5	5000	45	P	
55	**Mn**	1	**0.031**	ug/l	0.15	1.9	5000	45	P	
57	**Fe**	1	**3.417**	ug/l	17.09	4.7	500000	74	P	
59	**Co**	1	**-0.001**	ug/l	0.00	208.5	5000	45	P	
60	**Ni**	1	**-0.015**	ug/l	-0.07	43.8	5000	74	P	
63	**Cu**	1	**0.274**	ug/l	1.37	6.1	5000	74	P	
66	**Zn**	1	**3.941**	ug/l	19.71	1.7	5000	74	P	
75	**As**	1	**0.017**	ug/l	0.09	123.9	5000	74	P	
78	**Se**	1	**0.030**	ug/l	0.15	496.6	5000	74	P	
88	**Sr**	1	**0.029**	ug/l	0.14	30.6	5000	74	P	
95	**Mo**	1	**0.017**	ug/l	0.08	23.2	5000	103	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	159.0	200	103	P	
111	**Cd**	1	**0.001**	ug/l	0.00	2043.5	5000	103	P	
118	**Sn**	1	**0.057**	ug/l	0.28	12.2	5000	103	P	
123	**Sb**	1	**0.012**	ug/l	0.06	57.0	5000	103	P	
135	**Ba**	1	**0.053**	ug/l	0.26	34.8	5000	103	P	
200	**Hg**	1	**0.008**	ug/l	0.04	11.8	50	209	P	
205	**Tl**	1	**0.077**	ug/l	0.39	12.9	5000	103	P	
208	**Pb**	1	**0.000**	ug/l	0.00	1841.2	5000	209	P	
238	**U**	1	**0.001**	ug/l	0.00	54.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	137721	0.60	174500	**78.9**	30	-	125	
45	Sc	1	1896076	3.18	2091000	**90.7**	30	-	125	
74	Ge	1	4215221	0.51	4536000	**92.9**	30	-	125	
103	Rh	1	5736699	1.05	6076000	**94.4**	30	-	125	
165	Ho	1	2535404	0.76	2580000	**98.3**	30	-	125	
175	Lu	1	2120891	0.54	2136000	**99.3**	30	-	125	
209	Bi	1	2570537	1.68	2616000	**98.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\109SMPL.D\109SMPL.D#
Date Acquired: Sep 27 2011 03:51 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-4-E SD Vial Number: 3502
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **25.00** Final Dil Factor: **25.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.10	150.4	5000	6	P	
23	**Na**	1	**3628.000**	ug/l	90,700.00	1.3	500000	45	A	
24	**Mg**	1	**4947.000**	ug/l	123,675.00	1.0	500000	45	A	
27	**Al**	1	**17.290**	ug/l	432.25	4.9	500000	45	P	
31	**P**	1	**27.060**	ug/l	676.50	6.3	500000	45	P	
39	**K**	1	**505.800**	ug/l	12,645.00	1.0	500000	45	A	
44	**Ca**	1	**7213.000**	ug/l	180,325.00	0.2	500000	45	P	
47	**Ti**	1	**2.934**	ug/l	73.35	6.3	5000	45	P	
51	**V**	1	**3.669**	ug/l	91.73	0.4	5000	45	P	
52	**Cr**	1	**0.573**	ug/l	14.32	4.4	5000	45	P	
55	**Mn**	1	**185.100**	ug/l	4,627.50	1.0	5000	45	A	
57	**Fe**	1	**1611.000**	ug/l	40,275.00	2.4	500000	74	P	
59	**Co**	1	**0.288**	ug/l	7.19	3.5	5000	45	P	
60	**Ni**	1	**0.814**	ug/l	20.35	5.5	5000	74	P	
63	**Cu**	1	**0.437**	ug/l	10.93	8.6	5000	74	P	
66	**Zn**	1	**0.731**	ug/l	18.27	1.4	5000	74	P	
75	**As**	1	**2.371**	ug/l	59.28	4.0	5000	74	P	
78	**Se**	1	**0.142**	ug/l	3.56	39.3	5000	74	P	
88	**Sr**	1	**53.250**	ug/l	1,331.25	1.6	5000	74	P	
95	**Mo**	1	**0.145**	ug/l	3.62	11.5	5000	103	P	
109	**Ag**	1	**-0.002**	ug/l	-0.04	18.1	200	103	P	
111	**Cd**	1	**0.014**	ug/l	0.36	167.4	5000	103	P	
118	**Sn**	1	**0.032**	ug/l	0.79	22.1	5000	103	P	
123	**Sb**	1	**0.030**	ug/l	0.76	32.5	5000	103	P	
135	**Ba**	1	**11.190**	ug/l	279.75	1.3	5000	103	P	
200	**Hg**	1	**0.003**	ug/l	0.08	68.4	50	209	P	
205	**Tl**	1	**0.056**	ug/l	1.39	9.1	5000	103	P	
208	**Pb**	1	**0.076**	ug/l	1.90	29.6	5000	209	P	
238	**U**	1	**0.006**	ug/l	0.16	4.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	140358	1.26	174500	**80.4**	30	-	125	
45	Sc	1	1917097	0.61	2091000	**91.7**	30	-	125	
74	Ge	1	4217609	1.41	4536000	**93.0**	30	-	125	
103	Rh	1	5471369	0.98	6076000	**90.0**	30	-	125	
165	Ho	1	2487076	0.33	2580000	**96.4**	30	-	125	
175	Lu	1	2086260	1.27	2136000	**97.7**	30	-	125	
209	Bi	1	2441620	2.71	2616000	**93.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\110SMPL.D\110SMPL.D#
Date Acquired: Sep 27 2011 03:55 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-4-E Vial Number: 3503
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	0.03	122.6	5000	6	P	
23	**Na**	1	**17800.000**	ug/l	89,000.00	1.0	500000	45	A	
24	**Mg**	1	**24230.000**	ug/l	121,150.00	1.7	500000	45	A	
27	**Al**	1	**101.900**	ug/l	509.50	2.3	500000	45	P	
31	**P**	1	**166.100**	ug/l	830.50	2.4	500000	45	P	
39	**K**	1	**2480.000**	ug/l	12,400.00	1.6	500000	45	A	
44	**Ca**	1	**36760.000**	ug/l	183,800.00	1.2	500000	45	A	
47	**Ti**	1	**15.290**	ug/l	76.45	1.2	5000	45	P	
51	**V**	1	**20.390**	ug/l	101.95	2.1	5000	45	P	
52	**Cr**	1	**3.114**	ug/l	15.57	1.5	5000	45	P	
55	**Mn**	1	**897.700**	ug/l	4,488.50	1.4	5000	45	A	
57	**Fe**	1	**8197.000**	ug/l	40,985.00	0.4	500000	74	A	
59	**Co**	1	**1.559**	ug/l	7.80	2.7	5000	45	P	
60	**Ni**	1	**3.806**	ug/l	19.03	1.3	5000	74	P	
63	**Cu**	1	**1.623**	ug/l	8.12	4.2	5000	74	P	
66	**Zn**	1	**1.396**	ug/l	6.98	1.6	5000	74	P	
75	**As**	1	**12.610**	ug/l	63.05	0.5	5000	74	P	
78	**Se**	1	**0.296**	ug/l	1.48	6.7	5000	74	P	
88	**Sr**	1	**273.200**	ug/l	1,366.00	1.1	5000	74	A	
95	**Mo**	1	**0.777**	ug/l	3.89	2.1	5000	103	P	
109	**Ag**	1	**0.002**	ug/l	0.01	132.5	200	103	P	
111	**Cd**	1	**0.049**	ug/l	0.25	69.8	5000	103	P	
118	**Sn**	1	**0.059**	ug/l	0.29	31.7	5000	103	P	
123	**Sb**	1	**0.110**	ug/l	0.55	20.1	5000	103	P	
135	**Ba**	1	**58.430**	ug/l	292.15	0.8	5000	103	P	
200	**Hg**	1	**0.012**	ug/l	0.06	24.5	50	209	P	
205	**Tl**	1	**0.050**	ug/l	0.25	21.4	5000	103	P	
208	**Pb**	1	**0.388**	ug/l	1.94	4.2	5000	209	P	
238	**U**	1	**0.030**	ug/l	0.15	3.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	125387	0.48	174500	**71.9**	30 - 125	
45	Sc	1	1818588	1.94	2091000	**87.0**	30 - 125	
74	Ge	1	4044686	0.66	4536000	**89.2**	30 - 125	
103	Rh	1	5198053	0.61	6076000	**85.6**	30 - 125	
165	Ho	1	2469920	0.25	2580000	**95.7**	30 - 125	
175	Lu	1	2068745	0.39	2136000	**96.9**	30 - 125	
209	Bi	1	2387121	0.88	2616000	**91.3**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\111SMPL.D\111SMPL.D#
Date Acquired: Sep 27 2011 04:00 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-4-F DU Vial Number: 3504
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.019**	ug/l	0.10	42.8	5000	6	P	
23	**Na**	1	**17730.000**	ug/l	88,650.00	1.5	500000	45	A	
24	**Mg**	1	**24070.000**	ug/l	120,350.00	0.5	500000	45	A	
27	**Al**	1	**101.200**	ug/l	506.00	5.3	500000	45	P	
31	**P**	1	**161.800**	ug/l	809.00	1.3	500000	45	P	
39	**K**	1	**2440.000**	ug/l	12,200.00	1.1	500000	45	A	
44	**Ca**	1	**36320.000**	ug/l	181,600.00	0.2	500000	45	A	
47	**Ti**	1	**15.180**	ug/l	75.90	3.2	5000	45	P	
51	**V**	1	**19.900**	ug/l	99.50	1.7	5000	45	P	
52	**Cr**	1	**3.025**	ug/l	15.13	1.7	5000	45	P	
55	**Mn**	1	**873.400**	ug/l	4,367.00	0.7	5000	45	A	
57	**Fe**	1	**8337.000**	ug/l	41,685.00	1.8	500000	74	A	
59	**Co**	1	**1.514**	ug/l	7.57	3.8	5000	45	P	
60	**Ni**	1	**3.761**	ug/l	18.81	3.7	5000	74	P	
63	**Cu**	1	**1.584**	ug/l	7.92	2.3	5000	74	P	
66	**Zn**	1	**1.463**	ug/l	7.32	4.2	5000	74	P	
75	**As**	1	**12.790**	ug/l	63.95	1.3	5000	74	P	
78	**Se**	1	**0.358**	ug/l	1.79	13.4	5000	74	P	
88	**Sr**	1	**277.200**	ug/l	1,386.00	2.1	5000	74	A	
95	**Mo**	1	**0.803**	ug/l	4.02	9.3	5000	103	P	
109	**Ag**	1	**0.003**	ug/l	0.02	71.9	200	103	P	
111	**Cd**	1	**0.058**	ug/l	0.29	52.4	5000	103	P	
118	**Sn**	1	**0.051**	ug/l	0.26	26.5	5000	103	P	
123	**Sb**	1	**0.115**	ug/l	0.57	18.3	5000	103	P	
135	**Ba**	1	**58.810**	ug/l	294.05	0.4	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.03	8.2	50	209	P	
205	**Tl**	1	**0.041**	ug/l	0.20	23.1	5000	103	P	
208	**Pb**	1	**0.379**	ug/l	1.90	6.5	5000	209	P	
238	**U**	1	**0.030**	ug/l	0.15	5.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	127651	1.70	174500	**73.2**	30	-	125	
45	Sc	1	1851519	0.87	2091000	**88.5**	30	-	125	
74	Ge	1	4000582	0.78	4536000	**88.2**	30	-	125	
103	Rh	1	5190264	0.81	6076000	**85.4**	30	-	125	
165	Ho	1	2450552	1.09	2580000	**95.0**	30	-	125	
175	Lu	1	2083098	1.31	2136000	**97.5**	30	-	125	
209	Bi	1	2390414	0.25	2616000	**91.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\112SMPL.D\112SMPL.D#
Date Acquired: Sep 27 2011 04:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-4-G MS Vial Number: 3505
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.262**	ug/l	113.10	2.8	5000	6	P	
23	**Na**	1	**2310.000**	ug/l	115,500.00	1.9	500000	45	A	
24	**Mg**	1	**3020.000**	ug/l	151,000.00	1.4	500000	45	A	
27	**Al**	1	**93.730**	ug/l	4,686.50	2.7	500000	45	P	
31	**P**	1	**429.400**	ug/l	21,470.00	1.9	500000	45	P	
39	**K**	1	**712.100**	ug/l	35,605.00	2.3	500000	45	A	
44	**Ca**	1	**4106.000**	ug/l	205,300.00	1.6	500000	45	P	
47	**Ti**	1	**104.700**	ug/l	5,235.00	1.7	5000	45	P	
51	**V**	1	**22.880**	ug/l	1,144.00	2.5	5000	45	P	
52	**Cr**	1	**8.643**	ug/l	432.15	2.9	5000	45	P	
55	**Mn**	1	**113.300**	ug/l	5,665.00	2.4	5000	45	P	
57	**Fe**	1	**1288.000**	ug/l	64,400.00	1.1	500000	74	P	
59	**Co**	1	**21.340**	ug/l	1,067.00	2.3	5000	45	P	
60	**Ni**	1	**22.080**	ug/l	1,104.00	0.9	5000	74	P	
63	**Cu**	1	**11.260**	ug/l	563.00	1.1	5000	74	P	
66	**Zn**	1	**22.130**	ug/l	1,106.50	1.8	5000	74	P	
75	**As**	1	**88.920**	ug/l	4,446.00	0.7	5000	74	P	
78	**Se**	1	**84.720**	ug/l	4,236.00	0.5	5000	74	P	
88	**Sr**	1	**27.470**	ug/l	1,373.50	1.0	5000	74	P	
95	**Mo**	1	**104.900**	ug/l	5,245.00	1.4	5000	103	P	
109	**Ag**	1	**12.510**	ug/l	625.50	1.0	200	103	P	
111	**Cd**	1	**2.299**	ug/l	114.95	2.0	5000	103	P	
118	**Sn**	1	**103.300**	ug/l	5,165.00	2.1	5000	103	P	
123	**Sb**	1	**64.930**	ug/l	3,246.50	0.8	5000	103	P	
135	**Ba**	1	**94.390**	ug/l	4,719.50	0.4	5000	103	P	
200	**Hg**	1	**1.036**	ug/l	51.80	3.2	50	209	P	
205	**Tl**	1	**90.210**	ug/l	4,510.50	0.4	5000	103	A	
208	**Pb**	1	**21.990**	ug/l	1,099.50	3.7	5000	209	P	
238	**U**	1	**0.003**	ug/l	0.16	53.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	143310	0.51	174500	**82.1**	30	-	125	
45	Sc	1	1919183	2.36	2091000	**91.8**	30	-	125	
74	Ge	1	4184945	1.20	4536000	**92.3**	30	-	125	
103	Rh	1	5547456	0.50	6076000	**91.3**	30	-	125	
165	Ho	1	2457927	1.38	2580000	**95.3**	30	-	125	
175	Lu	1	2059693	1.53	2136000	**96.4**	30	-	125	
209	Bi	1	2426501	2.76	2616000	**92.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\113SMPL.D\113SMPL.D#
Date Acquired: Sep 27 2011 04:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-4-H MSD Vial Number: 3506
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.072**	ug/l	103.60	2.4	5000	6	P	
23	**Na**	1	**2208.000**	ug/l	110,400.00	1.3	500000	45	A	
24	**Mg**	1	**2919.000**	ug/l	145,950.00	1.2	500000	45	A	
27	**Al**	1	**91.360**	ug/l	4,568.00	2.0	500000	45	P	
31	**P**	1	**411.500**	ug/l	20,575.00	2.7	500000	45	P	
39	**K**	1	**687.200**	ug/l	34,360.00	1.3	500000	45	A	
44	**Ca**	1	**3945.000**	ug/l	197,250.00	1.7	500000	45	P	
47	**Ti**	1	**101.600**	ug/l	5,080.00	1.4	5000	45	P	
51	**V**	1	**21.820**	ug/l	1,091.00	2.7	5000	45	P	
52	**Cr**	1	**8.396**	ug/l	419.80	2.4	5000	45	P	
55	**Mn**	1	**108.900**	ug/l	5,445.00	1.9	5000	45	P	
57	**Fe**	1	**1242.000**	ug/l	62,100.00	0.9	500000	74	P	
59	**Co**	1	**20.330**	ug/l	1,016.50	2.4	5000	45	P	
60	**Ni**	1	**21.310**	ug/l	1,065.50	0.7	5000	74	P	
63	**Cu**	1	**10.810**	ug/l	540.50	2.0	5000	74	P	
66	**Zn**	1	**21.240**	ug/l	1,062.00	2.7	5000	74	P	
75	**As**	1	**85.340**	ug/l	4,267.00	1.1	5000	74	P	
78	**Se**	1	**82.160**	ug/l	4,108.00	1.2	5000	74	P	
88	**Sr**	1	**26.270**	ug/l	1,313.50	0.6	5000	74	P	
95	**Mo**	1	**100.500**	ug/l	5,025.00	0.9	5000	103	P	
109	**Ag**	1	**12.020**	ug/l	601.00	1.1	200	103	P	
111	**Cd**	1	**2.145**	ug/l	107.25	1.3	5000	103	P	
118	**Sn**	1	**100.100**	ug/l	5,005.00	1.1	5000	103	P	
123	**Sb**	1	**62.270**	ug/l	3,113.50	0.9	5000	103	P	
135	**Ba**	1	**90.280**	ug/l	4,514.00	0.7	5000	103	P	
200	**Hg**	1	**1.008**	ug/l	50.40	2.6	50	209	P	
205	**Tl**	1	**86.610**	ug/l	4,330.50	1.0	5000	103	A	
208	**Pb**	1	**21.200**	ug/l	1,060.00	5.0	5000	209	P	
238	**U**	1	**0.002**	ug/l	0.10	21.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	148144	0.63	174500	**84.9**	30	-	125	
45	Sc	1	1942079	1.71	2091000	**92.9**	30	-	125	
74	Ge	1	4224330	0.65	4536000	**93.1**	30	-	125	
103	Rh	1	5607105	0.66	6076000	**92.3**	30	-	125	
165	Ho	1	2506571	0.26	2580000	**97.2**	30	-	125	
175	Lu	1	2080682	0.43	2136000	**97.4**	30	-	125	
209	Bi	1	2439646	3.44	2616000	**93.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\114SMPL.D\114SMPL.D#
Date Acquired: Sep 27 2011 04:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-4-E PDS Vial Number: 3507
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.189**	ug/l	109.45	3.0	5000	6	P	
23	**Na**	1	**2248.000**	ug/l	112,400.00	2.1	500000	45	A	
24	**Mg**	1	**2994.000**	ug/l	149,700.00	2.6	500000	45	A	
27	**Al**	1	**91.850**	ug/l	4,592.50	2.8	500000	45	P	
31	**P**	1	**417.000**	ug/l	20,850.00	2.8	500000	45	P	
39	**K**	1	**701.300**	ug/l	35,065.00	2.9	500000	45	A	
44	**Ca**	1	**4036.000**	ug/l	201,800.00	1.9	500000	45	P	
47	**Ti**	1	**103.400**	ug/l	5,170.00	1.9	5000	45	P	
51	**V**	1	**22.590**	ug/l	1,129.50	2.8	5000	45	P	
52	**Cr**	1	**8.626**	ug/l	431.30	3.0	5000	45	P	
55	**Mn**	1	**111.400**	ug/l	5,570.00	2.5	5000	45	P	
57	**Fe**	1	**1278.000**	ug/l	63,900.00	1.1	500000	74	P	
59	**Co**	1	**21.000**	ug/l	1,050.00	2.3	5000	45	P	
60	**Ni**	1	**21.950**	ug/l	1,097.50	1.4	5000	74	P	
63	**Cu**	1	**11.080**	ug/l	554.00	1.2	5000	74	P	
66	**Zn**	1	**22.050**	ug/l	1,102.50	1.6	5000	74	P	
75	**As**	1	**87.370**	ug/l	4,368.50	1.3	5000	74	P	
78	**Se**	1	**83.870**	ug/l	4,193.50	1.0	5000	74	P	
88	**Sr**	1	**26.850**	ug/l	1,342.50	1.4	5000	74	P	
95	**Mo**	1	**103.600**	ug/l	5,180.00	1.0	5000	103	P	
109	**Ag**	1	**12.370**	ug/l	618.50	1.8	200	103	P	
111	**Cd**	1	**2.201**	ug/l	110.05	1.6	5000	103	P	
118	**Sn**	1	**102.900**	ug/l	5,145.00	1.8	5000	103	P	
123	**Sb**	1	**63.940**	ug/l	3,197.00	1.1	5000	103	P	
135	**Ba**	1	**93.140**	ug/l	4,657.00	0.1	5000	103	P	
200	**Hg**	1	**1.010**	ug/l	50.50	4.6	50	209	P	
205	**Tl**	1	**89.250**	ug/l	4,462.50	0.4	5000	103	A	
208	**Pb**	1	**21.420**	ug/l	1,071.00	6.0	5000	209	P	
238	**U**	1	**0.001**	ug/l	0.07	66.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	145361	0.45	174500	**83.3**	30	-	125	
45	Sc	1	1935935	2.45	2091000	**92.6**	30	-	125	
74	Ge	1	4215833	0.78	4536000	**92.9**	30	-	125	
103	Rh	1	5575654	0.80	6076000	**91.8**	30	-	125	
165	Ho	1	2488678	1.32	2580000	**96.5**	30	-	125	
175	Lu	1	2105631	1.60	2136000	**98.6**	30	-	125	
209	Bi	1	2475487	4.82	2616000	**94.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\115SMPL.D\115SMPL.D#
Date Acquired: Sep 27 2011 04:17 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-96117/21-A Vial Number: 3508
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.022**	ug/l	101.10	5.3	5000	6	P	
23	**Na**	1	**400.400**	ug/l	20,020.00	1.6	500000	45	A	
24	**Mg**	1	**403.000**	ug/l	20,150.00	1.1	500000	45	P	
27	**Al**	1	**77.080**	ug/l	3,854.00	0.4	500000	45	P	
31	**P**	1	**362.200**	ug/l	18,110.00	1.2	500000	45	P	
39	**K**	1	**409.500**	ug/l	20,475.00	0.9	500000	45	P	
44	**Ca**	1	**407.000**	ug/l	20,350.00	1.6	500000	45	P	
47	**Ti**	1	**97.740**	ug/l	4,887.00	1.4	5000	45	P	
51	**V**	1	**19.760**	ug/l	988.00	0.9	5000	45	P	
52	**Cr**	1	**7.911**	ug/l	395.55	1.1	5000	45	P	
55	**Mn**	1	**20.510**	ug/l	1,025.50	1.2	5000	45	P	
57	**Fe**	1	**422.000**	ug/l	21,100.00	1.1	500000	74	P	
59	**Co**	1	**20.190**	ug/l	1,009.50	2.6	5000	45	P	
60	**Ni**	1	**19.860**	ug/l	993.00	1.3	5000	74	P	
63	**Cu**	1	**10.440**	ug/l	522.00	1.0	5000	74	P	
66	**Zn**	1	**19.840**	ug/l	992.00	2.5	5000	74	P	
75	**As**	1	**79.900**	ug/l	3,995.00	0.5	5000	74	P	
78	**Se**	1	**77.920**	ug/l	3,896.00	0.6	5000	74	P	
88	**Sr**	1	**-0.004**	ug/l	-0.19	305.0	5000	74	P	
95	**Mo**	1	**97.650**	ug/l	4,882.50	0.9	5000	103	P	
109	**Ag**	1	**12.050**	ug/l	602.50	0.3	200	103	P	
111	**Cd**	1	**2.074**	ug/l	103.70	1.5	5000	103	P	
118	**Sn**	1	**102.200**	ug/l	5,110.00	0.2	5000	103	P	
123	**Sb**	1	**58.660**	ug/l	2,933.00	0.7	5000	103	P	
135	**Ba**	1	**81.600**	ug/l	4,080.00	1.0	5000	103	P	
200	**Hg**	1	**0.954**	ug/l	47.70	2.1	50	209	P	
205	**Tl**	1	**80.920**	ug/l	4,046.00	5.4	5000	103	A	
208	**Pb**	1	**19.900**	ug/l	995.00	3.0	5000	209	P	
238	**U**	1	**0.000**	ug/l	-0.02	211.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133029	1.44	174500	**76.2**	30	-	125	
45	Sc	1	1863608	1.39	2091000	**89.1**	30	-	125	
74	Ge	1	4186279	0.27	4536000	**92.3**	30	-	125	
103	Rh	1	5658603	0.13	6076000	**93.1**	30	-	125	
165	Ho	1	2504700	0.77	2580000	**97.1**	30	-	125	
175	Lu	1	2135082	2.89	2136000	**100.0**	30	-	125	
209	Bi	1	2565509	1.76	2616000	**98.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\116SMPL.D\116SMPL.D#
Date Acquired: Sep 27 2011 04:22 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-96117/22-A Vial Number: 3509
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.080**	ug/l	104.00	1.4	5000	6	P	
23	**Na**	1	**396.400**	ug/l	19,820.00	0.9	500000	45	A	
24	**Mg**	1	**397.200**	ug/l	19,860.00	0.8	500000	45	P	
27	**Al**	1	**75.430**	ug/l	3,771.50	1.3	500000	45	P	
31	**P**	1	**361.600**	ug/l	18,080.00	1.4	500000	45	P	
39	**K**	1	**403.300**	ug/l	20,165.00	1.2	500000	45	P	
44	**Ca**	1	**400.300**	ug/l	20,015.00	1.4	500000	45	P	
47	**Ti**	1	**96.430**	ug/l	4,821.50	0.4	5000	45	P	
51	**V**	1	**19.570**	ug/l	978.50	1.3	5000	45	P	
52	**Cr**	1	**7.808**	ug/l	390.40	1.0	5000	45	P	
55	**Mn**	1	**20.400**	ug/l	1,020.00	1.7	5000	45	P	
57	**Fe**	1	**420.400**	ug/l	21,020.00	2.1	500000	74	P	
59	**Co**	1	**20.040**	ug/l	1,002.00	1.8	5000	45	P	
60	**Ni**	1	**20.020**	ug/l	1,001.00	0.7	5000	74	P	
63	**Cu**	1	**10.380**	ug/l	519.00	0.4	5000	74	P	
66	**Zn**	1	**20.150**	ug/l	1,007.50	0.8	5000	74	P	
75	**As**	1	**80.340**	ug/l	4,017.00	0.3	5000	74	P	
78	**Se**	1	**78.560**	ug/l	3,928.00	1.3	5000	74	P	
88	**Sr**	1	**0.001**	ug/l	0.07	326.8	5000	74	P	
95	**Mo**	1	**98.090**	ug/l	4,904.50	0.8	5000	103	P	
109	**Ag**	1	**12.100**	ug/l	605.00	1.2	200	103	P	
111	**Cd**	1	**2.111**	ug/l	105.55	5.2	5000	103	P	
118	**Sn**	1	**103.500**	ug/l	5,175.00	1.0	5000	103	P	
123	**Sb**	1	**59.580**	ug/l	2,979.00	1.2	5000	103	P	
135	**Ba**	1	**83.190**	ug/l	4,159.50	0.9	5000	103	P	
200	**Hg**	1	**0.934**	ug/l	46.70	0.9	50	209	P	
205	**Tl**	1	**81.870**	ug/l	4,093.50	5.1	5000	103	A	
208	**Pb**	1	**19.800**	ug/l	990.00	1.7	5000	209	P	
238	**U**	1	**-0.001**	ug/l	-0.06	33.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	132832	1.98	174500	**76.1**	30	-	125	
45	Sc	1	1867631	1.24	2091000	**89.3**	30	-	125	
74	Ge	1	4155578	1.12	4536000	**91.6**	30	-	125	
103	Rh	1	5572010	0.22	6076000	**91.7**	30	-	125	
165	Ho	1	2510678	1.40	2580000	**97.3**	30	-	125	
175	Lu	1	2112600	0.66	2136000	**98.9**	30	-	125	
209	Bi	1	2590475	1.04	2616000	**99.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\117SMPL.D\117SMPL.D#
Date Acquired: Sep 27 2011 04:26 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.120**	ug/l	51.12	1.4	5000	6	P	
23	**Na**	1	**4731.000**	ug/l	4,731.00	1.1	500000	45	A	
24	**Mg**	1	**4691.000**	ug/l	4,691.00	1.1	500000	45	A	
27	**Al**	1	**464.200**	ug/l	464.20	1.6	500000	45	P	
31	**P**	1	**4630.000**	ug/l	4,630.00	1.7	500000	45	P	
39	**K**	1	**4869.000**	ug/l	4,869.00	0.5	500000	45	A	
44	**Ca**	1	**4912.000**	ug/l	4,912.00	1.8	500000	45	P	
47	**Ti**	1	**49.170**	ug/l	49.17	2.3	5000	45	P	
51	**V**	1	**48.430**	ug/l	48.43	1.5	5000	45	P	
52	**Cr**	1	**48.070**	ug/l	48.07	2.3	5000	45	P	
55	**Mn**	1	**50.210**	ug/l	50.21	1.5	5000	45	P	
57	**Fe**	1	**4859.000**	ug/l	4,859.00	1.1	500000	74	A	
59	**Co**	1	**48.730**	ug/l	48.73	1.6	5000	45	P	
60	**Ni**	1	**48.400**	ug/l	48.40	1.3	5000	74	P	
63	**Cu**	1	**48.800**	ug/l	48.80	0.8	5000	74	P	
66	**Zn**	1	**49.330**	ug/l	49.33	0.7	5000	74	P	
75	**As**	1	**48.790**	ug/l	48.79	0.7	5000	74	P	
78	**Se**	1	**48.590**	ug/l	48.59	0.2	5000	74	P	
88	**Sr**	1	**49.710**	ug/l	49.71	0.6	5000	74	P	
95	**Mo**	1	**48.750**	ug/l	48.75	0.8	5000	103	P	
109	**Ag**	1	**48.430**	ug/l	48.43	1.1	200	103	P	
111	**Cd**	1	**49.390**	ug/l	49.39	1.3	5000	103	P	
118	**Sn**	1	**50.300**	ug/l	50.30	1.4	5000	103	P	
123	**Sb**	1	**50.090**	ug/l	50.09	1.4	5000	103	P	
135	**Ba**	1	**50.760**	ug/l	50.76	0.9	5000	103	P	
200	**Hg**	1	**2.342**	ug/l	2.34	1.8	50	209	P	
205	**Tl**	1	**48.760**	ug/l	48.76	4.2	5000	103	M	
208	**Pb**	1	**47.890**	ug/l	47.89	0.8	5000	209	P	
238	**U**	1	**48.720**	ug/l	48.72	0.5	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	130037	0.92	174500	**74.5**	30 - 125	
45	Sc	1	1863175	2.09	2091000	**89.1**	30 - 125	
74	Ge	1	4144219	0.62	4536000	**91.4**	30 - 125	
103	Rh	1	5488846	0.42	6076000	**90.3**	30 - 125	
165	Ho	1	2504303	1.67	2580000	**97.1**	30 - 125	
175	Lu	1	2109375	1.11	2136000	**98.8**	30 - 125	
209	Bi	1	2519257	0.28	2616000	**96.3**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\118SMPL.D\118SMPL.D#
Date Acquired: Sep 27 2011 04:30 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.002**	ug/l	0.00	9.1	5000	6	P	
23	**Na**	1	**-6.628**	ug/l	-6.63	24.8	500000	45	P	
24	**Mg**	1	**0.263**	ug/l	0.26	12.7	500000	45	P	
27	**Al**	1	**-0.402**	ug/l	-0.40	82.3	500000	45	P	
31	**P**	1	**-7.876**	ug/l	-7.88	24.7	500000	45	P	
39	**K**	1	**-2.259**	ug/l	-2.26	137.6	500000	45	P	
44	**Ca**	1	**-1.280**	ug/l	-1.28	30.2	500000	45	P	
47	**Ti**	1	**0.090**	ug/l	0.09	74.9	5000	45	P	
51	**V**	1	**-0.030**	ug/l	-0.03	23.4	5000	45	P	
52	**Cr**	1	**0.148**	ug/l	0.15	20.6	5000	45	P	
55	**Mn**	1	**0.022**	ug/l	0.02	69.7	5000	45	P	
57	**Fe**	1	**2.914**	ug/l	2.91	17.9	500000	74	P	
59	**Co**	1	**0.001**	ug/l	0.00	15.5	5000	45	P	
60	**Ni**	1	**-0.001**	ug/l	0.00	1591.3	5000	74	P	
63	**Cu**	1	**0.039**	ug/l	0.04	48.4	5000	74	P	
66	**Zn**	1	**-0.059**	ug/l	-0.06	44.9	5000	74	P	
75	**As**	1	**0.016**	ug/l	0.02	194.2	5000	74	P	
78	**Se**	1	**0.115**	ug/l	0.11	52.0	5000	74	P	
88	**Sr**	1	**0.003**	ug/l	0.00	145.6	5000	74	P	
95	**Mo**	1	**0.130**	ug/l	0.13	9.0	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	84.3	200	103	P	
111	**Cd**	1	**0.004**	ug/l	0.00	361.4	5000	103	P	
118	**Sn**	1	**0.390**	ug/l	0.39	15.7	5000	103	P	
123	**Sb**	1	**0.057**	ug/l	0.06	18.3	5000	103	P	
135	**Ba**	1	**0.005**	ug/l	0.01	86.8	5000	103	P	
200	**Hg**	1	**0.014**	ug/l	0.01	36.6	50	209	P	
205	**Tl**	1	**0.448**	ug/l	0.45	10.4	5000	103	P	
208	**Pb**	1	**-0.008**	ug/l	-0.01	31.3	5000	209	P	
238	**U**	1	**0.010**	ug/l	0.01	27.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	134634	3.75	174500	**77.2**	30	-	125	
45	Sc	1	1893868	3.13	2091000	**90.6**	30	-	125	
74	Ge	1	4119426	0.37	4536000	**90.8**	30	-	125	
103	Rh	1	5588169	1.12	6076000	**92.0**	30	-	125	
165	Ho	1	2543387	1.20	2580000	**98.6**	30	-	125	
175	Lu	1	2120803	1.21	2136000	**99.3**	30	-	125	
209	Bi	1	2574815	1.33	2616000	**98.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\119SMPL.D\119SMPL.D#
Date Acquired: Sep 27 2011 04:35 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-1-B Vial Number: 4101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.072**	ug/l	0.36	15.1	5000	6	P	
23	**Na**	1	**25570.000**	ug/l	127,850.00	1.1	500000	45	A	
24	**Mg**	1	**44480.000**	ug/l	222,400.00	1.3	500000	45	A	
27	**Al**	1	**1326.000**	ug/l	6,630.00	1.1	500000	45	A	
31	**P**	1	**182.700**	ug/l	913.50	3.3	500000	45	P	
39	**K**	1	**2558.000**	ug/l	12,790.00	0.8	500000	45	A	
44	**Ca**	1	**76550.000**	ug/l	382,750.00	1.9	500000	45	A	
47	**Ti**	1	**42.680**	ug/l	213.40	2.4	5000	45	P	
51	**V**	1	**11.650**	ug/l	58.25	2.4	5000	45	P	
52	**Cr**	1	**3.041**	ug/l	15.21	0.2	5000	45	P	
55	**Mn**	1	**1034.000**	ug/l	5,170.00	2.7	5000	45	A	
57	**Fe**	1	**2023.000**	ug/l	10,115.00	1.9	500000	74	P	
59	**Co**	1	**3.072**	ug/l	15.36	3.6	5000	45	P	
60	**Ni**	1	**12.740**	ug/l	63.70	2.7	5000	74	P	
63	**Cu**	1	**26.840**	ug/l	134.20	2.5	5000	74	P	
66	**Zn**	1	**73.900**	ug/l	369.50	2.7	5000	74	P	
75	**As**	1	**3.142**	ug/l	15.71	2.9	5000	74	P	
78	**Se**	1	**0.835**	ug/l	4.18	8.4	5000	74	P	
88	**Sr**	1	**469.200**	ug/l	2,346.00	0.5	5000	74	A	
95	**Mo**	1	**9.056**	ug/l	45.28	2.4	5000	103	P	
109	**Ag**	1	**0.026**	ug/l	0.13	19.9	200	103	P	
111	**Cd**	1	**0.110**	ug/l	0.55	21.4	5000	103	P	
118	**Sn**	1	**0.335**	ug/l	1.67	22.0	5000	103	P	
123	**Sb**	1	**0.480**	ug/l	2.40	4.6	5000	103	P	
135	**Ba**	1	**58.660**	ug/l	293.30	2.0	5000	103	P	
200	**Hg**	1	**0.016**	ug/l	0.08	19.2	50	209	P	
205	**Tl**	1	**0.210**	ug/l	1.05	17.2	5000	103	P	
208	**Pb**	1	**1.408**	ug/l	7.04	3.5	5000	209	P	
238	**U**	1	**5.625**	ug/l	28.13	1.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	120878	1.49	174500	**69.3**	30 - 125	
45	Sc	1	1789157	1.65	2091000	**85.6**	30 - 125	
74	Ge	1	4015051	1.04	4536000	**88.5**	30 - 125	
103	Rh	1	5065928	0.95	6076000	**83.4**	30 - 125	
165	Ho	1	2465420	0.14	2580000	**95.6**	30 - 125	
175	Lu	1	2059767	2.09	2136000	**96.4**	30 - 125	
209	Bi	1	2332751	1.36	2616000	**89.2**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\120SMPL.D\120SMPL.D#
Date Acquired: Sep 27 2011 04:39 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-2-B Vial Number: 4102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.018**	ug/l	0.09	56.1	5000	6	P	
23	**Na**	1	**15110.000**	ug/l	75,550.00	2.6	500000	45	A	
24	**Mg**	1	**23920.000**	ug/l	119,600.00	2.6	500000	45	A	
27	**Al**	1	**132.900**	ug/l	664.50	3.5	500000	45	P	
31	**P**	1	**148.100**	ug/l	740.50	5.3	500000	45	P	
39	**K**	1	**2690.000**	ug/l	13,450.00	1.0	500000	45	A	
44	**Ca**	1	**43510.000**	ug/l	217,550.00	1.8	500000	45	A	
47	**Ti**	1	**6.981**	ug/l	34.91	0.6	5000	45	P	
51	**V**	1	**11.700**	ug/l	58.50	3.4	5000	45	P	
52	**Cr**	1	**2.099**	ug/l	10.50	3.0	5000	45	P	
55	**Mn**	1	**684.200**	ug/l	3,421.00	2.0	5000	45	A	
57	**Fe**	1	**13700.000**	ug/l	68,500.00	0.8	500000	74	A	
59	**Co**	1	**3.921**	ug/l	19.61	3.2	5000	45	P	
60	**Ni**	1	**8.001**	ug/l	40.01	4.0	5000	74	P	
63	**Cu**	1	**4.965**	ug/l	24.83	3.0	5000	74	P	
66	**Zn**	1	**15.130**	ug/l	75.65	1.8	5000	74	P	
75	**As**	1	**17.910**	ug/l	89.55	1.3	5000	74	P	
78	**Se**	1	**0.352**	ug/l	1.76	11.6	5000	74	P	
88	**Sr**	1	**327.900**	ug/l	1,639.50	0.5	5000	74	A	
95	**Mo**	1	**0.978**	ug/l	4.89	3.1	5000	103	P	
109	**Ag**	1	**0.002**	ug/l	0.01	136.0	200	103	P	
111	**Cd**	1	**0.061**	ug/l	0.31	14.3	5000	103	P	
118	**Sn**	1	**0.256**	ug/l	1.28	19.6	5000	103	P	
123	**Sb**	1	**0.159**	ug/l	0.79	3.9	5000	103	P	
135	**Ba**	1	**81.390**	ug/l	406.95	0.6	5000	103	P	
200	**Hg**	1	**0.013**	ug/l	0.06	27.6	50	209	P	
205	**Tl**	1	**0.148**	ug/l	0.74	12.4	5000	103	P	
208	**Pb**	1	**0.607**	ug/l	3.03	4.2	5000	209	P	
238	**U**	1	**0.099**	ug/l	0.49	0.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	122832	1.32	174500	**70.4**	30	-	125	
45	Sc	1	1809064	2.67	2091000	**86.5**	30	-	125	
74	Ge	1	4026398	1.13	4536000	**88.8**	30	-	125	
103	Rh	1	5210801	0.83	6076000	**85.8**	30	-	125	
165	Ho	1	2460683	1.54	2580000	**95.4**	30	-	125	
175	Lu	1	2062140	0.48	2136000	**96.5**	30	-	125	
209	Bi	1	2384856	0.28	2616000	**91.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\121SMPL.D\121SMPL.D#
Date Acquired: Sep 27 2011 04:43 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28682-O-3-B Vial Number: 4103
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.020**	ug/l	0.10	56.5	5000	6	P	
23	**Na**	1	**15200.000**	ug/l	76,000.00	2.8	500000	45	A	
24	**Mg**	1	**24150.000**	ug/l	120,750.00	3.1	500000	45	A	
27	**Al**	1	**280.300**	ug/l	1,401.50	5.0	500000	45	P	
31	**P**	1	**180.800**	ug/l	904.00	7.8	500000	45	P	
39	**K**	1	**2616.000**	ug/l	13,080.00	2.3	500000	45	A	
44	**Ca**	1	**43640.000**	ug/l	218,200.00	2.8	500000	45	A	
47	**Ti**	1	**14.540**	ug/l	72.70	5.2	5000	45	P	
51	**V**	1	**11.820**	ug/l	59.10	2.3	5000	45	P	
52	**Cr**	1	**2.646**	ug/l	13.23	4.6	5000	45	P	
55	**Mn**	1	**635.200**	ug/l	3,176.00	2.7	5000	45	A	
57	**Fe**	1	**13500.000**	ug/l	67,500.00	0.6	500000	74	A	
59	**Co**	1	**3.995**	ug/l	19.98	3.0	5000	45	P	
60	**Ni**	1	**8.345**	ug/l	41.73	3.0	5000	74	P	
63	**Cu**	1	**5.465**	ug/l	27.33	0.8	5000	74	P	
66	**Zn**	1	**14.810**	ug/l	74.05	0.8	5000	74	P	
75	**As**	1	**18.610**	ug/l	93.05	0.6	5000	74	P	
78	**Se**	1	**0.282**	ug/l	1.41	20.1	5000	74	P	
88	**Sr**	1	**328.500**	ug/l	1,642.50	1.5	5000	74	A	
95	**Mo**	1	**0.927**	ug/l	4.63	1.7	5000	103	P	
109	**Ag**	1	**0.006**	ug/l	0.03	33.6	200	103	P	
111	**Cd**	1	**0.066**	ug/l	0.33	15.8	5000	103	P	
118	**Sn**	1	**0.140**	ug/l	0.70	22.4	5000	103	P	
123	**Sb**	1	**0.150**	ug/l	0.75	9.0	5000	103	P	
135	**Ba**	1	**82.240**	ug/l	411.20	1.2	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.03	49.8	50	209	P	
205	**Tl**	1	**0.100**	ug/l	0.50	8.6	5000	103	P	
208	**Pb**	1	**0.682**	ug/l	3.41	2.1	5000	209	P	
238	**U**	1	**0.041**	ug/l	0.21	6.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	125004	2.30	174500	**71.6**	30 - 125	
45	Sc	1	1816330	2.18	2091000	**86.9**	30 - 125	
74	Ge	1	4024767	0.58	4536000	**88.7**	30 - 125	
103	Rh	1	5232977	1.02	6076000	**86.1**	30 - 125	
165	Ho	1	2461864	2.07	2580000	**95.4**	30 - 125	
175	Lu	1	2050115	1.99	2136000	**96.0**	30 - 125	
209	Bi	1	2399903	0.35	2616000	**91.7**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\122SMPL.D\122SMPL.D#
Date Acquired: Sep 27 2011 04:48 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28628-H-1-A Vial Number: 4104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	0.00	941.2	5000	6	P	
23	**Na**	1	**1764.000**	ug/l	8,820.00	2.9	500000	45	A	
24	**Mg**	1	**1532.000**	ug/l	7,660.00	3.4	500000	45	A	
27	**Al**	1	**47.640**	ug/l	238.20	2.7	500000	45	P	
31	**P**	1	**40.820**	ug/l	204.10	6.6	500000	45	P	
39	**K**	1	**344.400**	ug/l	1,722.00	4.0	500000	45	P	
44	**Ca**	1	**4445.000**	ug/l	22,225.00	2.2	500000	45	P	
47	**Ti**	1	**2.050**	ug/l	10.25	14.4	5000	45	P	
51	**V**	1	**0.679**	ug/l	3.39	4.6	5000	45	P	
52	**Cr**	1	**0.200**	ug/l	1.00	2.7	5000	45	P	
55	**Mn**	1	**331.000**	ug/l	1,655.00	0.6	5000	45	A	
57	**Fe**	1	**666.100**	ug/l	3,330.50	0.6	500000	74	P	
59	**Co**	1	**0.365**	ug/l	1.83	3.8	5000	45	P	
60	**Ni**	1	**0.400**	ug/l	2.00	3.4	5000	74	P	
63	**Cu**	1	**0.691**	ug/l	3.46	5.8	5000	74	P	
66	**Zn**	1	**3.585**	ug/l	17.93	2.3	5000	74	P	
75	**As**	1	**1.659**	ug/l	8.30	1.5	5000	74	P	
78	**Se**	1	**0.133**	ug/l	0.67	73.4	5000	74	P	
88	**Sr**	1	**37.870**	ug/l	189.35	1.8	5000	74	P	
95	**Mo**	1	**0.088**	ug/l	0.44	33.8	5000	103	P	
109	**Ag**	1	**0.002**	ug/l	0.01	97.6	200	103	P	
111	**Cd**	1	**0.190**	ug/l	0.95	5.8	5000	103	P	
118	**Sn**	1	**0.165**	ug/l	0.82	17.2	5000	103	P	
123	**Sb**	1	**0.033**	ug/l	0.17	10.5	5000	103	P	
135	**Ba**	1	**3.556**	ug/l	17.78	3.5	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.03	31.5	50	209	P	
205	**Tl**	1	**0.087**	ug/l	0.44	18.6	5000	103	P	
208	**Pb**	1	**0.621**	ug/l	3.10	1.7	5000	209	P	
238	**U**	1	**0.008**	ug/l	0.04	4.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	124093	0.38	174500	**71.1**	30 - 125	
45	Sc	1	1832763	2.72	2091000	**87.7**	30 - 125	
74	Ge	1	4101768	1.35	4536000	**90.4**	30 - 125	
103	Rh	1	5518386	0.66	6076000	**90.8**	30 - 125	
165	Ho	1	2507489	1.48	2580000	**97.2**	30 - 125	
175	Lu	1	2112580	1.27	2136000	**98.9**	30 - 125	
209	Bi	1	2585435	1.01	2616000	**98.8**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\123SMPL.D\123SMPL.D#
Date Acquired: Sep 27 2011 04:52 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28628-H-3-A Vial Number: 4105
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	0.03	68.7	5000	6	P	
23	**Na**	1	**1845.000**	ug/l	9,225.00	2.8	500000	45	A	
24	**Mg**	1	**1127.000**	ug/l	5,635.00	3.1	500000	45	A	
27	**Al**	1	**118.000**	ug/l	590.00	3.9	500000	45	P	
31	**P**	1	**21.320**	ug/l	106.60	10.4	500000	45	P	
39	**K**	1	**217.700**	ug/l	1,088.50	4.5	500000	45	P	
44	**Ca**	1	**3743.000**	ug/l	18,715.00	2.4	500000	45	P	
47	**Ti**	1	**1.233**	ug/l	6.17	4.3	5000	45	P	
51	**V**	1	**0.633**	ug/l	3.17	3.5	5000	45	P	
52	**Cr**	1	**0.185**	ug/l	0.92	6.3	5000	45	P	
55	**Mn**	1	**166.100**	ug/l	830.50	1.3	5000	45	A	
57	**Fe**	1	**156.500**	ug/l	782.50	1.4	500000	74	P	
59	**Co**	1	**0.212**	ug/l	1.06	6.0	5000	45	P	
60	**Ni**	1	**0.500**	ug/l	2.50	0.5	5000	74	P	
63	**Cu**	1	**1.090**	ug/l	5.45	1.1	5000	74	P	
66	**Zn**	1	**1.109**	ug/l	5.55	3.7	5000	74	P	
75	**As**	1	**0.218**	ug/l	1.09	10.8	5000	74	P	
78	**Se**	1	**0.017**	ug/l	0.09	341.9	5000	74	P	
88	**Sr**	1	**29.250**	ug/l	146.25	0.2	5000	74	P	
95	**Mo**	1	**0.027**	ug/l	0.13	18.1	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	245.5	200	103	P	
111	**Cd**	1	**0.019**	ug/l	0.09	54.9	5000	103	P	
118	**Sn**	1	**0.160**	ug/l	0.80	16.3	5000	103	P	
123	**Sb**	1	**0.039**	ug/l	0.19	15.6	5000	103	P	
135	**Ba**	1	**1.762**	ug/l	8.81	5.4	5000	103	P	
200	**Hg**	1	**0.003**	ug/l	0.02	90.0	50	209	P	
205	**Tl**	1	**0.073**	ug/l	0.36	16.0	5000	103	P	
208	**Pb**	1	**0.157**	ug/l	0.78	6.2	5000	209	P	
238	**U**	1	**0.029**	ug/l	0.15	6.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	124163	2.32	174500	**71.2**	30 - 125	
45	Sc	1	1814903	1.55	2091000	**86.8**	30 - 125	
74	Ge	1	4152767	0.51	4536000	**91.6**	30 - 125	
103	Rh	1	5571472	0.52	6076000	**91.7**	30 - 125	
165	Ho	1	2539383	0.87	2580000	**98.4**	30 - 125	
175	Lu	1	2126236	0.56	2136000	**99.5**	30 - 125	
209	Bi	1	2610096	0.90	2616000	**99.8**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\124SMPL.D\124SMPL.D#
Date Acquired: Sep 27 2011 04:56 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28628-H-2-A Vial Number: 4106
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.894**	ug/l	9.47	8.7	5000	6	P	
23	**Na**	1	**1910.000**	ug/l	9,550.00	1.9	500000	45	A	
24	**Mg**	1	**4701.000**	ug/l	23,505.00	1.9	500000	45	A	
27	**Al**	1	**10670.000**	ug/l	53,350.00	1.6	500000	45	A	
31	**P**	1	**5152.000**	ug/l	25,760.00	2.1	500000	45	P	
39	**K**	1	**809.900**	ug/l	4,049.50	1.9	500000	45	A	
44	**Ca**	1	**11240.000**	ug/l	56,200.00	1.8	500000	45	P	
47	**Ti**	1	**71.920**	ug/l	359.60	0.8	5000	45	P	
51	**V**	1	**169.000**	ug/l	845.00	1.4	5000	45	A	
52	**Cr**	1	**43.250**	ug/l	216.25	1.5	5000	45	P	
55	**Mn**	1	**5136.000**	ug/l	25,680.00	0.4	5000	45	A	Fail
57	**Fe**	1	**217200.000**	ug/l	1,086,000.00	1.4	500000	74	A	
59	**Co**	1	**21.510**	ug/l	107.55	1.3	5000	45	P	
60	**Ni**	1	**63.590**	ug/l	317.95	0.8	5000	74	P	
63	**Cu**	1	**2.230**	ug/l	11.15	3.5	5000	74	P	
66	**Zn**	1	**726.400**	ug/l	3,632.00	1.4	5000	74	A	
75	**As**	1	**8.131**	ug/l	40.66	2.1	5000	74	P	
78	**Se**	1	**0.969**	ug/l	4.85	7.5	5000	74	P	
88	**Sr**	1	**100.700**	ug/l	503.50	1.0	5000	74	P	
95	**Mo**	1	**0.799**	ug/l	4.00	2.2	5000	103	P	
109	**Ag**	1	**0.004**	ug/l	0.02	62.7	200	103	P	
111	**Cd**	1	**0.521**	ug/l	2.60	11.5	5000	103	P	
118	**Sn**	1	**1.563**	ug/l	7.82	2.1	5000	103	P	
123	**Sb**	1	**0.411**	ug/l	2.06	5.2	5000	103	P	
135	**Ba**	1	**261.500**	ug/l	1,307.50	1.0	5000	103	P	
200	**Hg**	1	**0.018**	ug/l	0.09	22.1	50	209	P	
205	**Tl**	1	**0.092**	ug/l	0.46	18.2	5000	103	P	
208	**Pb**	1	**17.240**	ug/l	86.20	1.6	5000	209	P	
238	**U**	1	**0.358**	ug/l	1.79	4.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	113755	0.91	174500	**65.2**	30	-	125	
45	Sc	1	1728259	1.18	2091000	**82.7**	30	-	125	
74	Ge	1	3841906	0.85	4536000	**84.7**	30	-	125	
103	Rh	1	5134123	0.98	6076000	**84.5**	30	-	125	
165	Ho	1	2433862	0.66	2580000	**94.3**	30	-	125	
175	Lu	1	2016367	1.32	2136000	**94.4**	30	-	125	
209	Bi	1	2377421	0.30	2616000	**90.9**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\125SMPL.D\125SMPL.D#
Date Acquired: Sep 27 2011 05:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28628-H-4-A Vial Number: 4107
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.040**	ug/l	5.20	4.6	5000	6	P	
23	**Na**	1	**1799.000**	ug/l	8,995.00	2.4	500000	45	A	
24	**Mg**	1	**1549.000**	ug/l	7,745.00	1.5	500000	45	A	
27	**Al**	1	**261.200**	ug/l	1,306.00	2.3	500000	45	P	
31	**P**	1	**14720.000**	ug/l	73,600.00	2.2	500000	45	M	
39	**K**	1	**294.300**	ug/l	1,471.50	2.6	500000	45	P	
44	**Ca**	1	**6916.000**	ug/l	34,580.00	2.1	500000	45	P	
47	**Ti**	1	**4.198**	ug/l	20.99	3.3	5000	45	P	
51	**V**	1	**68.990**	ug/l	344.95	1.9	5000	45	P	
52	**Cr**	1	**3.716**	ug/l	18.58	3.7	5000	45	P	
55	**Mn**	1	**1376.000**	ug/l	6,880.00	1.3	5000	45	A	
57	**Fe**	1	**383600.000**	ug/l	1,918,000.00	0.8	500000	74	A	
59	**Co**	1	**6.335**	ug/l	31.68	1.7	5000	45	P	
60	**Ni**	1	**12.120**	ug/l	60.60	2.7	5000	74	P	
63	**Cu**	1	**0.096**	ug/l	0.48	6.0	5000	74	P	
66	**Zn**	1	**41.870**	ug/l	209.35	1.0	5000	74	P	
75	**As**	1	**257.500**	ug/l	1,287.50	0.9	5000	74	P	
78	**Se**	1	**0.349**	ug/l	1.75	11.3	5000	74	P	
88	**Sr**	1	**64.470**	ug/l	322.35	1.0	5000	74	P	
95	**Mo**	1	**0.046**	ug/l	0.23	15.7	5000	103	P	
109	**Ag**	1	**0.003**	ug/l	0.01	73.0	200	103	P	
111	**Cd**	1	**0.128**	ug/l	0.64	16.8	5000	103	P	
118	**Sn**	1	**0.115**	ug/l	0.57	1.4	5000	103	P	
123	**Sb**	1	**0.067**	ug/l	0.34	14.9	5000	103	P	
135	**Ba**	1	**16.390**	ug/l	81.95	2.0	5000	103	P	
200	**Hg**	1	**0.011**	ug/l	0.05	24.2	50	209	P	
205	**Tl**	1	**0.062**	ug/l	0.31	17.2	5000	103	P	
208	**Pb**	1	**0.193**	ug/l	0.96	4.3	5000	209	P	
238	**U**	1	**0.027**	ug/l	0.14	7.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	113443	1.73	174500	**65.0**	30	-	125	
45	Sc	1	1627604	1.00	2091000	**77.8**	30	-	125	
74	Ge	1	3670899	0.33	4536000	**80.9**	30	-	125	
103	Rh	1	4953139	0.79	6076000	**81.5**	30	-	125	
165	Ho	1	2317259	1.41	2580000	**89.8**	30	-	125	
175	Lu	1	1959194	0.32	2136000	**91.7**	30	-	125	
209	Bi	1	2305866	0.41	2616000	**88.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\127SMPL.D\127SMPL.D#
Date Acquired: Sep 27 2011 05:10 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**49.720**	ug/l	49.72	1.7	5000	6	P	
23	Na	1	**4697.000**	ug/l	4,697.00	1.6	500000	45	A	
24	Mg	1	**4657.000**	ug/l	4,657.00	1.2	500000	45	A	
27	Al	1	**459.800**	ug/l	459.80	1.6	500000	45	P	
31	P	1	**4526.000**	ug/l	4,526.00	2.0	500000	45	P	
39	K	1	**4807.000**	ug/l	4,807.00	0.8	500000	45	A	
44	Ca	1	**4843.000**	ug/l	4,843.00	1.0	500000	45	P	
47	Ti	1	**48.380**	ug/l	48.38	0.3	5000	45	P	
51	V	1	**47.530**	ug/l	47.53	2.2	5000	45	P	
52	Cr	1	**47.610**	ug/l	47.61	1.9	5000	45	P	
55	Mn	1	**49.640**	ug/l	49.64	1.7	5000	45	P	
57	Fe	1	**4748.000**	ug/l	4,748.00	1.5	500000	74	A	
59	Co	1	**48.350**	ug/l	48.35	1.0	5000	45	P	
60	Ni	1	**47.510**	ug/l	47.51	1.7	5000	74	P	
63	Cu	1	**48.070**	ug/l	48.07	2.0	5000	74	P	
66	Zn	1	**49.260**	ug/l	49.26	2.4	5000	74	P	
75	As	1	**47.910**	ug/l	47.91	1.7	5000	74	P	
78	Se	1	**47.730**	ug/l	47.73	0.9	5000	74	P	
88	Sr	1	**49.300**	ug/l	49.30	1.4	5000	74	P	
95	Mo	1	**48.090**	ug/l	48.09	1.9	5000	103	P	
109	Ag	1	**47.910**	ug/l	47.91	1.6	200	103	P	
111	Cd	1	**49.330**	ug/l	49.33	1.4	5000	103	P	
118	Sn	1	**49.730**	ug/l	49.73	2.3	5000	103	P	
123	Sb	1	**49.950**	ug/l	49.95	1.8	5000	103	P	
135	Ba	1	**51.140**	ug/l	51.14	0.9	5000	103	P	
200	Hg	1	**2.327**	ug/l	2.33	0.6	50	209	P	
205	Tl	1	**48.760**	ug/l	48.76	1.7	5000	103	P	
208	Pb	1	**48.140**	ug/l	48.14	2.1	5000	209	P	
238	U	1	**48.720**	ug/l	48.72	1.7	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129200	0.27	174500	**74.0**	30	-	125	
45	Sc	1	1823630	1.26	2091000	**87.2**	30	-	125	
74	Ge	1	4088253	1.43	4536000	**90.1**	30	-	125	
103	Rh	1	5457045	1.30	6076000	**89.8**	30	-	125	
165	Ho	1	2531474	0.33	2580000	**98.1**	30	-	125	
175	Lu	1	2146678	1.29	2136000	**100.5**	30	-	125	
209	Bi	1	2548945	1.62	2616000	**97.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\128SMPL.D\128SMPL.D#
Date Acquired: Sep 27 2011 05:14 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.000**	ug/l	0.00	26116.0	5000	6	P	
23	**Na**	1	**-10.230**	ug/l	-10.23	9.5	500000	45	P	
24	**Mg**	1	**0.194**	ug/l	0.19	41.8	500000	45	P	
27	**Al**	1	**-0.342**	ug/l	-0.34	91.7	500000	45	P	
31	**P**	1	**-6.702**	ug/l	-6.70	17.8	500000	45	P	
39	**K**	1	**-8.518**	ug/l	-8.52	6.1	500000	45	P	
44	**Ca**	1	**-2.086**	ug/l	-2.09	13.8	500000	45	P	
47	**Ti**	1	**0.022**	ug/l	0.02	52.3	5000	45	P	
51	**V**	1	**-0.051**	ug/l	-0.05	21.3	5000	45	P	
52	**Cr**	1	**0.138**	ug/l	0.14	0.9	5000	45	P	
55	**Mn**	1	**0.116**	ug/l	0.12	7.7	5000	45	P	
57	**Fe**	1	**4.792**	ug/l	4.79	4.9	500000	74	P	
59	**Co**	1	**-0.002**	ug/l	0.00	54.3	5000	45	P	
60	**Ni**	1	**0.032**	ug/l	0.03	32.8	5000	74	P	
63	**Cu**	1	**-0.039**	ug/l	-0.04	26.1	5000	74	P	
66	**Zn**	1	**-0.026**	ug/l	-0.03	75.3	5000	74	P	
75	**As**	1	**-0.007**	ug/l	-0.01	38.1	5000	74	P	
78	**Se**	1	**-0.006**	ug/l	-0.01	1845.8	5000	74	P	
88	**Sr**	1	**-0.010**	ug/l	-0.01	91.7	5000	74	P	
95	**Mo**	1	**0.062**	ug/l	0.06	29.9	5000	103	P	
109	**Ag**	1	**-0.002**	ug/l	0.00	132.2	200	103	P	
111	**Cd**	1	**0.008**	ug/l	0.01	157.3	5000	103	P	
118	**Sn**	1	**0.147**	ug/l	0.15	21.5	5000	103	P	
123	**Sb**	1	**0.035**	ug/l	0.03	37.1	5000	103	P	
135	**Ba**	1	**0.008**	ug/l	0.01	60.8	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.01	41.7	50	209	P	
205	**Tl**	1	**0.301**	ug/l	0.30	11.2	5000	103	P	
208	**Pb**	1	**-0.017**	ug/l	-0.02	78.6	5000	209	P	
238	**U**	1	**0.009**	ug/l	0.01	13.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	127908	1.02	174500	**73.3**	30	-	125	
45	Sc	1	1816492	0.89	2091000	**86.9**	30	-	125	
74	Ge	1	4047190	1.07	4536000	**89.2**	30	-	125	
103	Rh	1	5573426	0.47	6076000	**91.7**	30	-	125	
165	Ho	1	2532618	1.20	2580000	**98.2**	30	-	125	
175	Lu	1	2153779	1.57	2136000	**100.8**	30	-	125	
209	Bi	1	2655379	0.45	2616000	**101.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\129SMPL.D\129SMPL.D#
Date Acquired: Sep 27 2011 05:19 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-1-A Vial Number: 4201
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.020**	ug/l	0.10	68.6	5000	6	P	
23	**Na**	1	**335000.000**	ug/l	1,675,000.00	0.1	500000	45	A	
24	**Mg**	1	**34700.000**	ug/l	173,500.00	0.9	500000	45	A	
27	**Al**	1	**21.100**	ug/l	105.50	3.5	500000	45	P	
31	**P**	1	**204.400**	ug/l	1,022.00	1.4	500000	45	P	
39	**K**	1	**155300.000**	ug/l	776,500.00	1.5	500000	45	A	
44	**Ca**	1	**2040.000**	ug/l	10,200.00	1.4	500000	45	P	
47	**Ti**	1	**69.030**	ug/l	345.15	1.2	5000	45	P	
51	**V**	1	**6.867**	ug/l	34.34	1.9	5000	45	P	
52	**Cr**	1	**17.250**	ug/l	86.25	1.7	5000	45	P	
55	**Mn**	1	**1.979**	ug/l	9.90	0.7	5000	45	P	
57	**Fe**	1	**461.200**	ug/l	2,306.00	0.9	500000	74	P	
59	**Co**	1	**9.569**	ug/l	47.85	2.6	5000	45	P	
60	**Ni**	1	**25.310**	ug/l	126.55	0.9	5000	74	P	
63	**Cu**	1	**3.287**	ug/l	16.44	3.2	5000	74	P	
66	**Zn**	1	**7.464**	ug/l	37.32	0.4	5000	74	P	
75	**As**	1	**3.473**	ug/l	17.37	2.7	5000	74	P	
78	**Se**	1	**0.390**	ug/l	1.95	7.6	5000	74	P	
88	**Sr**	1	**2.794**	ug/l	13.97	0.5	5000	74	P	
95	**Mo**	1	**0.448**	ug/l	2.24	8.1	5000	103	P	
109	**Ag**	1	**0.015**	ug/l	0.07	9.7	200	103	P	
111	**Cd**	1	**0.184**	ug/l	0.92	3.2	5000	103	P	
118	**Sn**	1	**4.644**	ug/l	23.22	0.5	5000	103	P	
123	**Sb**	1	**1.175**	ug/l	5.88	1.9	5000	103	P	
135	**Ba**	1	**16.430**	ug/l	82.15	3.4	5000	103	P	
200	**Hg**	1	**0.041**	ug/l	0.21	11.1	50	209	P	
205	**Tl**	1	**0.123**	ug/l	0.62	9.5	5000	103	P	
208	**Pb**	1	**0.215**	ug/l	1.08	1.8	5000	209	P	
238	**U**	1	**0.596**	ug/l	2.98	0.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	124254	1.06	174500	**71.2**	30	-	125	
45	Sc	1	1722280	2.32	2091000	**82.4**	30	-	125	
74	Ge	1	3709077	0.75	4536000	**81.8**	30	-	125	
103	Rh	1	4752856	1.37	6076000	**78.2**	30	-	125	
165	Ho	1	2286916	1.24	2580000	**88.6**	30	-	125	
175	Lu	1	1911493	0.78	2136000	**89.5**	30	-	125	
209	Bi	1	2134730	0.77	2616000	**81.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\130SMPL.D\130SMPL.D#
Date Acquired: Sep 27 2011 05:23 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-2-A Vial Number: 4202
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.052**	ug/l	0.26	9.6	5000	6	P	
23	**Na**	1	**344400.000**	ug/l	1,722,000.00	1.8	500000	45	A	
24	**Mg**	1	**21140.000**	ug/l	105,700.00	1.7	500000	45	A	
27	**Al**	1	**19.290**	ug/l	96.45	3.9	500000	45	P	
31	**P**	1	**194.900**	ug/l	974.50	3.4	500000	45	P	
39	**K**	1	**158900.000**	ug/l	794,500.00	1.1	500000	45	A	
44	**Ca**	1	**18390.000**	ug/l	91,950.00	1.9	500000	45	A	
47	**Ti**	1	**32.670**	ug/l	163.35	2.1	5000	45	P	
51	**V**	1	**3.258**	ug/l	16.29	0.8	5000	45	P	
52	**Cr**	1	**7.471**	ug/l	37.36	1.7	5000	45	P	
55	**Mn**	1	**3.155**	ug/l	15.78	3.3	5000	45	P	
57	**Fe**	1	**280.300**	ug/l	1,401.50	2.2	500000	74	P	
59	**Co**	1	**3.091**	ug/l	15.46	2.4	5000	45	P	
60	**Ni**	1	**22.540**	ug/l	112.70	1.6	5000	74	P	
63	**Cu**	1	**1.264**	ug/l	6.32	2.2	5000	74	P	
66	**Zn**	1	**10.510**	ug/l	52.55	1.9	5000	74	P	
75	**As**	1	**2.916**	ug/l	14.58	3.0	5000	74	P	
78	**Se**	1	**0.336**	ug/l	1.68	18.3	5000	74	P	
88	**Sr**	1	**253.300**	ug/l	1,266.50	0.1	5000	74	A	
95	**Mo**	1	**0.260**	ug/l	1.30	11.4	5000	103	P	
109	**Ag**	1	**0.004**	ug/l	0.02	34.2	200	103	P	
111	**Cd**	1	**0.087**	ug/l	0.43	19.2	5000	103	P	
118	**Sn**	1	**2.301**	ug/l	11.51	0.5	5000	103	P	
123	**Sb**	1	**0.981**	ug/l	4.91	2.6	5000	103	P	
135	**Ba**	1	**18.320**	ug/l	91.60	1.9	5000	103	P	
200	**Hg**	1	**0.021**	ug/l	0.10	20.7	50	209	P	
205	**Tl**	1	**0.079**	ug/l	0.39	20.0	5000	103	P	
208	**Pb**	1	**0.165**	ug/l	0.83	4.7	5000	209	P	
238	**U**	1	**0.285**	ug/l	1.43	0.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	126426	1.01	174500	**72.5**	30	-	125	
45	Sc	1	1731661	2.01	2091000	**82.8**	30	-	125	
74	Ge	1	3742566	1.18	4536000	**82.5**	30	-	125	
103	Rh	1	4732186	0.06	6076000	**77.9**	30	-	125	
165	Ho	1	2273269	0.96	2580000	**88.1**	30	-	125	
175	Lu	1	1935088	2.30	2136000	**90.6**	30	-	125	
209	Bi	1	2135745	0.78	2616000	**81.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\131SMPL.D\131SMPL.D#
Date Acquired: Sep 27 2011 05:27 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-3-A Vial Number: 4203
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.032**	ug/l	0.16	34.0	5000	6	P	
23	**Na**	1	**349900.000**	ug/l	1,749,500.00	1.7	500000	45	A	
24	**Mg**	1	**32720.000**	ug/l	163,600.00	2.0	500000	45	A	
27	**Al**	1	**21.950**	ug/l	109.75	1.8	500000	45	P	
31	**P**	1	**220.700**	ug/l	1,103.50	0.4	500000	45	P	
39	**K**	1	**161100.000**	ug/l	805,500.00	0.8	500000	45	A	
44	**Ca**	1	**6092.000**	ug/l	30,460.00	1.6	500000	45	P	
47	**Ti**	1	**71.460**	ug/l	357.30	1.4	5000	45	P	
51	**V**	1	**8.377**	ug/l	41.89	2.8	5000	45	P	
52	**Cr**	1	**18.930**	ug/l	94.65	2.3	5000	45	P	
55	**Mn**	1	**3.857**	ug/l	19.29	3.7	5000	45	P	
57	**Fe**	1	**478.800**	ug/l	2,394.00	1.4	500000	74	P	
59	**Co**	1	**11.940**	ug/l	59.70	3.1	5000	45	P	
60	**Ni**	1	**30.640**	ug/l	153.20	2.4	5000	74	P	
63	**Cu**	1	**3.542**	ug/l	17.71	1.8	5000	74	P	
66	**Zn**	1	**8.719**	ug/l	43.60	2.4	5000	74	P	
75	**As**	1	**4.072**	ug/l	20.36	3.1	5000	74	P	
78	**Se**	1	**0.320**	ug/l	1.60	12.6	5000	74	P	
88	**Sr**	1	**13.080**	ug/l	65.40	2.3	5000	74	P	
95	**Mo**	1	**0.560**	ug/l	2.80	2.6	5000	103	P	
109	**Ag**	1	**0.011**	ug/l	0.05	37.2	200	103	P	
111	**Cd**	1	**0.213**	ug/l	1.06	17.0	5000	103	P	
118	**Sn**	1	**4.555**	ug/l	22.78	1.7	5000	103	P	
123	**Sb**	1	**1.348**	ug/l	6.74	5.6	5000	103	P	
135	**Ba**	1	**17.300**	ug/l	86.50	2.8	5000	103	P	
200	**Hg**	1	**0.045**	ug/l	0.23	9.3	50	209	P	
205	**Tl**	1	**0.053**	ug/l	0.26	26.3	5000	103	P	
208	**Pb**	1	**0.245**	ug/l	1.22	4.5	5000	209	P	
238	**U**	1	**0.621**	ug/l	3.10	4.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	128700	1.21	174500	**73.8**	30	-	125	
45	Sc	1	1737412	2.84	2091000	**83.1**	30	-	125	
74	Ge	1	3808347	2.65	4536000	**84.0**	30	-	125	
103	Rh	1	4793564	1.58	6076000	**78.9**	30	-	125	
165	Ho	1	2273206	0.27	2580000	**88.1**	30	-	125	
175	Lu	1	1935869	0.93	2136000	**90.6**	30	-	125	
209	Bi	1	2148630	1.22	2616000	**82.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\132SMPL.D\132SMPL.D#
Date Acquired: Sep 27 2011 05:32 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-4-A Vial Number: 4204
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.056**	ug/l	0.28	43.0	5000	6	P	
23	**Na**	1	**346900.000**	ug/l	1,734,500.00	1.3	500000	45	A	
24	**Mg**	1	**21560.000**	ug/l	107,800.00	2.2	500000	45	A	
27	**Al**	1	**19.880**	ug/l	99.40	3.0	500000	45	P	
31	**P**	1	**212.300**	ug/l	1,061.50	2.6	500000	45	P	
39	**K**	1	**158100.000**	ug/l	790,500.00	1.5	500000	45	A	
44	**Ca**	1	**18540.000**	ug/l	92,700.00	2.1	500000	45	A	
47	**Ti**	1	**40.510**	ug/l	202.55	2.8	5000	45	P	
51	**V**	1	**5.106**	ug/l	25.53	3.5	5000	45	P	
52	**Cr**	1	**10.860**	ug/l	54.30	1.9	5000	45	P	
55	**Mn**	1	**7.918**	ug/l	39.59	2.5	5000	45	P	
57	**Fe**	1	**347.100**	ug/l	1,735.50	1.9	500000	74	P	
59	**Co**	1	**4.418**	ug/l	22.09	3.9	5000	45	P	
60	**Ni**	1	**25.800**	ug/l	129.00	0.3	5000	74	P	
63	**Cu**	1	**1.657**	ug/l	8.29	4.5	5000	74	P	
66	**Zn**	1	**13.200**	ug/l	66.00	0.7	5000	74	P	
75	**As**	1	**3.205**	ug/l	16.03	3.0	5000	74	P	
78	**Se**	1	**0.340**	ug/l	1.70	14.3	5000	74	P	
88	**Sr**	1	**275.900**	ug/l	1,379.50	1.0	5000	74	A	
95	**Mo**	1	**0.346**	ug/l	1.73	4.1	5000	103	P	
109	**Ag**	1	**0.006**	ug/l	0.03	31.3	200	103	P	
111	**Cd**	1	**0.164**	ug/l	0.82	14.4	5000	103	P	
118	**Sn**	1	**2.882**	ug/l	14.41	1.4	5000	103	P	
123	**Sb**	1	**1.111**	ug/l	5.56	4.1	5000	103	P	
135	**Ba**	1	**23.390**	ug/l	116.95	0.8	5000	103	P	
200	**Hg**	1	**0.028**	ug/l	0.14	12.4	50	209	P	
205	**Tl**	1	**0.058**	ug/l	0.29	12.3	5000	103	P	
208	**Pb**	1	**0.194**	ug/l	0.97	3.7	5000	209	P	
238	**U**	1	**0.362**	ug/l	1.81	3.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129943	1.70	174500	**74.5**	30	-	125	
45	Sc	1	1729886	1.91	2091000	**82.7**	30	-	125	
74	Ge	1	3765175	0.43	4536000	**83.0**	30	-	125	
103	Rh	1	4751745	0.19	6076000	**78.2**	30	-	125	
165	Ho	1	2281906	1.43	2580000	**88.4**	30	-	125	
175	Lu	1	1919743	1.34	2136000	**89.9**	30	-	125	
209	Bi	1	2136763	2.07	2616000	**81.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\133SMPL.D\133SMPL.D#
Date Acquired: Sep 27 2011 05:36 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-5-A Vial Number: 4205
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.034**	ug/l	0.17	46.9	5000	6	P	
23	**Na**	1	**349200.000**	ug/l	1,746,000.00	2.6	500000	45	A	
24	**Mg**	1	**30820.000**	ug/l	154,100.00	3.3	500000	45	A	
27	**Al**	1	**21.920**	ug/l	109.60	4.2	500000	45	P	
31	**P**	1	**212.000**	ug/l	1,060.00	3.4	500000	45	P	
39	**K**	1	**159600.000**	ug/l	798,000.00	2.5	500000	45	A	
44	**Ca**	1	**7673.000**	ug/l	38,365.00	2.5	500000	45	P	
47	**Ti**	1	**62.500**	ug/l	312.50	2.8	5000	45	P	
51	**V**	1	**8.755**	ug/l	43.78	4.1	5000	45	P	
52	**Cr**	1	**16.540**	ug/l	82.70	3.0	5000	45	P	
55	**Mn**	1	**7.910**	ug/l	39.55	4.5	5000	45	P	
57	**Fe**	1	**478.000**	ug/l	2,390.00	0.9	500000	74	P	
59	**Co**	1	**13.380**	ug/l	66.90	3.2	5000	45	P	
60	**Ni**	1	**34.290**	ug/l	171.45	1.9	5000	74	P	
63	**Cu**	1	**3.295**	ug/l	16.48	0.9	5000	74	P	
66	**Zn**	1	**9.299**	ug/l	46.50	1.1	5000	74	P	
75	**As**	1	**4.801**	ug/l	24.01	3.6	5000	74	P	
78	**Se**	1	**0.300**	ug/l	1.50	26.7	5000	74	P	
88	**Sr**	1	**18.430**	ug/l	92.15	0.8	5000	74	P	
95	**Mo**	1	**0.451**	ug/l	2.25	10.2	5000	103	P	
109	**Ag**	1	**0.010**	ug/l	0.05	22.7	200	103	P	
111	**Cd**	1	**0.204**	ug/l	1.02	6.5	5000	103	P	
118	**Sn**	1	**3.339**	ug/l	16.70	1.3	5000	103	P	
123	**Sb**	1	**1.292**	ug/l	6.46	1.3	5000	103	P	
135	**Ba**	1	**17.640**	ug/l	88.20	2.3	5000	103	P	
200	**Hg**	1	**0.038**	ug/l	0.19	10.9	50	209	P	
205	**Tl**	1	**0.038**	ug/l	0.19	28.4	5000	103	P	
208	**Pb**	1	**0.454**	ug/l	2.27	4.9	5000	209	P	
238	**U**	1	**0.567**	ug/l	2.83	2.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129007	1.03	174500	**73.9**	30	-	125	
45	Sc	1	1768017	3.61	2091000	**84.6**	30	-	125	
74	Ge	1	3760693	2.00	4536000	**82.9**	30	-	125	
103	Rh	1	4779613	0.88	6076000	**78.7**	30	-	125	
165	Ho	1	2293698	2.10	2580000	**88.9**	30	-	125	
175	Lu	1	1949592	1.04	2136000	**91.3**	30	-	125	
209	Bi	1	2154461	1.34	2616000	**82.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\135SMPL.D\135SMPL.D#
Date Acquired: Sep 27 2011 05:45 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.260**	ug/l	49.26	1.1	5000	6	P	
23	**Na**	1	**4652.000**	ug/l	4,652.00	1.6	500000	45	A	
24	**Mg**	1	**4649.000**	ug/l	4,649.00	1.4	500000	45	A	
27	**Al**	1	**456.000**	ug/l	456.00	0.5	500000	45	P	
31	**P**	1	**4507.000**	ug/l	4,507.00	1.0	500000	45	P	
39	**K**	1	**4814.000**	ug/l	4,814.00	1.7	500000	45	A	
44	**Ca**	1	**4817.000**	ug/l	4,817.00	0.5	500000	45	P	
47	**Ti**	1	**48.250**	ug/l	48.25	0.9	5000	45	P	
51	**V**	1	**47.240**	ug/l	47.24	0.4	5000	45	P	
52	**Cr**	1	**47.200**	ug/l	47.20	0.7	5000	45	P	
55	**Mn**	1	**49.000**	ug/l	49.00	1.0	5000	45	P	
57	**Fe**	1	**4880.000**	ug/l	4,880.00	0.8	500000	74	A	
59	**Co**	1	**47.790**	ug/l	47.79	0.9	5000	45	P	
60	**Ni**	1	**48.300**	ug/l	48.30	0.8	5000	74	P	
63	**Cu**	1	**48.470**	ug/l	48.47	0.3	5000	74	P	
66	**Zn**	1	**48.890**	ug/l	48.89	0.7	5000	74	P	
75	**As**	1	**47.710**	ug/l	47.71	0.5	5000	74	P	
78	**Se**	1	**47.730**	ug/l	47.73	0.6	5000	74	P	
88	**Sr**	1	**49.280**	ug/l	49.28	0.3	5000	74	P	
95	**Mo**	1	**48.120**	ug/l	48.12	1.9	5000	103	P	
109	**Ag**	1	**48.100**	ug/l	48.10	2.7	200	103	P	
111	**Cd**	1	**49.620**	ug/l	49.62	2.1	5000	103	P	
118	**Sn**	1	**50.220**	ug/l	50.22	2.2	5000	103	P	
123	**Sb**	1	**50.420**	ug/l	50.42	2.1	5000	103	P	
135	**Ba**	1	**51.110**	ug/l	51.11	2.8	5000	103	P	
200	**Hg**	1	**2.334**	ug/l	2.33	3.2	50	209	P	
205	**Tl**	1	**48.360**	ug/l	48.36	1.8	5000	103	P	
208	**Pb**	1	**47.880**	ug/l	47.88	2.5	5000	209	P	
238	**U**	1	**48.680**	ug/l	48.68	1.8	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	135610	1.31	174500	**77.7**	30	-	125	
45	Sc	1	1854647	0.50	2091000	**88.7**	30	-	125	
74	Ge	1	4078507	0.25	4536000	**89.9**	30	-	125	
103	Rh	1	5397513	1.86	6076000	**88.8**	30	-	125	
165	Ho	1	2505334	0.65	2580000	**97.1**	30	-	125	
175	Lu	1	2114481	1.60	2136000	**99.0**	30	-	125	
209	Bi	1	2547854	1.88	2616000	**97.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\136SMPL.D\136SMPL.D#
Date Acquired: Sep 27 2011 05:49 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.001**	ug/l	0.00	734.0	5000	6	P	
23	Na	1	**-4.578**	ug/l	-4.58	25.8	500000	45	P	
24	Mg	1	**0.419**	ug/l	0.42	4.8	500000	45	P	
27	Al	1	**-0.224**	ug/l	-0.22	21.2	500000	45	P	
31	P	1	**-6.396**	ug/l	-6.40	9.5	500000	45	P	
39	K	1	**-2.826**	ug/l	-2.83	10.9	500000	45	P	
44	Ca	1	**-1.810**	ug/l	-1.81	13.9	500000	45	P	
47	Ti	1	**0.029**	ug/l	0.03	118.7	5000	45	P	
51	V	1	**-0.041**	ug/l	-0.04	26.9	5000	45	P	
52	Cr	1	**0.134**	ug/l	0.13	8.3	5000	45	P	
55	Mn	1	**0.052**	ug/l	0.05	32.0	5000	45	P	
57	Fe	1	**4.054**	ug/l	4.05	14.7	500000	74	P	
59	Co	1	**0.000**	ug/l	0.00	511.5	5000	45	P	
60	Ni	1	**0.010**	ug/l	0.01	87.0	5000	74	P	
63	Cu	1	**0.002**	ug/l	0.00	248.8	5000	74	P	
66	Zn	1	**-0.023**	ug/l	-0.02	47.7	5000	74	P	
75	As	1	**-0.010**	ug/l	-0.01	53.9	5000	74	P	
78	Se	1	**0.059**	ug/l	0.06	78.8	5000	74	P	
88	Sr	1	**-0.002**	ug/l	0.00	567.5	5000	74	P	
95	Mo	1	**0.066**	ug/l	0.07	18.4	5000	103	P	
109	Ag	1	**-0.002**	ug/l	0.00	44.4	200	103	P	
111	Cd	1	**-0.006**	ug/l	-0.01	151.9	5000	103	P	
118	Sn	1	**0.159**	ug/l	0.16	6.8	5000	103	P	
123	Sb	1	**0.039**	ug/l	0.04	38.4	5000	103	P	
135	Ba	1	**0.000**	ug/l	0.00	2637.2	5000	103	P	
200	Hg	1	**0.009**	ug/l	0.01	21.9	50	209	P	
205	Tl	1	**0.292**	ug/l	0.29	4.4	5000	103	P	
208	Pb	1	**-0.025**	ug/l	-0.02	35.1	5000	209	P	
238	U	1	**0.012**	ug/l	0.01	18.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	135996	1.27	174500	**77.9**	30	-	125	
45	Sc	1	1844028	1.04	2091000	**88.2**	30	-	125	
74	Ge	1	4117489	0.56	4536000	**90.8**	30	-	125	
103	Rh	1	5600953	0.70	6076000	**92.2**	30	-	125	
165	Ho	1	2535714	0.92	2580000	**98.3**	30	-	125	
175	Lu	1	2140201	0.63	2136000	**100.2**	30	-	125	
209	Bi	1	2621394	1.16	2616000	**100.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\139SMPL.D\139SMPL.D#
Date Acquired: Sep 27 2011 06:03 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.440**	ug/l	49.44	0.8	5000	6	P	
23	**Na**	1	**4790.000**	ug/l	4,790.00	0.1	500000	45	A	
24	**Mg**	1	**4787.000**	ug/l	4,787.00	2.4	500000	45	A	
27	**Al**	1	**470.200**	ug/l	470.20	0.7	500000	45	P	
31	**P**	1	**4623.000**	ug/l	4,623.00	0.3	500000	45	P	
39	**K**	1	**4932.000**	ug/l	4,932.00	1.8	500000	45	A	
44	**Ca**	1	**4898.000**	ug/l	4,898.00	0.5	500000	45	P	
47	**Ti**	1	**49.180**	ug/l	49.18	0.7	5000	45	P	
51	**V**	1	**47.950**	ug/l	47.95	0.1	5000	45	P	
52	**Cr**	1	**47.930**	ug/l	47.93	0.2	5000	45	P	
55	**Mn**	1	**49.800**	ug/l	49.80	0.5	5000	45	P	
57	**Fe**	1	**4811.000**	ug/l	4,811.00	0.5	500000	74	A	
59	**Co**	1	**48.240**	ug/l	48.24	1.3	5000	45	P	
60	**Ni**	1	**48.190**	ug/l	48.19	1.7	5000	74	P	
63	**Cu**	1	**48.250**	ug/l	48.25	0.9	5000	74	P	
66	**Zn**	1	**48.950**	ug/l	48.95	2.3	5000	74	P	
75	**As**	1	**48.440**	ug/l	48.44	0.6	5000	74	P	
78	**Se**	1	**47.510**	ug/l	47.51	1.7	5000	74	P	
88	**Sr**	1	**49.570**	ug/l	49.57	0.4	5000	74	P	
95	**Mo**	1	**47.910**	ug/l	47.91	1.1	5000	103	P	
109	**Ag**	1	**47.790**	ug/l	47.79	0.5	200	103	P	
111	**Cd**	1	**49.700**	ug/l	49.70	1.2	5000	103	P	
118	**Sn**	1	**50.210**	ug/l	50.21	2.2	5000	103	P	
123	**Sb**	1	**50.250**	ug/l	50.25	0.9	5000	103	P	
135	**Ba**	1	**50.890**	ug/l	50.89	0.3	5000	103	P	
200	**Hg**	1	**2.336**	ug/l	2.34	2.2	50	209	P	
205	**Tl**	1	**47.690**	ug/l	47.69	3.9	5000	103	P	
208	**Pb**	1	**48.040**	ug/l	48.04	1.2	5000	209	P	
238	**U**	1	**48.920**	ug/l	48.92	0.6	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	135913	0.91	174500	**77.9**	30	-	125	
45	Sc	1	1836550	0.88	2091000	**87.8**	30	-	125	
74	Ge	1	4098932	0.54	4536000	**90.4**	30	-	125	
103	Rh	1	5434346	0.28	6076000	**89.4**	30	-	125	
165	Ho	1	2491190	0.42	2580000	**96.6**	30	-	125	
175	Lu	1	2119552	1.79	2136000	**99.2**	30	-	125	
209	Bi	1	2536486	0.48	2616000	**97.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\140SMPL.D\140SMPL.D#
Date Acquired: Sep 27 2011 06:07 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	0.00	104.1	5000	6	P	
23	**Na**	1	**-10.380**	ug/l	-10.38	10.3	500000	45	P	
24	**Mg**	1	**0.253**	ug/l	0.25	9.9	500000	45	P	
27	**Al**	1	**-0.497**	ug/l	-0.50	13.5	500000	45	P	
31	**P**	1	**-6.955**	ug/l	-6.96	10.9	500000	45	P	
39	**K**	1	**-6.488**	ug/l	-6.49	42.6	500000	45	P	
44	**Ca**	1	**-1.711**	ug/l	-1.71	4.5	500000	45	P	
47	**Ti**	1	**0.025**	ug/l	0.03	24.7	5000	45	P	
51	**V**	1	**-0.039**	ug/l	-0.04	55.7	5000	45	P	
52	**Cr**	1	**0.141**	ug/l	0.14	14.5	5000	45	P	
55	**Mn**	1	**0.045**	ug/l	0.04	10.4	5000	45	P	
57	**Fe**	1	**3.252**	ug/l	3.25	10.9	500000	74	P	
59	**Co**	1	**0.002**	ug/l	0.00	143.6	5000	45	P	
60	**Ni**	1	**0.010**	ug/l	0.01	55.9	5000	74	P	
63	**Cu**	1	**-0.005**	ug/l	0.00	117.1	5000	74	P	
66	**Zn**	1	**-0.061**	ug/l	-0.06	31.3	5000	74	P	
75	**As**	1	**0.002**	ug/l	0.00	566.6	5000	74	P	
78	**Se**	1	**0.102**	ug/l	0.10	12.3	5000	74	P	
88	**Sr**	1	**-0.008**	ug/l	-0.01	85.5	5000	74	P	
95	**Mo**	1	**0.064**	ug/l	0.06	21.0	5000	103	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	124.2	200	103	P	
111	**Cd**	1	**0.003**	ug/l	0.00	81.1	5000	103	P	
118	**Sn**	1	**0.147**	ug/l	0.15	27.2	5000	103	P	
123	**Sb**	1	**0.042**	ug/l	0.04	17.7	5000	103	P	
135	**Ba**	1	**0.002**	ug/l	0.00	360.5	5000	103	P	
200	**Hg**	1	**0.012**	ug/l	0.01	19.1	50	209	P	
205	**Tl**	1	**0.335**	ug/l	0.33	8.4	5000	103	P	
208	**Pb**	1	**-0.011**	ug/l	-0.01	48.4	5000	209	P	
238	**U**	1	**0.010**	ug/l	0.01	19.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	139176	1.53	174500	**79.8**	30	-	125	
45	Sc	1	1862308	1.64	2091000	**89.1**	30	-	125	
74	Ge	1	4125598	0.34	4536000	**91.0**	30	-	125	
103	Rh	1	5589523	0.56	6076000	**92.0**	30	-	125	
165	Ho	1	2517760	0.99	2580000	**97.6**	30	-	125	
175	Lu	1	2147956	0.19	2136000	**100.6**	30	-	125	
209	Bi	1	2629543	1.11	2616000	**100.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\141SMPL.D\141SMPL.D#
Date Acquired: Sep 27 2011 06:11 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-96152/21-A Vial Number: 4301
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	-0.03	0.7	5000	6	P	
23	**Na**	1	**-8.673**	ug/l	-43.37	11.1	500000	45	P	
24	**Mg**	1	**0.648**	ug/l	3.24	1.3	500000	45	P	
27	**Al**	1	**-3.577**	ug/l	-17.89	2.9	500000	45	P	
31	**P**	1	**-5.959**	ug/l	-29.80	31.2	500000	45	P	
39	**K**	1	**-3.464**	ug/l	-17.32	72.0	500000	45	P	
44	**Ca**	1	**-4.285**	ug/l	-21.43	9.2	500000	45	P	
47	**Ti**	1	**0.081**	ug/l	0.41	21.0	5000	45	P	
51	**V**	1	**-0.030**	ug/l	-0.15	14.0	5000	45	P	
52	**Cr**	1	**-0.013**	ug/l	-0.07	101.7	5000	45	P	
55	**Mn**	1	**0.055**	ug/l	0.28	29.8	5000	45	P	
57	**Fe**	1	**3.885**	ug/l	19.43	4.6	500000	74	P	
59	**Co**	1	**-0.001**	ug/l	0.00	13.3	5000	45	P	
60	**Ni**	1	**0.036**	ug/l	0.18	15.3	5000	74	P	
63	**Cu**	1	**0.078**	ug/l	0.39	8.5	5000	74	P	
66	**Zn**	1	**0.044**	ug/l	0.22	43.8	5000	74	P	
75	**As**	1	**0.004**	ug/l	0.02	341.3	5000	74	P	
78	**Se**	1	**0.039**	ug/l	0.20	236.3	5000	74	P	
88	**Sr**	1	**0.018**	ug/l	0.09	71.6	5000	74	P	
95	**Mo**	1	**0.018**	ug/l	0.09	52.2	5000	103	P	
109	**Ag**	1	**-0.001**	ug/l	-0.01	74.3	200	103	P	
111	**Cd**	1	**0.005**	ug/l	0.02	142.2	5000	103	P	
118	**Sn**	1	**0.090**	ug/l	0.45	18.5	5000	103	P	
123	**Sb**	1	**0.011**	ug/l	0.05	26.0	5000	103	P	
135	**Ba**	1	**0.076**	ug/l	0.38	46.3	5000	103	P	
200	**Hg**	1	**0.002**	ug/l	0.01	35.5	50	209	P	
205	**Tl**	1	**0.129**	ug/l	0.65	13.6	5000	103	P	
208	**Pb**	1	**-0.003**	ug/l	-0.02	253.7	5000	209	P	
238	**U**	1	**0.002**	ug/l	0.01	62.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	135552	1.36	174500	**77.7**	30	-	125	
45	Sc	1	1814326	2.03	2091000	**86.8**	30	-	125	
74	Ge	1	4093453	0.29	4536000	**90.2**	30	-	125	
103	Rh	1	5561501	0.89	6076000	**91.5**	30	-	125	
165	Ho	1	2515392	0.39	2580000	**97.5**	30	-	125	
175	Lu	1	2118932	1.82	2136000	**99.2**	30	-	125	
209	Bi	1	2633060	1.18	2616000	**100.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\142SMPL.D\142SMPL.D#
Date Acquired: Sep 27 2011 06:16 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-6-A SD Vial Number: 4302
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **25.00** Final Dil Factor: **25.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	0.12	118.2	5000	6	P	
23	**Na**	1	**67240.000**	ug/l	1,681,000.00	1.5	500000	45	A	
24	**Mg**	1	**4100.000**	ug/l	102,500.00	1.6	500000	45	A	
27	**Al**	1	**1.152**	ug/l	28.80	14.8	500000	45	P	
31	**P**	1	**32.160**	ug/l	804.00	5.2	500000	45	P	
39	**K**	1	**31360.000**	ug/l	784,000.00	2.3	500000	45	A	
44	**Ca**	1	**3572.000**	ug/l	89,300.00	2.4	500000	45	P	
47	**Ti**	1	**8.721**	ug/l	218.03	2.5	5000	45	P	
51	**V**	1	**1.434**	ug/l	35.85	1.4	5000	45	P	
52	**Cr**	1	**2.713**	ug/l	67.83	4.5	5000	45	P	
55	**Mn**	1	**5.421**	ug/l	135.53	1.5	5000	45	P	
57	**Fe**	1	**83.170**	ug/l	2,079.25	0.5	500000	74	P	
59	**Co**	1	**1.170**	ug/l	29.25	2.5	5000	45	P	
60	**Ni**	1	**5.845**	ug/l	146.13	2.0	5000	74	P	
63	**Cu**	1	**0.298**	ug/l	7.44	2.1	5000	74	P	
66	**Zn**	1	**2.885**	ug/l	72.13	3.3	5000	74	P	
75	**As**	1	**0.762**	ug/l	19.05	7.8	5000	74	P	
78	**Se**	1	**0.180**	ug/l	4.50	49.5	5000	74	P	
88	**Sr**	1	**55.160**	ug/l	1,379.00	1.5	5000	74	P	
95	**Mo**	1	**0.077**	ug/l	1.92	5.9	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.01	205.1	200	103	P	
111	**Cd**	1	**0.043**	ug/l	1.06	10.5	5000	103	P	
118	**Sn**	1	**0.451**	ug/l	11.29	2.9	5000	103	P	
123	**Sb**	1	**0.263**	ug/l	6.58	9.3	5000	103	P	
135	**Ba**	1	**9.479**	ug/l	236.98	1.3	5000	103	P	
200	**Hg**	1	**0.016**	ug/l	0.39	5.1	50	209	P	
205	**Tl**	1	**0.090**	ug/l	2.24	11.3	5000	103	P	
208	**Pb**	1	**0.022**	ug/l	0.54	83.4	5000	209	P	
238	**U**	1	**0.079**	ug/l	1.97	9.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	138346	1.25	174500	**79.3**	30	-	125	
45	Sc	1	1856451	2.58	2091000	**88.8**	30	-	125	
74	Ge	1	4071435	0.90	4536000	**89.8**	30	-	125	
103	Rh	1	5213506	0.97	6076000	**85.8**	30	-	125	
165	Ho	1	2430747	0.60	2580000	**94.2**	30	-	125	
175	Lu	1	2054180	0.22	2136000	**96.2**	30	-	125	
209	Bi	1	2328677	1.44	2616000	**89.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\143SMPL.D\143SMPL.D#
Date Acquired: Sep 27 2011 06:20 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-6-A Vial Number: 4303
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.060**	ug/l	0.30	15.1	5000	6	P	
23	**Na**	1	**339300.000**	ug/l	1,696,500.00	1.4	500000	45	A	
24	**Mg**	1	**20850.000**	ug/l	104,250.00	2.0	500000	45	A	
27	**Al**	1	**21.850**	ug/l	109.25	3.5	500000	45	P	
31	**P**	1	**201.800**	ug/l	1,009.00	4.9	500000	45	P	
39	**K**	1	**156200.000**	ug/l	781,000.00	1.1	500000	45	A	
44	**Ca**	1	**18400.000**	ug/l	92,000.00	1.3	500000	45	A	
47	**Ti**	1	**45.030**	ug/l	225.15	1.9	5000	45	P	
51	**V**	1	**8.242**	ug/l	41.21	1.6	5000	45	P	
52	**Cr**	1	**14.330**	ug/l	71.65	1.5	5000	45	P	
55	**Mn**	1	**27.520**	ug/l	137.60	1.7	5000	45	P	
57	**Fe**	1	**404.700**	ug/l	2,023.50	0.5	500000	74	P	
59	**Co**	1	**6.126**	ug/l	30.63	2.6	5000	45	P	
60	**Ni**	1	**30.130**	ug/l	150.65	0.7	5000	74	P	
63	**Cu**	1	**1.983**	ug/l	9.92	2.1	5000	74	P	
66	**Zn**	1	**12.480**	ug/l	62.40	0.7	5000	74	P	
75	**As**	1	**4.029**	ug/l	20.15	1.3	5000	74	P	
78	**Se**	1	**0.402**	ug/l	2.01	28.6	5000	74	P	
88	**Sr**	1	**283.900**	ug/l	1,419.50	1.1	5000	74	A	
95	**Mo**	1	**0.342**	ug/l	1.71	6.5	5000	103	P	
109	**Ag**	1	**0.006**	ug/l	0.03	15.2	200	103	P	
111	**Cd**	1	**0.251**	ug/l	1.25	11.6	5000	103	P	
118	**Sn**	1	**2.259**	ug/l	11.30	3.3	5000	103	P	
123	**Sb**	1	**1.261**	ug/l	6.31	2.0	5000	103	P	
135	**Ba**	1	**50.520**	ug/l	252.60	3.4	5000	103	P	
200	**Hg**	1	**0.037**	ug/l	0.19	3.2	50	209	P	
205	**Tl**	1	**0.064**	ug/l	0.32	19.0	5000	103	P	
208	**Pb**	1	**0.219**	ug/l	1.10	11.8	5000	209	P	
238	**U**	1	**0.423**	ug/l	2.12	2.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	125023	1.50	174500	**71.6**	30	-	125	
45	Sc	1	1713978	1.79	2091000	**82.0**	30	-	125	
74	Ge	1	3711494	0.36	4536000	**81.8**	30	-	125	
103	Rh	1	4691835	1.03	6076000	**77.2**	30	-	125	
165	Ho	1	2253227	1.87	2580000	**87.3**	30	-	125	
175	Lu	1	1904938	1.15	2136000	**89.2**	30	-	125	
209	Bi	1	2120497	2.75	2616000	**81.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\144SMPL.D\144SMPL.D#
Date Acquired: Sep 27 2011 06:25 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-6-B DU Vial Number: 4304
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.053**	ug/l	0.26	19.6	5000	6	P	
23	**Na**	1	**343700.000**	ug/l	1,718,500.00	0.8	500000	45	A	
24	**Mg**	1	**20680.000**	ug/l	103,400.00	0.8	500000	45	A	
27	**Al**	1	**21.820**	ug/l	109.10	2.7	500000	45	P	
31	**P**	1	**198.700**	ug/l	993.50	1.9	500000	45	P	
39	**K**	1	**156600.000**	ug/l	783,000.00	0.5	500000	45	A	
44	**Ca**	1	**18450.000**	ug/l	92,250.00	1.3	500000	45	A	
47	**Ti**	1	**44.990**	ug/l	224.95	1.1	5000	45	P	
51	**V**	1	**8.296**	ug/l	41.48	1.4	5000	45	P	
52	**Cr**	1	**14.230**	ug/l	71.15	1.2	5000	45	P	
55	**Mn**	1	**27.420**	ug/l	137.10	1.1	5000	45	P	
57	**Fe**	1	**413.400**	ug/l	2,067.00	1.7	500000	74	P	
59	**Co**	1	**6.220**	ug/l	31.10	1.8	5000	45	P	
60	**Ni**	1	**30.840**	ug/l	154.20	0.4	5000	74	P	
63	**Cu**	1	**2.004**	ug/l	10.02	1.2	5000	74	P	
66	**Zn**	1	**12.640**	ug/l	63.20	3.5	5000	74	P	
75	**As**	1	**4.170**	ug/l	20.85	2.7	5000	74	P	
78	**Se**	1	**0.386**	ug/l	1.93	3.4	5000	74	P	
88	**Sr**	1	**285.100**	ug/l	1,425.50	1.5	5000	74	A	
95	**Mo**	1	**0.368**	ug/l	1.84	8.6	5000	103	P	
109	**Ag**	1	**0.007**	ug/l	0.04	42.8	200	103	P	
111	**Cd**	1	**0.214**	ug/l	1.07	15.8	5000	103	P	
118	**Sn**	1	**2.342**	ug/l	11.71	0.4	5000	103	P	
123	**Sb**	1	**1.248**	ug/l	6.24	6.2	5000	103	P	
135	**Ba**	1	**50.070**	ug/l	250.35	2.7	5000	103	P	
200	**Hg**	1	**0.037**	ug/l	0.19	15.0	50	209	P	
205	**Tl**	1	**0.061**	ug/l	0.30	12.4	5000	103	P	
208	**Pb**	1	**0.213**	ug/l	1.07	2.7	5000	209	P	
238	**U**	1	**0.418**	ug/l	2.09	3.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	126875	1.69	174500	**72.7**	30	-	125	
45	Sc	1	1733753	1.98	2091000	**82.9**	30	-	125	
74	Ge	1	3716789	0.76	4536000	**81.9**	30	-	125	
103	Rh	1	4724840	0.50	6076000	**77.8**	30	-	125	
165	Ho	1	2272855	0.92	2580000	**88.1**	30	-	125	
175	Lu	1	1905805	1.24	2136000	**89.2**	30	-	125	
209	Bi	1	2114126	0.95	2616000	**80.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\145SMPL.D\145SMPL.D#
Date Acquired: Sep 27 2011 06:29 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-6-C MS Vial Number: 4305
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.971**	ug/l	98.55	4.4	5000	6	P	
23	**Na**	1	**33210.000**	ug/l	1,660,500.00	1.9	500000	45	A	
24	**Mg**	1	**2456.000**	ug/l	122,800.00	2.8	500000	45	A	
27	**Al**	1	**77.990**	ug/l	3,899.50	2.2	500000	45	P	
31	**P**	1	**416.000**	ug/l	20,800.00	1.6	500000	45	P	
39	**K**	1	**15640.000**	ug/l	782,000.00	1.6	500000	45	A	
44	**Ca**	1	**2109.000**	ug/l	105,450.00	1.6	500000	45	P	
47	**Ti**	1	**102.100**	ug/l	5,105.00	1.6	5000	45	P	
51	**V**	1	**20.410**	ug/l	1,020.50	2.2	5000	45	P	
52	**Cr**	1	**9.589**	ug/l	479.45	3.1	5000	45	P	
55	**Mn**	1	**22.730**	ug/l	1,136.50	2.3	5000	45	P	
57	**Fe**	1	**459.100**	ug/l	22,955.00	2.1	500000	74	P	
59	**Co**	1	**20.060**	ug/l	1,003.00	2.5	5000	45	P	
60	**Ni**	1	**22.390**	ug/l	1,119.50	2.6	5000	74	P	
63	**Cu**	1	**10.100**	ug/l	505.00	1.3	5000	74	P	
66	**Zn**	1	**21.620**	ug/l	1,081.00	2.3	5000	74	P	
75	**As**	1	**81.450**	ug/l	4,072.50	1.2	5000	74	P	
78	**Se**	1	**78.280**	ug/l	3,914.00	2.3	5000	74	P	
88	**Sr**	1	**26.050**	ug/l	1,302.50	1.1	5000	74	P	
95	**Mo**	1	**100.000**	ug/l	5,000.00	0.5	5000	103	P	
109	**Ag**	1	**11.630**	ug/l	581.50	0.2	200	103	P	
111	**Cd**	1	**2.048**	ug/l	102.40	4.4	5000	103	P	
118	**Sn**	1	**98.320**	ug/l	4,916.00	1.4	5000	103	P	
123	**Sb**	1	**62.340**	ug/l	3,117.00	1.4	5000	103	P	
135	**Ba**	1	**89.650**	ug/l	4,482.50	0.5	5000	103	P	
200	**Hg**	1	**1.015**	ug/l	50.75	4.1	50	209	P	
205	**Tl**	1	**84.500**	ug/l	4,225.00	0.2	5000	103	A	
208	**Pb**	1	**20.660**	ug/l	1,033.00	4.6	5000	209	P	
238	**U**	1	**0.052**	ug/l	2.58	6.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	146656	1.35	174500	**84.0**	30	-	125	
45	Sc	1	1880868	2.23	2091000	**90.0**	30	-	125	
74	Ge	1	4159829	1.09	4536000	**91.7**	30	-	125	
103	Rh	1	5304078	0.14	6076000	**87.3**	30	-	125	
165	Ho	1	2437429	0.65	2580000	**94.5**	30	-	125	
175	Lu	1	2039516	0.53	2136000	**95.5**	30	-	125	
209	Bi	1	2344954	3.46	2616000	**89.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\146SMPL.D\146SMPL.D#
Date Acquired: Sep 27 2011 06:33 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-6-D MSD Vial Number: 4306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.153**	ug/l	107.65	3.4	5000	6	P	
23	**Na**	1	**36060.000**	ug/l	1,803,000.00	0.6	500000	45	A	
24	**Mg**	1	**2606.000**	ug/l	130,300.00	1.3	500000	45	A	
27	**Al**	1	**83.760**	ug/l	4,188.00	0.5	500000	45	P	
31	**P**	1	**439.200**	ug/l	21,960.00	2.5	500000	45	P	
39	**K**	1	**16850.000**	ug/l	842,500.00	1.5	500000	45	A	
44	**Ca**	1	**2263.000**	ug/l	113,150.00	1.3	500000	45	P	
47	**Ti**	1	**108.300**	ug/l	5,415.00	1.7	5000	45	P	
51	**V**	1	**22.000**	ug/l	1,100.00	2.3	5000	45	P	
52	**Cr**	1	**9.881**	ug/l	494.05	1.4	5000	45	P	
55	**Mn**	1	**24.220**	ug/l	1,211.00	2.4	5000	45	P	
57	**Fe**	1	**493.300**	ug/l	24,665.00	1.8	500000	74	P	
59	**Co**	1	**21.470**	ug/l	1,073.50	2.7	5000	45	P	
60	**Ni**	1	**24.750**	ug/l	1,237.50	0.9	5000	74	P	
63	**Cu**	1	**11.080**	ug/l	554.00	2.4	5000	74	P	
66	**Zn**	1	**23.300**	ug/l	1,165.00	1.4	5000	74	P	
75	**As**	1	**88.060**	ug/l	4,403.00	1.9	5000	74	P	
78	**Se**	1	**85.390**	ug/l	4,269.50	1.9	5000	74	P	
88	**Sr**	1	**28.350**	ug/l	1,417.50	2.1	5000	74	P	
95	**Mo**	1	**109.300**	ug/l	5,465.00	1.0	5000	103	P	
109	**Ag**	1	**12.440**	ug/l	622.00	0.5	200	103	P	
111	**Cd**	1	**2.247**	ug/l	112.35	2.8	5000	103	P	
118	**Sn**	1	**109.500**	ug/l	5,475.00	1.8	5000	103	P	
123	**Sb**	1	**67.600**	ug/l	3,380.00	1.3	5000	103	P	
135	**Ba**	1	**97.390**	ug/l	4,869.50	0.8	5000	103	P	
200	**Hg**	1	**1.096**	ug/l	54.80	2.9	50	209	P	
205	**Tl**	1	**92.300**	ug/l	4,615.00	0.4	5000	103	A	
208	**Pb**	1	**22.340**	ug/l	1,117.00	3.4	5000	209	P	
238	**U**	1	**0.048**	ug/l	2.38	4.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	143207	0.93	174500	**82.1**	30	-	125	
45	Sc	1	1884891	1.48	2091000	**90.1**	30	-	125	
74	Ge	1	4104859	1.59	4536000	**90.5**	30	-	125	
103	Rh	1	5247148	0.50	6076000	**86.4**	30	-	125	
165	Ho	1	2428479	0.69	2580000	**94.1**	30	-	125	
175	Lu	1	2061405	0.81	2136000	**96.5**	30	-	125	
209	Bi	1	2349010	2.89	2616000	**89.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\147SMPL.D\147SMPL.D#
Date Acquired: Sep 27 2011 06:38 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-6-A PDS Vial Number: 4307
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.202**	ug/l	110.10	5.3	5000	6	P	
23	**Na**	1	**32900.000**	ug/l	1,645,000.00	0.5	500000	45	A	
24	**Mg**	1	**2458.000**	ug/l	122,900.00	1.1	500000	45	A	
27	**Al**	1	**86.360**	ug/l	4,318.00	1.0	500000	45	P	
31	**P**	1	**440.400**	ug/l	22,020.00	1.9	500000	45	P	
39	**K**	1	**15480.000**	ug/l	774,000.00	1.0	500000	45	A	
44	**Ca**	1	**2148.000**	ug/l	107,400.00	0.3	500000	45	P	
47	**Ti**	1	**111.000**	ug/l	5,550.00	0.3	5000	45	P	
51	**V**	1	**22.050**	ug/l	1,102.50	0.2	5000	45	P	
52	**Cr**	1	**9.834**	ug/l	491.70	0.2	5000	45	P	
55	**Mn**	1	**24.610**	ug/l	1,230.50	1.6	5000	45	P	
57	**Fe**	1	**500.300**	ug/l	25,015.00	1.3	500000	74	P	
59	**Co**	1	**21.650**	ug/l	1,082.50	1.3	5000	45	P	
60	**Ni**	1	**24.670**	ug/l	1,233.50	0.6	5000	74	P	
63	**Cu**	1	**11.250**	ug/l	562.50	0.4	5000	74	P	
66	**Zn**	1	**24.000**	ug/l	1,200.00	1.6	5000	74	P	
75	**As**	1	**90.550**	ug/l	4,527.50	0.4	5000	74	P	
78	**Se**	1	**87.080**	ug/l	4,354.00	1.3	5000	74	P	
88	**Sr**	1	**26.640**	ug/l	1,332.00	1.3	5000	74	P	
95	**Mo**	1	**112.300**	ug/l	5,615.00	0.8	5000	103	P	
109	**Ag**	1	**12.870**	ug/l	643.50	1.4	200	103	P	
111	**Cd**	1	**2.233**	ug/l	111.65	8.2	5000	103	P	
118	**Sn**	1	**112.600**	ug/l	5,630.00	1.2	5000	103	P	
123	**Sb**	1	**69.270**	ug/l	3,463.50	0.7	5000	103	P	
135	**Ba**	1	**98.400**	ug/l	4,920.00	0.8	5000	103	P	
200	**Hg**	1	**1.131**	ug/l	56.55	2.9	50	209	P	
205	**Tl**	1	**94.340**	ug/l	4,717.00	1.9	5000	103	A	
208	**Pb**	1	**22.970**	ug/l	1,148.50	3.6	5000	209	P	
238	**U**	1	**0.038**	ug/l	1.90	18.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	143321	1.45	174500	**82.1**	30	-	125	
45	Sc	1	1887745	0.30	2091000	**90.3**	30	-	125	
74	Ge	1	4093789	1.02	4536000	**90.3**	30	-	125	
103	Rh	1	5296447	0.67	6076000	**87.2**	30	-	125	
165	Ho	1	2410178	0.70	2580000	**93.4**	30	-	125	
175	Lu	1	2077565	0.96	2136000	**97.3**	30	-	125	
209	Bi	1	2337040	3.08	2616000	**89.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\148SMPL.D\148SMPL.D#
Date Acquired: Sep 27 2011 06:42 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-96152/22-A Vial Number: 4308
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.988**	ug/l	99.40	3.9	5000	6	P	
23	**Na**	1	**394.800**	ug/l	19,740.00	0.8	500000	45	A	
24	**Mg**	1	**399.900**	ug/l	19,995.00	2.5	500000	45	P	
27	**Al**	1	**81.550**	ug/l	4,077.50	2.8	500000	45	P	
31	**P**	1	**357.100**	ug/l	17,855.00	1.9	500000	45	P	
39	**K**	1	**397.600**	ug/l	19,880.00	2.5	500000	45	P	
44	**Ca**	1	**397.400**	ug/l	19,870.00	1.8	500000	45	P	
47	**Ti**	1	**95.990**	ug/l	4,799.50	1.8	5000	45	P	
51	**V**	1	**19.360**	ug/l	968.00	2.4	5000	45	P	
52	**Cr**	1	**7.728**	ug/l	386.40	3.5	5000	45	P	
55	**Mn**	1	**20.300**	ug/l	1,015.00	2.2	5000	45	P	
57	**Fe**	1	**423.400**	ug/l	21,170.00	1.2	500000	74	P	
59	**Co**	1	**19.670**	ug/l	983.50	2.1	5000	45	P	
60	**Ni**	1	**19.630**	ug/l	981.50	1.7	5000	74	P	
63	**Cu**	1	**10.150**	ug/l	507.50	2.0	5000	74	P	
66	**Zn**	1	**19.650**	ug/l	982.50	1.2	5000	74	P	
75	**As**	1	**79.880**	ug/l	3,994.00	1.4	5000	74	P	
78	**Se**	1	**78.100**	ug/l	3,905.00	1.2	5000	74	P	
88	**Sr**	1	**0.001**	ug/l	0.03	1825.1	5000	74	P	
95	**Mo**	1	**96.710**	ug/l	4,835.50	0.3	5000	103	P	
109	**Ag**	1	**11.850**	ug/l	592.50	1.3	200	103	P	
111	**Cd**	1	**1.981**	ug/l	99.05	6.1	5000	103	P	
118	**Sn**	1	**101.800**	ug/l	5,090.00	1.2	5000	103	P	
123	**Sb**	1	**58.370**	ug/l	2,918.50	0.1	5000	103	P	
135	**Ba**	1	**81.060**	ug/l	4,053.00	0.7	5000	103	P	
200	**Hg**	1	**0.943**	ug/l	47.14	3.7	50	209	P	
205	**Tl**	1	**81.530**	ug/l	4,076.50	3.7	5000	103	A	
208	**Pb**	1	**19.610**	ug/l	980.50	3.0	5000	209	P	
238	**U**	1	**-0.001**	ug/l	-0.05	80.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	136088	1.87	174500	**78.0**	30	-	125	
45	Sc	1	1847820	1.62	2091000	**88.4**	30	-	125	
74	Ge	1	4096690	0.88	4536000	**90.3**	30	-	125	
103	Rh	1	5581280	0.61	6076000	**91.9**	30	-	125	
165	Ho	1	2556456	0.73	2580000	**99.1**	30	-	125	
175	Lu	1	2130879	1.06	2136000	**99.8**	30	-	125	
209	Bi	1	2615369	2.34	2616000	**100.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\149SMPL.D\149SMPL.D#
Date Acquired: Sep 27 2011 06:46 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-96152/23-A Vial Number: 4309
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.015**	ug/l	100.75	4.8	5000	6	P	
23	**Na**	1	**398.400**	ug/l	19,920.00	1.2	500000	45	A	
24	**Mg**	1	**398.900**	ug/l	19,945.00	1.7	500000	45	P	
27	**Al**	1	**75.460**	ug/l	3,773.00	1.4	500000	45	P	
31	**P**	1	**353.200**	ug/l	17,660.00	1.7	500000	45	P	
39	**K**	1	**400.400**	ug/l	20,020.00	1.0	500000	45	P	
44	**Ca**	1	**399.000**	ug/l	19,950.00	1.3	500000	45	P	
47	**Ti**	1	**96.800**	ug/l	4,840.00	0.8	5000	45	P	
51	**V**	1	**19.440**	ug/l	972.00	0.8	5000	45	P	
52	**Cr**	1	**7.789**	ug/l	389.45	0.4	5000	45	P	
55	**Mn**	1	**20.290**	ug/l	1,014.50	1.7	5000	45	P	
57	**Fe**	1	**417.900**	ug/l	20,895.00	1.0	500000	74	P	
59	**Co**	1	**20.010**	ug/l	1,000.50	1.2	5000	45	P	
60	**Ni**	1	**19.760**	ug/l	988.00	1.6	5000	74	P	
63	**Cu**	1	**10.210**	ug/l	510.50	2.8	5000	74	P	
66	**Zn**	1	**19.870**	ug/l	993.50	1.9	5000	74	P	
75	**As**	1	**79.620**	ug/l	3,981.00	1.3	5000	74	P	
78	**Se**	1	**78.590**	ug/l	3,929.50	1.4	5000	74	P	
88	**Sr**	1	**-0.008**	ug/l	-0.42	83.1	5000	74	P	
95	**Mo**	1	**97.150**	ug/l	4,857.50	0.5	5000	103	P	
109	**Ag**	1	**11.960**	ug/l	598.00	0.4	200	103	P	
111	**Cd**	1	**2.003**	ug/l	100.15	5.6	5000	103	P	
118	**Sn**	1	**102.400**	ug/l	5,120.00	0.7	5000	103	P	
123	**Sb**	1	**59.090**	ug/l	2,954.50	0.7	5000	103	P	
135	**Ba**	1	**82.790**	ug/l	4,139.50	0.6	5000	103	P	
200	**Hg**	1	**0.937**	ug/l	46.87	2.1	50	209	P	
205	**Tl**	1	**83.090**	ug/l	4,154.50	5.8	5000	103	A	
208	**Pb**	1	**19.550**	ug/l	977.50	2.9	5000	209	P	
238	**U**	1	**-0.001**	ug/l	-0.03	48.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131316	0.43	174500	**75.3**	30	-	125	
45	Sc	1	1818779	1.32	2091000	**87.0**	30	-	125	
74	Ge	1	4061124	0.98	4536000	**89.5**	30	-	125	
103	Rh	1	5520753	0.79	6076000	**90.9**	30	-	125	
165	Ho	1	2538146	0.81	2580000	**98.4**	30	-	125	
175	Lu	1	2164443	0.38	2136000	**101.3**	30	-	125	
209	Bi	1	2630111	1.93	2616000	**100.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\150SMPL.D\150SMPL.D#
Date Acquired: Sep 27 2011 06:51 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.140**	ug/l	49.14	0.4	5000	6	P	
23	**Na**	1	**4681.000**	ug/l	4,681.00	0.9	500000	45	A	
24	**Mg**	1	**4664.000**	ug/l	4,664.00	1.4	500000	45	A	
27	**Al**	1	**454.600**	ug/l	454.60	1.2	500000	45	P	
31	**P**	1	**4486.000**	ug/l	4,486.00	1.6	500000	45	P	
39	**K**	1	**4768.000**	ug/l	4,768.00	2.4	500000	45	A	
44	**Ca**	1	**4793.000**	ug/l	4,793.00	1.1	500000	45	P	
47	**Ti**	1	**48.010**	ug/l	48.01	1.4	5000	45	P	
51	**V**	1	**46.830**	ug/l	46.83	1.2	5000	45	P	
52	**Cr**	1	**46.940**	ug/l	46.94	0.6	5000	45	P	
55	**Mn**	1	**49.090**	ug/l	49.09	0.6	5000	45	P	
57	**Fe**	1	**4828.000**	ug/l	4,828.00	0.4	500000	74	A	
59	**Co**	1	**47.290**	ug/l	47.29	0.3	5000	45	P	
60	**Ni**	1	**47.440**	ug/l	47.44	1.1	5000	74	P	
63	**Cu**	1	**48.010**	ug/l	48.01	0.9	5000	74	P	
66	**Zn**	1	**49.070**	ug/l	49.07	0.2	5000	74	P	
75	**As**	1	**47.790**	ug/l	47.79	0.9	5000	74	P	
78	**Se**	1	**47.530**	ug/l	47.53	1.5	5000	74	P	
88	**Sr**	1	**49.570**	ug/l	49.57	1.1	5000	74	P	
95	**Mo**	1	**47.600**	ug/l	47.60	1.4	5000	103	P	
109	**Ag**	1	**47.340**	ug/l	47.34	1.6	200	103	P	
111	**Cd**	1	**49.150**	ug/l	49.15	2.0	5000	103	P	
118	**Sn**	1	**49.820**	ug/l	49.82	1.8	5000	103	P	
123	**Sb**	1	**49.540**	ug/l	49.54	0.8	5000	103	P	
135	**Ba**	1	**50.690**	ug/l	50.69	1.3	5000	103	P	
200	**Hg**	1	**2.349**	ug/l	2.35	1.8	50	209	P	
205	**Tl**	1	**48.220**	ug/l	48.22	1.7	5000	103	P	
208	**Pb**	1	**47.700**	ug/l	47.70	1.8	5000	209	P	
238	**U**	1	**48.860**	ug/l	48.86	1.7	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133107	0.97	174500	**76.3**	30	-	125	
45	Sc	1	1845271	0.69	2091000	**88.2**	30	-	125	
74	Ge	1	4060970	0.80	4536000	**89.5**	30	-	125	
103	Rh	1	5444376	0.87	6076000	**89.6**	30	-	125	
165	Ho	1	2502231	1.20	2580000	**97.0**	30	-	125	
175	Lu	1	2123439	2.20	2136000	**99.4**	30	-	125	
209	Bi	1	2546354	1.26	2616000	**97.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\151SMPL.D\151SMPL.D#
Date Acquired: Sep 27 2011 06:55 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.004**	ug/l	0.00	108.5	5000	6	P	
23	**Na**	1	**-8.407**	ug/l	-8.41	13.5	500000	45	P	
24	**Mg**	1	**0.155**	ug/l	0.15	40.8	500000	45	P	
27	**Al**	1	**-0.389**	ug/l	-0.39	51.5	500000	45	P	
31	**P**	1	**-7.748**	ug/l	-7.75	13.2	500000	45	P	
39	**K**	1	**-4.493**	ug/l	-4.49	68.7	500000	45	P	
44	**Ca**	1	**-1.937**	ug/l	-1.94	17.4	500000	45	P	
47	**Ti**	1	**0.058**	ug/l	0.06	27.8	5000	45	P	
51	**V**	1	**-0.030**	ug/l	-0.03	42.1	5000	45	P	
52	**Cr**	1	**0.135**	ug/l	0.13	2.3	5000	45	P	
55	**Mn**	1	**0.015**	ug/l	0.01	46.8	5000	45	P	
57	**Fe**	1	**3.450**	ug/l	3.45	6.1	500000	74	P	
59	**Co**	1	**0.001**	ug/l	0.00	345.2	5000	45	P	
60	**Ni**	1	**0.004**	ug/l	0.00	196.0	5000	74	P	
63	**Cu**	1	**-0.014**	ug/l	-0.01	112.3	5000	74	P	
66	**Zn**	1	**-0.045**	ug/l	-0.05	40.3	5000	74	P	
75	**As**	1	**-0.033**	ug/l	-0.03	13.0	5000	74	P	
78	**Se**	1	**0.041**	ug/l	0.04	157.8	5000	74	P	
88	**Sr**	1	**-0.010**	ug/l	-0.01	27.1	5000	74	P	
95	**Mo**	1	**0.134**	ug/l	0.13	25.7	5000	103	P	
109	**Ag**	1	**-0.002**	ug/l	0.00	110.9	200	103	P	
111	**Cd**	1	**0.009**	ug/l	0.01	25.9	5000	103	P	
118	**Sn**	1	**0.457**	ug/l	0.46	22.2	5000	103	P	
123	**Sb**	1	**0.062**	ug/l	0.06	28.9	5000	103	P	
135	**Ba**	1	**0.001**	ug/l	0.00	1303.4	5000	103	P	
200	**Hg**	1	**0.015**	ug/l	0.02	20.1	50	209	P	
205	**Tl**	1	**0.529**	ug/l	0.53	10.0	5000	103	P	
208	**Pb**	1	**0.002**	ug/l	0.00	623.5	5000	209	P	
238	**U**	1	**0.010**	ug/l	0.01	13.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131371	1.09	174500	**75.3**	30	-	125	
45	Sc	1	1831320	2.62	2091000	**87.6**	30	-	125	
74	Ge	1	4047810	0.96	4536000	**89.2**	30	-	125	
103	Rh	1	5573823	0.79	6076000	**91.7**	30	-	125	
165	Ho	1	2504930	0.34	2580000	**97.1**	30	-	125	
175	Lu	1	2139045	0.43	2136000	**100.1**	30	-	125	
209	Bi	1	2616565	1.73	2616000	**100.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\152SMPL.D\152SMPL.D#
Date Acquired: Sep 27 2011 07:00 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-7-A Vial Number: 4401
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.020**	ug/l	0.10	47.0	5000	6	P	
23	**Na**	1	**342400.000**	ug/l	1,712,000.00	2.6	500000	45	A	
24	**Mg**	1	**29830.000**	ug/l	149,150.00	2.4	500000	45	A	
27	**Al**	1	**18.460**	ug/l	92.30	1.6	500000	45	P	
31	**P**	1	**199.300**	ug/l	996.50	4.2	500000	45	P	
39	**K**	1	**157700.000**	ug/l	788,500.00	2.2	500000	45	A	
44	**Ca**	1	**8993.000**	ug/l	44,965.00	2.1	500000	45	P	
47	**Ti**	1	**62.000**	ug/l	310.00	1.6	5000	45	P	
51	**V**	1	**8.877**	ug/l	44.39	2.7	5000	45	P	
52	**Cr**	1	**16.650**	ug/l	83.25	3.4	5000	45	P	
55	**Mn**	1	**8.638**	ug/l	43.19	3.0	5000	45	P	
57	**Fe**	1	**476.600**	ug/l	2,383.00	0.6	500000	74	P	
59	**Co**	1	**13.960**	ug/l	69.80	2.7	5000	45	P	
60	**Ni**	1	**34.380**	ug/l	171.90	0.4	5000	74	P	
63	**Cu**	1	**3.402**	ug/l	17.01	0.8	5000	74	P	
66	**Zn**	1	**9.055**	ug/l	45.28	3.5	5000	74	P	
75	**As**	1	**4.288**	ug/l	21.44	1.3	5000	74	P	
78	**Se**	1	**0.315**	ug/l	1.57	21.6	5000	74	P	
88	**Sr**	1	**22.920**	ug/l	114.60	0.7	5000	74	P	
95	**Mo**	1	**0.515**	ug/l	2.57	6.2	5000	103	P	
109	**Ag**	1	**0.008**	ug/l	0.04	52.5	200	103	P	
111	**Cd**	1	**0.206**	ug/l	1.03	10.7	5000	103	P	
118	**Sn**	1	**3.678**	ug/l	18.39	3.6	5000	103	P	
123	**Sb**	1	**1.346**	ug/l	6.73	2.5	5000	103	P	
135	**Ba**	1	**17.820**	ug/l	89.10	1.0	5000	103	P	
200	**Hg**	1	**0.046**	ug/l	0.23	20.9	50	209	P	
205	**Tl**	1	**0.240**	ug/l	1.20	15.4	5000	103	P	
208	**Pb**	1	**0.235**	ug/l	1.18	7.6	5000	209	P	
238	**U**	1	**0.569**	ug/l	2.85	2.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	123395	2.12	174500	**70.7**	30	-	125	
45	Sc	1	1715243	3.03	2091000	**82.0**	30	-	125	
74	Ge	1	3684003	0.17	4536000	**81.2**	30	-	125	
103	Rh	1	4713191	0.80	6076000	**77.6**	30	-	125	
165	Ho	1	2262288	1.48	2580000	**87.7**	30	-	125	
175	Lu	1	1906977	0.49	2136000	**89.3**	30	-	125	
209	Bi	1	2098943	0.15	2616000	**80.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\153SMPL.D\153SMPL.D#
Date Acquired: Sep 27 2011 07:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-8-A Vial Number: 4402
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.049**	ug/l	0.25	19.1	5000	6	P	
23	**Na**	1	**344700.000**	ug/l	1,723,500.00	0.9	500000	45	A	
24	**Mg**	1	**20330.000**	ug/l	101,650.00	1.8	500000	45	A	
27	**Al**	1	**22.700**	ug/l	113.50	4.8	500000	45	P	
31	**P**	1	**252.100**	ug/l	1,260.50	4.6	500000	45	P	
39	**K**	1	**157400.000**	ug/l	787,000.00	2.2	500000	45	A	
44	**Ca**	1	**18270.000**	ug/l	91,350.00	2.1	500000	45	A	
47	**Ti**	1	**49.470**	ug/l	247.35	2.3	5000	45	P	
51	**V**	1	**7.504**	ug/l	37.52	3.1	5000	45	P	
52	**Cr**	1	**16.580**	ug/l	82.90	1.0	5000	45	P	
55	**Mn**	1	**34.810**	ug/l	174.05	2.1	5000	45	P	
57	**Fe**	1	**450.000**	ug/l	2,250.00	0.5	500000	74	P	
59	**Co**	1	**6.855**	ug/l	34.28	2.4	5000	45	P	
60	**Ni**	1	**31.490**	ug/l	157.45	1.3	5000	74	P	
63	**Cu**	1	**2.281**	ug/l	11.41	2.7	5000	74	P	
66	**Zn**	1	**11.010**	ug/l	55.05	0.1	5000	74	P	
75	**As**	1	**4.049**	ug/l	20.25	2.8	5000	74	P	
78	**Se**	1	**0.389**	ug/l	1.94	27.3	5000	74	P	
88	**Sr**	1	**275.000**	ug/l	1,375.00	1.3	5000	74	A	
95	**Mo**	1	**0.415**	ug/l	2.07	0.8	5000	103	P	
109	**Ag**	1	**0.010**	ug/l	0.05	25.0	200	103	P	
111	**Cd**	1	**0.302**	ug/l	1.51	4.3	5000	103	P	
118	**Sn**	1	**3.401**	ug/l	17.01	1.2	5000	103	P	
123	**Sb**	1	**1.479**	ug/l	7.40	1.4	5000	103	P	
135	**Ba**	1	**64.690**	ug/l	323.45	0.5	5000	103	P	
200	**Hg**	1	**0.033**	ug/l	0.17	21.4	50	209	P	
205	**Tl**	1	**0.150**	ug/l	0.75	20.9	5000	103	P	
208	**Pb**	1	**0.200**	ug/l	1.00	3.8	5000	209	P	
238	**U**	1	**0.445**	ug/l	2.22	2.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	127154	1.04	174500	**72.9**	30	-	125	
45	Sc	1	1700202	1.82	2091000	**81.3**	30	-	125	
74	Ge	1	3717448	0.14	4536000	**82.0**	30	-	125	
103	Rh	1	4722429	1.06	6076000	**77.7**	30	-	125	
165	Ho	1	2265467	0.32	2580000	**87.8**	30	-	125	
175	Lu	1	1934777	0.93	2136000	**90.6**	30	-	125	
209	Bi	1	2115795	0.59	2616000	**80.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\154SMPL.D\154SMPL.D#
Date Acquired: Sep 27 2011 07:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-9-A Vial Number: 4403
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.057**	ug/l	0.28	55.1	5000	6	P	
23	**Na**	1	**345500.000**	ug/l	1,727,500.00	3.2	500000	45	A	
24	**Mg**	1	**27370.000**	ug/l	136,850.00	2.3	500000	45	A	
27	**Al**	1	**22.640**	ug/l	113.20	6.1	500000	45	P	
31	**P**	1	**244.800**	ug/l	1,224.00	6.3	500000	45	P	
39	**K**	1	**159000.000**	ug/l	795,000.00	1.8	500000	45	A	
44	**Ca**	1	**13110.000**	ug/l	65,550.00	2.1	500000	45	M	
47	**Ti**	1	**82.740**	ug/l	413.70	2.3	5000	45	P	
51	**V**	1	**10.560**	ug/l	52.80	2.9	5000	45	P	
52	**Cr**	1	**23.440**	ug/l	117.20	2.9	5000	45	P	
55	**Mn**	1	**8.704**	ug/l	43.52	2.0	5000	45	P	
57	**Fe**	1	**591.800**	ug/l	2,959.00	1.4	500000	74	P	
59	**Co**	1	**12.750**	ug/l	63.75	3.2	5000	45	P	
60	**Ni**	1	**36.180**	ug/l	180.90	0.8	5000	74	P	
63	**Cu**	1	**3.412**	ug/l	17.06	2.0	5000	74	P	
66	**Zn**	1	**10.480**	ug/l	52.40	0.7	5000	74	P	
75	**As**	1	**5.035**	ug/l	25.18	0.4	5000	74	P	
78	**Se**	1	**0.375**	ug/l	1.87	27.8	5000	74	P	
88	**Sr**	1	**43.770**	ug/l	218.85	0.7	5000	74	P	
95	**Mo**	1	**0.834**	ug/l	4.17	6.7	5000	103	P	
109	**Ag**	1	**0.010**	ug/l	0.05	13.8	200	103	P	
111	**Cd**	1	**0.244**	ug/l	1.22	10.7	5000	103	P	
118	**Sn**	1	**5.813**	ug/l	29.07	1.7	5000	103	P	
123	**Sb**	1	**1.677**	ug/l	8.39	1.0	5000	103	P	
135	**Ba**	1	**17.980**	ug/l	89.90	0.4	5000	103	P	
200	**Hg**	1	**0.055**	ug/l	0.27	3.0	50	209	P	
205	**Tl**	1	**0.111**	ug/l	0.55	18.1	5000	103	P	
208	**Pb**	1	**0.222**	ug/l	1.11	8.8	5000	209	P	
238	**U**	1	**0.771**	ug/l	3.86	0.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	128023	2.01	174500	**73.4**	30	-	125	
45	Sc	1	1756792	3.25	2091000	**84.0**	30	-	125	
74	Ge	1	3766821	1.25	4536000	**83.0**	30	-	125	
103	Rh	1	4797782	1.55	6076000	**79.0**	30	-	125	
165	Ho	1	2279865	1.89	2580000	**88.4**	30	-	125	
175	Lu	1	1913259	1.67	2136000	**89.6**	30	-	125	
209	Bi	1	2147379	2.19	2616000	**82.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\155SMPL.D\155SMPL.D#
Date Acquired: Sep 27 2011 07:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-10-A Vial Number: 4404
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.051**	ug/l	0.26	21.3	5000	6	P	
23	**Na**	1	**340700.000**	ug/l	1,703,500.00	1.6	500000	45	A	
24	**Mg**	1	**20210.000**	ug/l	101,050.00	1.1	500000	45	A	
27	**Al**	1	**25.570**	ug/l	127.85	2.2	500000	45	P	
31	**P**	1	**242.400**	ug/l	1,212.00	2.4	500000	45	P	
39	**K**	1	**156100.000**	ug/l	780,500.00	0.5	500000	45	A	
44	**Ca**	1	**18480.000**	ug/l	92,400.00	0.6	500000	45	A	
47	**Ti**	1	**63.670**	ug/l	318.35	1.7	5000	45	P	
51	**V**	1	**11.480**	ug/l	57.40	1.6	5000	45	P	
52	**Cr**	1	**21.200**	ug/l	106.00	2.0	5000	45	P	
55	**Mn**	1	**46.620**	ug/l	233.10	1.3	5000	45	P	
57	**Fe**	1	**537.200**	ug/l	2,686.00	0.2	500000	74	P	
59	**Co**	1	**7.897**	ug/l	39.49	1.8	5000	45	P	
60	**Ni**	1	**34.180**	ug/l	170.90	0.7	5000	74	P	
63	**Cu**	1	**2.247**	ug/l	11.24	1.7	5000	74	P	
66	**Zn**	1	**10.880**	ug/l	54.40	1.6	5000	74	P	
75	**As**	1	**5.131**	ug/l	25.66	0.6	5000	74	P	
78	**Se**	1	**0.436**	ug/l	2.18	9.8	5000	74	P	
88	**Sr**	1	**268.100**	ug/l	1,340.50	1.7	5000	74	A	
95	**Mo**	1	**0.551**	ug/l	2.76	3.1	5000	103	P	
109	**Ag**	1	**0.010**	ug/l	0.05	28.5	200	103	P	
111	**Cd**	1	**0.291**	ug/l	1.46	3.8	5000	103	P	
118	**Sn**	1	**4.036**	ug/l	20.18	2.5	5000	103	P	
123	**Sb**	1	**1.779**	ug/l	8.90	0.6	5000	103	P	
135	**Ba**	1	**83.720**	ug/l	418.60	1.1	5000	103	P	
200	**Hg**	1	**0.058**	ug/l	0.29	11.6	50	209	P	
205	**Tl**	1	**0.101**	ug/l	0.50	10.9	5000	103	P	
208	**Pb**	1	**0.182**	ug/l	0.91	8.3	5000	209	P	
238	**U**	1	**0.586**	ug/l	2.93	3.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	129897	1.66	174500	**74.4**	30 - 125	
45	Sc	1	1758855	2.35	2091000	**84.1**	30 - 125	
74	Ge	1	3799624	1.58	4536000	**83.8**	30 - 125	
103	Rh	1	4783342	1.40	6076000	**78.7**	30 - 125	
165	Ho	1	2286556	1.29	2580000	**88.6**	30 - 125	
175	Lu	1	1934592	1.07	2136000	**90.6**	30 - 125	
209	Bi	1	2139476	1.02	2616000	**81.8**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\156SMPL.D\156SMPL.D#
Date Acquired: Sep 27 2011 07:17 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-11-A Vial Number: 4405
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.044**	ug/l	0.22	23.5	5000	6	P	
23	**Na**	1	**355200.000**	ug/l	1,776,000.00	1.9	500000	45	A	
24	**Mg**	1	**27980.000**	ug/l	139,900.00	1.7	500000	45	A	
27	**Al**	1	**19.320**	ug/l	96.60	4.4	500000	45	P	
31	**P**	1	**235.300**	ug/l	1,176.50	3.1	500000	45	P	
39	**K**	1	**160700.000**	ug/l	803,500.00	1.8	500000	45	A	
44	**Ca**	1	**13270.000**	ug/l	66,350.00	2.4	500000	45	P	
47	**Ti**	1	**59.040**	ug/l	295.20	1.5	5000	45	P	
51	**V**	1	**9.044**	ug/l	45.22	3.2	5000	45	P	
52	**Cr**	1	**15.710**	ug/l	78.55	2.6	5000	45	P	
55	**Mn**	1	**12.940**	ug/l	64.70	1.8	5000	45	P	
57	**Fe**	1	**449.800**	ug/l	2,249.00	0.9	500000	74	P	
59	**Co**	1	**14.090**	ug/l	70.45	1.5	5000	45	P	
60	**Ni**	1	**36.600**	ug/l	183.00	1.3	5000	74	P	
63	**Cu**	1	**3.155**	ug/l	15.78	1.7	5000	74	P	
66	**Zn**	1	**9.474**	ug/l	47.37	2.4	5000	74	P	
75	**As**	1	**4.524**	ug/l	22.62	1.3	5000	74	P	
78	**Se**	1	**0.288**	ug/l	1.44	16.9	5000	74	P	
88	**Sr**	1	**44.600**	ug/l	223.00	1.4	5000	74	P	
95	**Mo**	1	**0.513**	ug/l	2.56	5.0	5000	103	P	
109	**Ag**	1	**0.007**	ug/l	0.03	19.2	200	103	P	
111	**Cd**	1	**0.177**	ug/l	0.88	20.3	5000	103	P	
118	**Sn**	1	**2.817**	ug/l	14.09	0.9	5000	103	P	
123	**Sb**	1	**1.306**	ug/l	6.53	3.2	5000	103	P	
135	**Ba**	1	**18.040**	ug/l	90.20	1.9	5000	103	P	
200	**Hg**	1	**0.047**	ug/l	0.24	6.9	50	209	P	
205	**Tl**	1	**0.075**	ug/l	0.38	19.5	5000	103	P	
208	**Pb**	1	**0.189**	ug/l	0.95	1.6	5000	209	P	
238	**U**	1	**0.535**	ug/l	2.68	1.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130037	0.48	174500	**74.5**	30	-	125	
45	Sc	1	1736614	2.11	2091000	**83.1**	30	-	125	
74	Ge	1	3754945	1.26	4536000	**82.8**	30	-	125	
103	Rh	1	4778229	0.49	6076000	**78.6**	30	-	125	
165	Ho	1	2280218	1.39	2580000	**88.4**	30	-	125	
175	Lu	1	1926389	0.86	2136000	**90.2**	30	-	125	
209	Bi	1	2132006	0.87	2616000	**81.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\157SMPL.D\157SMPL.D#
Date Acquired: Sep 27 2011 07:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-12-A Vial Number: 4406
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.047**	ug/l	0.24	17.6	5000	6	P	
23	**Na**	1	**355100.000**	ug/l	1,775,500.00	1.9	500000	45	A	
24	**Mg**	1	**21000.000**	ug/l	105,000.00	1.1	500000	45	A	
27	**Al**	1	**23.770**	ug/l	118.85	2.4	500000	45	P	
31	**P**	1	**232.600**	ug/l	1,163.00	3.3	500000	45	P	
39	**K**	1	**163100.000**	ug/l	815,500.00	2.3	500000	45	A	
44	**Ca**	1	**18900.000**	ug/l	94,500.00	0.9	500000	45	A	
47	**Ti**	1	**51.260**	ug/l	256.30	2.1	5000	45	P	
51	**V**	1	**10.430**	ug/l	52.15	3.4	5000	45	P	
52	**Cr**	1	**19.050**	ug/l	95.25	3.2	5000	45	P	
55	**Mn**	1	**67.480**	ug/l	337.40	2.6	5000	45	P	
57	**Fe**	1	**476.900**	ug/l	2,384.50	1.5	500000	74	P	
59	**Co**	1	**8.503**	ug/l	42.52	2.1	5000	45	P	
60	**Ni**	1	**36.760**	ug/l	183.80	0.6	5000	74	P	
63	**Cu**	1	**2.264**	ug/l	11.32	2.7	5000	74	P	
66	**Zn**	1	**10.020**	ug/l	50.10	2.0	5000	74	P	
75	**As**	1	**5.168**	ug/l	25.84	3.8	5000	74	P	
78	**Se**	1	**0.367**	ug/l	1.84	28.3	5000	74	P	
88	**Sr**	1	**279.700**	ug/l	1,398.50	1.0	5000	74	A	
95	**Mo**	1	**0.493**	ug/l	2.46	3.6	5000	103	P	
109	**Ag**	1	**0.009**	ug/l	0.04	41.6	200	103	P	
111	**Cd**	1	**0.274**	ug/l	1.37	5.7	5000	103	P	
118	**Sn**	1	**2.728**	ug/l	13.64	4.3	5000	103	P	
123	**Sb**	1	**1.780**	ug/l	8.90	2.2	5000	103	P	
135	**Ba**	1	**90.730**	ug/l	453.65	1.8	5000	103	P	
200	**Hg**	1	**0.050**	ug/l	0.25	10.8	50	209	P	
205	**Tl**	1	**0.081**	ug/l	0.41	16.4	5000	103	P	
208	**Pb**	1	**0.167**	ug/l	0.83	10.0	5000	209	P	
238	**U**	1	**0.477**	ug/l	2.38	4.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130179	2.08	174500	**74.6**	30	-	125	
45	Sc	1	1772753	2.53	2091000	**84.8**	30	-	125	
74	Ge	1	3797677	1.21	4536000	**83.7**	30	-	125	
103	Rh	1	4862789	0.52	6076000	**80.0**	30	-	125	
165	Ho	1	2293201	1.89	2580000	**88.9**	30	-	125	
175	Lu	1	1928425	1.08	2136000	**90.3**	30	-	125	
209	Bi	1	2156855	0.26	2616000	**82.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\158SMPL.D\158SMPL.D#
Date Acquired: Sep 27 2011 07:26 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-13-A Vial Number: 4407
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.045**	ug/l	0.23	29.7	5000	6	P	
23	**Na**	1	**345100.000**	ug/l	1,725,500.00	1.7	500000	45	A	
24	**Mg**	1	**25480.000**	ug/l	127,400.00	0.5	500000	45	A	
27	**Al**	1	**21.760**	ug/l	108.80	2.0	500000	45	P	
31	**P**	1	**223.000**	ug/l	1,115.00	4.0	500000	45	P	
39	**K**	1	**156700.000**	ug/l	783,500.00	1.4	500000	45	A	
44	**Ca**	1	**16660.000**	ug/l	83,300.00	1.3	500000	45	A	
47	**Ti**	1	**66.990**	ug/l	334.95	0.7	5000	45	P	
51	**V**	1	**12.160**	ug/l	60.80	1.6	5000	45	P	
52	**Cr**	1	**19.590**	ug/l	97.95	2.4	5000	45	P	
55	**Mn**	1	**11.400**	ug/l	57.00	1.1	5000	45	P	
57	**Fe**	1	**539.500**	ug/l	2,697.50	1.4	500000	74	P	
59	**Co**	1	**11.400**	ug/l	57.00	1.4	5000	45	P	
60	**Ni**	1	**36.060**	ug/l	180.30	0.3	5000	74	P	
63	**Cu**	1	**2.857**	ug/l	14.29	1.4	5000	74	P	
66	**Zn**	1	**11.810**	ug/l	59.05	4.3	5000	74	P	
75	**As**	1	**5.765**	ug/l	28.83	1.8	5000	74	P	
78	**Se**	1	**0.343**	ug/l	1.71	33.3	5000	74	P	
88	**Sr**	1	**76.970**	ug/l	384.85	1.6	5000	74	P	
95	**Mo**	1	**0.795**	ug/l	3.98	2.0	5000	103	P	
109	**Ag**	1	**0.006**	ug/l	0.03	9.3	200	103	P	
111	**Cd**	1	**0.247**	ug/l	1.24	10.9	5000	103	P	
118	**Sn**	1	**3.666**	ug/l	18.33	1.4	5000	103	P	
123	**Sb**	1	**1.588**	ug/l	7.94	3.5	5000	103	P	
135	**Ba**	1	**18.710**	ug/l	93.55	1.1	5000	103	P	
200	**Hg**	1	**0.057**	ug/l	0.29	2.3	50	209	P	
205	**Tl**	1	**0.061**	ug/l	0.31	13.2	5000	103	P	
208	**Pb**	1	**0.214**	ug/l	1.07	5.4	5000	209	P	
238	**U**	1	**0.654**	ug/l	3.27	2.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131871	1.06	174500	**75.6**	30	-	125	
45	Sc	1	1774018	1.55	2091000	**84.8**	30	-	125	
74	Ge	1	3841234	1.47	4536000	**84.7**	30	-	125	
103	Rh	1	4797020	1.57	6076000	**79.0**	30	-	125	
165	Ho	1	2296757	1.19	2580000	**89.0**	30	-	125	
175	Lu	1	1940719	1.54	2136000	**90.9**	30	-	125	
209	Bi	1	2139830	2.02	2616000	**81.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\159SMPL.D\159SMPL.D#
Date Acquired: Sep 27 2011 07:30 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-14-A Vial Number: 4408
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.058**	ug/l	0.29	15.9	5000	6	P	
23	**Na**	1	**361700.000**	ug/l	1,808,500.00	2.1	500000	45	A	
24	**Mg**	1	**20820.000**	ug/l	104,100.00	1.5	500000	45	A	
27	**Al**	1	**29.050**	ug/l	145.25	2.7	500000	45	P	
31	**P**	1	**413.500**	ug/l	2,067.50	1.6	500000	45	P	
39	**K**	1	**163500.000**	ug/l	817,500.00	1.1	500000	45	A	
44	**Ca**	1	**19120.000**	ug/l	95,600.00	1.7	500000	45	A	
47	**Ti**	1	**85.270**	ug/l	426.35	2.6	5000	45	P	
51	**V**	1	**15.400**	ug/l	77.00	1.4	5000	45	P	
52	**Cr**	1	**28.260**	ug/l	141.30	1.1	5000	45	P	
55	**Mn**	1	**93.630**	ug/l	468.15	1.9	5000	45	P	
57	**Fe**	1	**670.800**	ug/l	3,354.00	2.9	500000	74	P	
59	**Co**	1	**9.619**	ug/l	48.10	2.0	5000	45	P	
60	**Ni**	1	**38.780**	ug/l	193.90	2.1	5000	74	P	
63	**Cu**	1	**2.584**	ug/l	12.92	1.0	5000	74	P	
66	**Zn**	1	**11.600**	ug/l	58.00	3.4	5000	74	P	
75	**As**	1	**9.367**	ug/l	46.84	1.1	5000	74	P	
78	**Se**	1	**0.457**	ug/l	2.28	2.1	5000	74	P	
88	**Sr**	1	**283.900**	ug/l	1,419.50	1.4	5000	74	A	
95	**Mo**	1	**0.790**	ug/l	3.95	5.2	5000	103	P	
109	**Ag**	1	**0.008**	ug/l	0.04	27.8	200	103	P	
111	**Cd**	1	**0.302**	ug/l	1.51	14.2	5000	103	P	
118	**Sn**	1	**5.756**	ug/l	28.78	1.0	5000	103	P	
123	**Sb**	1	**2.287**	ug/l	11.44	1.5	5000	103	P	
135	**Ba**	1	**98.570**	ug/l	492.85	0.7	5000	103	P	
200	**Hg**	1	**0.085**	ug/l	0.43	7.4	50	209	P	
205	**Tl**	1	**0.062**	ug/l	0.31	16.0	5000	103	P	
208	**Pb**	1	**0.223**	ug/l	1.11	2.0	5000	209	P	
238	**U**	1	**0.789**	ug/l	3.95	4.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	127504	1.05	174500	**73.1**	30	-	125	
45	Sc	1	1747850	1.60	2091000	**83.6**	30	-	125	
74	Ge	1	3766701	1.65	4536000	**83.0**	30	-	125	
103	Rh	1	4808805	0.33	6076000	**79.1**	30	-	125	
165	Ho	1	2290613	1.30	2580000	**88.8**	30	-	125	
175	Lu	1	1915372	1.16	2136000	**89.7**	30	-	125	
209	Bi	1	2130063	1.22	2616000	**81.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\160SMPL.D\160SMPL.D#
Date Acquired: Sep 27 2011 07:34 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-15-A Vial Number: 4409
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.052**	ug/l	0.26	12.6	5000	6	P	
23	**Na**	1	**350000.000**	ug/l	1,750,000.00	1.3	500000	45	A	
24	**Mg**	1	**24790.000**	ug/l	123,950.00	1.7	500000	45	A	
27	**Al**	1	**22.940**	ug/l	114.70	2.5	500000	45	P	
31	**P**	1	**250.600**	ug/l	1,253.00	1.5	500000	45	P	
39	**K**	1	**158000.000**	ug/l	790,000.00	1.6	500000	45	A	
44	**Ca**	1	**18020.000**	ug/l	90,100.00	1.7	500000	45	A	
47	**Ti**	1	**77.150**	ug/l	385.75	2.3	5000	45	P	
51	**V**	1	**12.870**	ug/l	64.35	2.0	5000	45	P	
52	**Cr**	1	**22.570**	ug/l	112.85	2.4	5000	45	P	
55	**Mn**	1	**12.590**	ug/l	62.95	1.9	5000	45	P	
57	**Fe**	1	**589.100**	ug/l	2,945.50	0.7	500000	74	P	
59	**Co**	1	**11.640**	ug/l	58.20	1.6	5000	45	P	
60	**Ni**	1	**37.050**	ug/l	185.25	2.0	5000	74	P	
63	**Cu**	1	**3.073**	ug/l	15.37	2.4	5000	74	P	
66	**Zn**	1	**11.990**	ug/l	59.95	2.0	5000	74	P	
75	**As**	1	**6.723**	ug/l	33.62	1.5	5000	74	P	
78	**Se**	1	**0.428**	ug/l	2.14	10.5	5000	74	P	
88	**Sr**	1	**102.500**	ug/l	512.50	0.6	5000	74	P	
95	**Mo**	1	**0.915**	ug/l	4.57	5.8	5000	103	P	
109	**Ag**	1	**0.013**	ug/l	0.06	27.7	200	103	P	
111	**Cd**	1	**0.237**	ug/l	1.19	11.9	5000	103	P	
118	**Sn**	1	**4.617**	ug/l	23.09	1.7	5000	103	P	
123	**Sb**	1	**1.752**	ug/l	8.76	2.7	5000	103	P	
135	**Ba**	1	**18.910**	ug/l	94.55	1.6	5000	103	P	
200	**Hg**	1	**0.071**	ug/l	0.35	4.9	50	209	P	
205	**Tl**	1	**0.049**	ug/l	0.24	13.0	5000	103	P	
208	**Pb**	1	**0.219**	ug/l	1.10	12.5	5000	209	P	
238	**U**	1	**0.734**	ug/l	3.67	1.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133209	0.65	174500	**76.3**	30	-	125	
45	Sc	1	1759846	2.90	2091000	**84.2**	30	-	125	
74	Ge	1	3813261	1.36	4536000	**84.1**	30	-	125	
103	Rh	1	4814558	1.48	6076000	**79.2**	30	-	125	
165	Ho	1	2294856	0.87	2580000	**88.9**	30	-	125	
175	Lu	1	1944153	1.60	2136000	**91.0**	30	-	125	
209	Bi	1	2140748	1.27	2616000	**81.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\161SMPL.D\161SMPL.D#
Date Acquired: Sep 27 2011 07:39 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-16-A Vial Number: 4410
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.039**	ug/l	0.19	50.5	5000	6	P	
23	**Na**	1	**368600.000**	ug/l	1,843,000.00	2.9	500000	45	A	
24	**Mg**	1	**21310.000**	ug/l	106,550.00	3.6	500000	45	A	
27	**Al**	1	**29.630**	ug/l	148.15	3.2	500000	45	P	
31	**P**	1	**548.400**	ug/l	2,742.00	5.5	500000	45	P	
39	**K**	1	**169400.000**	ug/l	847,000.00	2.4	500000	45	A	
44	**Ca**	1	**19880.000**	ug/l	99,400.00	1.9	500000	45	A	
47	**Ti**	1	**83.720**	ug/l	418.60	2.8	5000	45	P	
51	**V**	1	**16.300**	ug/l	81.50	3.4	5000	45	P	
52	**Cr**	1	**28.100**	ug/l	140.50	3.0	5000	45	P	
55	**Mn**	1	**111.200**	ug/l	556.00	2.8	5000	45	P	
57	**Fe**	1	**662.400**	ug/l	3,312.00	2.7	500000	74	P	
59	**Co**	1	**9.839**	ug/l	49.20	3.0	5000	45	P	
60	**Ni**	1	**40.110**	ug/l	200.55	3.4	5000	74	P	
63	**Cu**	1	**2.538**	ug/l	12.69	4.0	5000	74	P	
66	**Zn**	1	**11.950**	ug/l	59.75	3.9	5000	74	P	
75	**As**	1	**12.650**	ug/l	63.25	2.1	5000	74	P	
78	**Se**	1	**0.458**	ug/l	2.29	14.7	5000	74	P	
88	**Sr**	1	**291.300**	ug/l	1,456.50	1.0	5000	74	A	
95	**Mo**	1	**0.828**	ug/l	4.14	3.7	5000	103	P	
109	**Ag**	1	**0.008**	ug/l	0.04	57.1	200	103	P	
111	**Cd**	1	**0.316**	ug/l	1.58	14.7	5000	103	P	
118	**Sn**	1	**5.519**	ug/l	27.60	3.2	5000	103	P	
123	**Sb**	1	**2.358**	ug/l	11.79	2.0	5000	103	P	
135	**Ba**	1	**103.200**	ug/l	516.00	2.2	5000	103	P	
200	**Hg**	1	**0.095**	ug/l	0.47	13.0	50	209	P	
205	**Tl**	1	**0.052**	ug/l	0.26	14.0	5000	103	P	
208	**Pb**	1	**0.188**	ug/l	0.94	9.6	5000	209	P	
238	**U**	1	**0.767**	ug/l	3.83	3.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130675	0.96	174500	**74.9**	30	-	125	
45	Sc	1	1758078	2.17	2091000	**84.1**	30	-	125	
74	Ge	1	3805625	1.68	4536000	**83.9**	30	-	125	
103	Rh	1	4797320	1.18	6076000	**79.0**	30	-	125	
165	Ho	1	2288651	1.13	2580000	**88.7**	30	-	125	
175	Lu	1	1940614	0.86	2136000	**90.9**	30	-	125	
209	Bi	1	2120670	0.95	2616000	**81.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\162SMPL.D\162SMPL.D#
Date Acquired: Sep 27 2011 07:43 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**47.910**	ug/l	47.91	2.2	5000	6	P	
23	**Na**	1	**4780.000**	ug/l	4,780.00	1.6	500000	45	A	
24	**Mg**	1	**4785.000**	ug/l	4,785.00	1.0	500000	45	A	
27	**Al**	1	**466.500**	ug/l	466.50	1.6	500000	45	P	
31	**P**	1	**4563.000**	ug/l	4,563.00	1.0	500000	45	P	
39	**K**	1	**4803.000**	ug/l	4,803.00	1.3	500000	45	A	
44	**Ca**	1	**4788.000**	ug/l	4,788.00	1.4	500000	45	P	
47	**Ti**	1	**48.560**	ug/l	48.56	1.4	5000	45	P	
51	**V**	1	**47.060**	ug/l	47.06	1.0	5000	45	P	
52	**Cr**	1	**47.400**	ug/l	47.40	1.0	5000	45	P	
55	**Mn**	1	**48.740**	ug/l	48.74	0.7	5000	45	P	
57	**Fe**	1	**4821.000**	ug/l	4,821.00	2.1	500000	74	A	
59	**Co**	1	**47.400**	ug/l	47.40	1.0	5000	45	P	
60	**Ni**	1	**47.790**	ug/l	47.79	1.7	5000	74	P	
63	**Cu**	1	**48.620**	ug/l	48.62	1.2	5000	74	P	
66	**Zn**	1	**48.650**	ug/l	48.65	0.4	5000	74	P	
75	**As**	1	**47.760**	ug/l	47.76	1.2	5000	74	P	
78	**Se**	1	**47.140**	ug/l	47.14	0.6	5000	74	P	
88	**Sr**	1	**48.910**	ug/l	48.91	1.4	5000	74	P	
95	**Mo**	1	**47.690**	ug/l	47.69	1.5	5000	103	P	
109	**Ag**	1	**47.650**	ug/l	47.65	1.4	200	103	P	
111	**Cd**	1	**48.880**	ug/l	48.88	0.9	5000	103	P	
118	**Sn**	1	**49.170**	ug/l	49.17	1.9	5000	103	P	
123	**Sb**	1	**49.220**	ug/l	49.22	1.0	5000	103	P	
135	**Ba**	1	**50.860**	ug/l	50.86	0.9	5000	103	P	
200	**Hg**	1	**2.299**	ug/l	2.30	2.0	50	209	P	
205	**Tl**	1	**47.060**	ug/l	47.06	2.1	5000	103	P	
208	**Pb**	1	**47.780**	ug/l	47.78	3.1	5000	209	P	
238	**U**	1	**48.350**	ug/l	48.35	2.5	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	145861	0.88	174500	**83.6**	30	-	125	
45	Sc	1	1905973	1.37	2091000	**91.2**	30	-	125	
74	Ge	1	4190354	0.60	4536000	**92.4**	30	-	125	
103	Rh	1	5557255	0.47	6076000	**91.5**	30	-	125	
165	Ho	1	2520092	0.54	2580000	**97.7**	30	-	125	
175	Lu	1	2131827	0.48	2136000	**99.8**	30	-	125	
209	Bi	1	2548560	1.96	2616000	**97.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\163SMPL.D\163SMPL.D#
Date Acquired: Sep 27 2011 07:47 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.003**	ug/l	0.00	94.5	5000	6	P	
23	Na	1	**4.375**	ug/l	4.38	10.5	500000	45	P	
24	Mg	1	**0.379**	ug/l	0.38	9.7	500000	45	P	
27	Al	1	**-0.413**	ug/l	-0.41	50.8	500000	45	P	
31	P	1	**-6.900**	ug/l	-6.90	16.9	500000	45	P	
39	K	1	**-1.866**	ug/l	-1.87	30.5	500000	45	P	
44	Ca	1	**-1.200**	ug/l	-1.20	22.2	500000	45	P	
47	Ti	1	**0.040**	ug/l	0.04	23.7	5000	45	P	
51	V	1	**-0.024**	ug/l	-0.02	39.2	5000	45	P	
52	Cr	1	**0.137**	ug/l	0.14	12.9	5000	45	P	
55	Mn	1	**0.006**	ug/l	0.01	185.0	5000	45	P	
57	Fe	1	**3.110**	ug/l	3.11	3.1	500000	74	P	
59	Co	1	**0.009**	ug/l	0.01	25.6	5000	45	P	
60	Ni	1	**0.004**	ug/l	0.00	75.8	5000	74	P	
63	Cu	1	**0.077**	ug/l	0.08	12.4	5000	74	P	
66	Zn	1	**-0.035**	ug/l	-0.03	58.5	5000	74	P	
75	As	1	**0.018**	ug/l	0.02	65.6	5000	74	P	
78	Se	1	**0.133**	ug/l	0.13	24.5	5000	74	P	
88	Sr	1	**-0.001**	ug/l	0.00	644.5	5000	74	P	
95	Mo	1	**0.074**	ug/l	0.07	15.1	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	1755.9	200	103	P	
111	Cd	1	**-0.004**	ug/l	0.00	67.1	5000	103	P	
118	Sn	1	**0.191**	ug/l	0.19	17.3	5000	103	P	
123	Sb	1	**0.037**	ug/l	0.04	37.0	5000	103	P	
135	Ba	1	**0.002**	ug/l	0.00	332.7	5000	103	P	
200	Hg	1	**0.005**	ug/l	0.00	12.5	50	209	P	
205	Tl	1	**0.287**	ug/l	0.29	12.5	5000	103	P	
208	Pb	1	**-0.005**	ug/l	-0.01	136.1	5000	209	P	
238	U	1	**0.015**	ug/l	0.01	3.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	145633	0.98	174500	**83.5**	30	-	125	
45	Sc	1	1873581	0.51	2091000	**89.6**	30	-	125	
74	Ge	1	4145909	0.74	4536000	**91.4**	30	-	125	
103	Rh	1	5691476	0.60	6076000	**93.7**	30	-	125	
165	Ho	1	2555275	0.57	2580000	**99.0**	30	-	125	
175	Lu	1	2148431	0.65	2136000	**100.6**	30	-	125	
209	Bi	1	2609320	1.08	2616000	**99.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\164SMPL.D\164SMPL.D#
Date Acquired: Sep 27 2011 07:52 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-17-A Vial Number: 4501
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.051**	ug/l	0.25	35.7	5000	6	P	
23	**Na**	1	**342200.000**	ug/l	1,711,000.00	0.4	500000	45	A	
24	**Mg**	1	**23910.000**	ug/l	119,550.00	1.6	500000	45	A	
27	**Al**	1	**21.010**	ug/l	105.05	2.5	500000	45	P	
31	**P**	1	**255.500**	ug/l	1,277.50	1.2	500000	45	P	
39	**K**	1	**155500.000**	ug/l	777,500.00	1.1	500000	45	A	
44	**Ca**	1	**18210.000**	ug/l	91,050.00	2.0	500000	45	A	
47	**Ti**	1	**60.530**	ug/l	302.65	1.0	5000	45	P	
51	**V**	1	**13.200**	ug/l	66.00	1.5	5000	45	P	
52	**Cr**	1	**18.270**	ug/l	91.35	0.8	5000	45	P	
55	**Mn**	1	**12.630**	ug/l	63.15	0.9	5000	45	P	
57	**Fe**	1	**516.600**	ug/l	2,583.00	1.2	500000	74	P	
59	**Co**	1	**10.530**	ug/l	52.65	1.5	5000	45	P	
60	**Ni**	1	**36.140**	ug/l	180.70	1.5	5000	74	P	
63	**Cu**	1	**2.549**	ug/l	12.75	2.3	5000	74	P	
66	**Zn**	1	**11.980**	ug/l	59.90	0.7	5000	74	P	
75	**As**	1	**7.550**	ug/l	37.75	0.3	5000	74	P	
78	**Se**	1	**0.399**	ug/l	1.99	15.1	5000	74	P	
88	**Sr**	1	**120.000**	ug/l	600.00	1.5	5000	74	A	
95	**Mo**	1	**0.708**	ug/l	3.54	4.8	5000	103	P	
109	**Ag**	1	**0.010**	ug/l	0.05	54.3	200	103	P	
111	**Cd**	1	**0.196**	ug/l	0.98	22.7	5000	103	P	
118	**Sn**	1	**2.637**	ug/l	13.19	1.2	5000	103	P	
123	**Sb**	1	**1.542**	ug/l	7.71	4.7	5000	103	P	
135	**Ba**	1	**18.600**	ug/l	93.00	2.4	5000	103	P	
200	**Hg**	1	**0.060**	ug/l	0.30	18.1	50	209	P	
205	**Tl**	1	**0.114**	ug/l	0.57	13.8	5000	103	P	
208	**Pb**	1	**0.189**	ug/l	0.94	7.6	5000	209	P	
238	**U**	1	**0.605**	ug/l	3.03	2.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	128177	1.09	174500	**73.5**	30	-	125	
45	Sc	1	1746869	0.91	2091000	**83.5**	30	-	125	
74	Ge	1	3785275	0.41	4536000	**83.4**	30	-	125	
103	Rh	1	4817452	1.31	6076000	**79.3**	30	-	125	
165	Ho	1	2292972	0.75	2580000	**88.9**	30	-	125	
175	Lu	1	1938504	0.78	2136000	**90.8**	30	-	125	
209	Bi	1	2141122	0.33	2616000	**81.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\165SMPL.D\165SMPL.D#
Date Acquired: Sep 27 2011 07:56 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-18-A Vial Number: 4502
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.058**	ug/l	0.29	40.8	5000	6	P	
23	**Na**	1	**353500.000**	ug/l	1,767,500.00	1.0	500000	45	A	
24	**Mg**	1	**20440.000**	ug/l	102,200.00	0.9	500000	45	A	
27	**Al**	1	**26.820**	ug/l	134.10	1.8	500000	45	P	
31	**P**	1	**664.600**	ug/l	3,323.00	1.2	500000	45	P	
39	**K**	1	**160400.000**	ug/l	802,000.00	0.9	500000	45	A	
44	**Ca**	1	**19150.000**	ug/l	95,750.00	0.7	500000	45	A	
47	**Ti**	1	**59.990**	ug/l	299.95	0.6	5000	45	P	
51	**V**	1	**16.090**	ug/l	80.45	1.0	5000	45	P	
52	**Cr**	1	**21.880**	ug/l	109.40	2.4	5000	45	P	
55	**Mn**	1	**116.500**	ug/l	582.50	1.3	5000	45	P	
57	**Fe**	1	**541.400**	ug/l	2,707.00	1.9	500000	74	P	
59	**Co**	1	**8.884**	ug/l	44.42	2.1	5000	45	P	
60	**Ni**	1	**37.170**	ug/l	185.85	2.1	5000	74	P	
63	**Cu**	1	**4.689**	ug/l	23.45	1.3	5000	74	P	
66	**Zn**	1	**13.140**	ug/l	65.70	0.4	5000	74	P	
75	**As**	1	**15.830**	ug/l	79.15	2.0	5000	74	P	
78	**Se**	1	**0.413**	ug/l	2.07	24.5	5000	74	P	
88	**Sr**	1	**287.600**	ug/l	1,438.00	1.6	5000	74	A	
95	**Mo**	1	**0.658**	ug/l	3.29	8.9	5000	103	P	
109	**Ag**	1	**0.012**	ug/l	0.06	6.3	200	103	P	
111	**Cd**	1	**0.320**	ug/l	1.60	15.2	5000	103	P	
118	**Sn**	1	**2.775**	ug/l	13.88	1.8	5000	103	P	
123	**Sb**	1	**2.180**	ug/l	10.90	2.5	5000	103	P	
135	**Ba**	1	**100.000**	ug/l	500.00	0.9	5000	103	P	
200	**Hg**	1	**0.084**	ug/l	0.42	10.4	50	209	P	
205	**Tl**	1	**0.086**	ug/l	0.43	16.9	5000	103	P	
208	**Pb**	1	**0.186**	ug/l	0.93	3.4	5000	209	P	
238	**U**	1	**0.590**	ug/l	2.95	1.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	128138	1.78	174500	**73.4**	30 - 125	
45	Sc	1	1758047	1.61	2091000	**84.1**	30 - 125	
74	Ge	1	3759614	1.45	4536000	**82.9**	30 - 125	
103	Rh	1	4782726	0.55	6076000	**78.7**	30 - 125	
165	Ho	1	2253080	0.88	2580000	**87.3**	30 - 125	
175	Lu	1	1929722	0.12	2136000	**90.3**	30 - 125	
209	Bi	1	2123015	0.55	2616000	**81.2**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\166SMPL.D\166SMPL.D#
Date Acquired: Sep 27 2011 08:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-19-A Vial Number: 4503
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.053**	ug/l	0.27	33.8	5000	6	P	
23	**Na**	1	**351100.000**	ug/l	1,755,500.00	1.0	500000	45	A	
24	**Mg**	1	**25250.000**	ug/l	126,250.00	1.0	500000	45	A	
27	**Al**	1	**23.400**	ug/l	117.00	3.6	500000	45	P	
31	**P**	1	**248.200**	ug/l	1,241.00	3.6	500000	45	P	
39	**K**	1	**160200.000**	ug/l	801,000.00	0.5	500000	45	A	
44	**Ca**	1	**18000.000**	ug/l	90,000.00	2.2	500000	45	A	
47	**Ti**	1	**74.400**	ug/l	372.00	0.7	5000	45	P	
51	**V**	1	**13.130**	ug/l	65.65	1.3	5000	45	P	
52	**Cr**	1	**21.720**	ug/l	108.60	2.1	5000	45	P	
55	**Mn**	1	**16.040**	ug/l	80.20	0.8	5000	45	P	
57	**Fe**	1	**579.300**	ug/l	2,896.50	0.8	500000	74	P	
59	**Co**	1	**12.030**	ug/l	60.15	0.7	5000	45	P	
60	**Ni**	1	**39.630**	ug/l	198.15	1.5	5000	74	P	
63	**Cu**	1	**3.170**	ug/l	15.85	2.2	5000	74	P	
66	**Zn**	1	**12.160**	ug/l	60.80	3.2	5000	74	P	
75	**As**	1	**6.800**	ug/l	34.00	3.5	5000	74	P	
78	**Se**	1	**0.332**	ug/l	1.66	14.5	5000	74	P	
88	**Sr**	1	**112.000**	ug/l	560.00	1.9	5000	74	P	
95	**Mo**	1	**0.902**	ug/l	4.51	5.4	5000	103	P	
109	**Ag**	1	**0.006**	ug/l	0.03	27.1	200	103	P	
111	**Cd**	1	**0.257**	ug/l	1.29	9.2	5000	103	P	
118	**Sn**	1	**4.370**	ug/l	21.85	1.8	5000	103	P	
123	**Sb**	1	**1.693**	ug/l	8.47	3.0	5000	103	P	
135	**Ba**	1	**18.820**	ug/l	94.10	0.3	5000	103	P	
200	**Hg**	1	**0.070**	ug/l	0.35	0.4	50	209	P	
205	**Tl**	1	**0.055**	ug/l	0.27	19.5	5000	103	P	
208	**Pb**	1	**0.198**	ug/l	0.99	4.3	5000	209	P	
238	**U**	1	**0.727**	ug/l	3.63	4.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131635	0.50	174500	**75.4**	30	-	125	
45	Sc	1	1757369	1.13	2091000	**84.0**	30	-	125	
74	Ge	1	3798700	1.60	4536000	**83.7**	30	-	125	
103	Rh	1	4810374	0.33	6076000	**79.2**	30	-	125	
165	Ho	1	2272636	2.26	2580000	**88.1**	30	-	125	
175	Lu	1	1924063	1.09	2136000	**90.1**	30	-	125	
209	Bi	1	2120306	1.79	2616000	**81.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\167SMPL.D\167SMPL.D#
Date Acquired: Sep 27 2011 08:05 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-20-A Vial Number: 4504
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.055**	ug/l	0.27	18.9	5000	6	P	
23	**Na**	1	**359900.000**	ug/l	1,799,500.00	2.9	500000	45	A	
24	**Mg**	1	**20840.000**	ug/l	104,200.00	4.1	500000	45	A	
27	**Al**	1	**27.410**	ug/l	137.05	5.8	500000	45	P	
31	**P**	1	**606.200**	ug/l	3,031.00	4.1	500000	45	P	
39	**K**	1	**162900.000**	ug/l	814,500.00	2.5	500000	45	A	
44	**Ca**	1	**19120.000**	ug/l	95,600.00	1.7	500000	45	A	
47	**Ti**	1	**67.010**	ug/l	335.05	3.7	5000	45	P	
51	**V**	1	**15.780**	ug/l	78.90	2.9	5000	45	P	
52	**Cr**	1	**23.270**	ug/l	116.35	2.9	5000	45	P	
55	**Mn**	1	**117.100**	ug/l	585.50	3.7	5000	45	P	
57	**Fe**	1	**564.700**	ug/l	2,823.50	0.9	500000	74	P	
59	**Co**	1	**9.066**	ug/l	45.33	4.1	5000	45	P	
60	**Ni**	1	**37.360**	ug/l	186.80	0.9	5000	74	P	
63	**Cu**	1	**2.121**	ug/l	10.61	0.7	5000	74	P	
66	**Zn**	1	**11.640**	ug/l	58.20	3.0	5000	74	P	
75	**As**	1	**13.830**	ug/l	69.15	0.9	5000	74	P	
78	**Se**	1	**0.373**	ug/l	1.87	15.9	5000	74	P	
88	**Sr**	1	**285.100**	ug/l	1,425.50	0.9	5000	74	A	
95	**Mo**	1	**0.666**	ug/l	3.33	2.2	5000	103	P	
109	**Ag**	1	**0.006**	ug/l	0.03	14.5	200	103	P	
111	**Cd**	1	**0.308**	ug/l	1.54	13.3	5000	103	P	
118	**Sn**	1	**3.569**	ug/l	17.85	1.6	5000	103	P	
123	**Sb**	1	**2.171**	ug/l	10.86	2.2	5000	103	P	
135	**Ba**	1	**99.150**	ug/l	495.75	1.8	5000	103	P	
200	**Hg**	1	**0.097**	ug/l	0.49	2.7	50	209	P	
205	**Tl**	1	**0.056**	ug/l	0.28	10.7	5000	103	P	
208	**Pb**	1	**0.186**	ug/l	0.93	11.0	5000	209	P	
238	**U**	1	**0.627**	ug/l	3.13	3.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130332	1.14	174500	**74.7**	30	-	125	
45	Sc	1	1767409	3.21	2091000	**84.5**	30	-	125	
74	Ge	1	3803494	0.78	4536000	**83.9**	30	-	125	
103	Rh	1	4844286	0.34	6076000	**79.7**	30	-	125	
165	Ho	1	2275167	1.38	2580000	**88.2**	30	-	125	
175	Lu	1	1931923	2.05	2136000	**90.4**	30	-	125	
209	Bi	1	2135914	1.24	2616000	**81.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\168SMPL.D\168SMPL.D#
Date Acquired: Sep 27 2011 08:09 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-21-A Vial Number: 4505
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.052**	ug/l	0.26	21.8	5000	6	P	
23	**Na**	1	**363800.000**	ug/l	1,819,000.00	2.3	500000	45	A	
24	**Mg**	1	**24800.000**	ug/l	124,000.00	1.7	500000	45	A	
27	**Al**	1	**23.500**	ug/l	117.50	2.5	500000	45	P	
31	**P**	1	**284.000**	ug/l	1,420.00	1.0	500000	45	P	
39	**K**	1	**165700.000**	ug/l	828,500.00	1.6	500000	45	A	
44	**Ca**	1	**19900.000**	ug/l	99,500.00	2.5	500000	45	A	
47	**Ti**	1	**61.980**	ug/l	309.90	2.6	5000	45	P	
51	**V**	1	**13.940**	ug/l	69.70	1.9	5000	45	P	
52	**Cr**	1	**19.500**	ug/l	97.50	2.6	5000	45	P	
55	**Mn**	1	**15.620**	ug/l	78.10	1.6	5000	45	P	
57	**Fe**	1	**542.400**	ug/l	2,712.00	1.8	500000	74	P	
59	**Co**	1	**11.120**	ug/l	55.60	3.6	5000	45	P	
60	**Ni**	1	**39.450**	ug/l	197.25	1.7	5000	74	P	
63	**Cu**	1	**2.793**	ug/l	13.97	1.1	5000	74	P	
66	**Zn**	1	**13.220**	ug/l	66.10	2.1	5000	74	P	
75	**As**	1	**9.187**	ug/l	45.94	1.4	5000	74	P	
78	**Se**	1	**0.389**	ug/l	1.95	16.7	5000	74	P	
88	**Sr**	1	**151.400**	ug/l	757.00	1.5	5000	74	A	
95	**Mo**	1	**0.795**	ug/l	3.97	6.1	5000	103	P	
109	**Ag**	1	**0.011**	ug/l	0.06	13.5	200	103	P	
111	**Cd**	1	**0.269**	ug/l	1.35	20.0	5000	103	P	
118	**Sn**	1	**2.947**	ug/l	14.74	2.7	5000	103	P	
123	**Sb**	1	**1.684**	ug/l	8.42	3.7	5000	103	P	
135	**Ba**	1	**19.970**	ug/l	99.85	2.8	5000	103	P	
200	**Hg**	1	**0.075**	ug/l	0.38	7.5	50	209	P	
205	**Tl**	1	**0.041**	ug/l	0.20	31.5	5000	103	P	
208	**Pb**	1	**0.206**	ug/l	1.03	9.1	5000	209	P	
238	**U**	1	**0.628**	ug/l	3.14	7.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	134461	1.85	174500	**77.1**	30	-	125	
45	Sc	1	1776306	2.37	2091000	**85.0**	30	-	125	
74	Ge	1	3806238	1.08	4536000	**83.9**	30	-	125	
103	Rh	1	4800134	1.79	6076000	**79.0**	30	-	125	
165	Ho	1	2299223	1.37	2580000	**89.1**	30	-	125	
175	Lu	1	1930079	2.18	2136000	**90.4**	30	-	125	
209	Bi	1	2130531	1.64	2616000	**81.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\169SMPL.D\169SMPL.D#
Date Acquired: Sep 27 2011 08:14 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28785-A-22-A Vial Number: 4506
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.046**	ug/l	0.23	69.6	5000	6	P	
23	**Na**	1	**367800.000**	ug/l	1,839,000.00	1.4	500000	45	A	
24	**Mg**	1	**21200.000**	ug/l	106,000.00	2.0	500000	45	A	
27	**Al**	1	**28.740**	ug/l	143.70	3.8	500000	45	P	
31	**P**	1	**1110.000**	ug/l	5,550.00	2.9	500000	45	P	
39	**K**	1	**169200.000**	ug/l	846,000.00	1.4	500000	45	A	
44	**Ca**	1	**19710.000**	ug/l	98,550.00	2.4	500000	45	A	
47	**Ti**	1	**69.360**	ug/l	346.80	1.4	5000	45	P	
51	**V**	1	**16.790**	ug/l	83.95	1.1	5000	45	P	
52	**Cr**	1	**24.650**	ug/l	123.25	1.3	5000	45	P	
55	**Mn**	1	**131.300**	ug/l	656.50	1.9	5000	45	P	
57	**Fe**	1	**593.800**	ug/l	2,969.00	2.1	500000	74	P	
59	**Co**	1	**9.348**	ug/l	46.74	2.1	5000	45	P	
60	**Ni**	1	**38.430**	ug/l	192.15	2.1	5000	74	P	
63	**Cu**	1	**2.188**	ug/l	10.94	2.2	5000	74	P	
66	**Zn**	1	**12.520**	ug/l	62.60	1.2	5000	74	P	
75	**As**	1	**21.980**	ug/l	109.90	2.2	5000	74	P	
78	**Se**	1	**0.461**	ug/l	2.30	5.9	5000	74	P	
88	**Sr**	1	**291.200**	ug/l	1,456.00	1.4	5000	74	A	
95	**Mo**	1	**0.772**	ug/l	3.86	6.6	5000	103	P	
109	**Ag**	1	**0.007**	ug/l	0.04	29.8	200	103	P	
111	**Cd**	1	**0.375**	ug/l	1.87	7.2	5000	103	P	
118	**Sn**	1	**3.767**	ug/l	18.84	1.6	5000	103	P	
123	**Sb**	1	**2.422**	ug/l	12.11	2.8	5000	103	P	
135	**Ba**	1	**103.100**	ug/l	515.50	1.5	5000	103	P	
200	**Hg**	1	**0.106**	ug/l	0.53	0.9	50	209	P	
205	**Tl**	1	**0.041**	ug/l	0.21	17.3	5000	103	P	
208	**Pb**	1	**0.183**	ug/l	0.91	6.6	5000	209	P	
238	**U**	1	**0.666**	ug/l	3.33	2.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130966	0.84	174500	**75.1**	30	-	125	
45	Sc	1	1748262	1.16	2091000	**83.6**	30	-	125	
74	Ge	1	3758878	1.21	4536000	**82.9**	30	-	125	
103	Rh	1	4731233	1.12	6076000	**77.9**	30	-	125	
165	Ho	1	2266061	1.54	2580000	**87.8**	30	-	125	
175	Lu	1	1880027	1.30	2136000	**88.0**	30	-	125	
209	Bi	1	2092049	0.77	2616000	**80.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\170SMPL.D\170SMPL.D#
Date Acquired: Sep 27 2011 08:18 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.560**	ug/l	49.56	0.5	5000	6	P	
23	**Na**	1	**4912.000**	ug/l	4,912.00	1.9	500000	45	A	
24	**Mg**	1	**4798.000**	ug/l	4,798.00	1.8	500000	45	A	
27	**Al**	1	**473.600**	ug/l	473.60	1.5	500000	45	P	
31	**P**	1	**4687.000**	ug/l	4,687.00	0.7	500000	45	P	
39	**K**	1	**4941.000**	ug/l	4,941.00	1.2	500000	45	A	
44	**Ca**	1	**4920.000**	ug/l	4,920.00	1.1	500000	45	P	
47	**Ti**	1	**48.840**	ug/l	48.84	1.5	5000	45	P	
51	**V**	1	**48.110**	ug/l	48.11	0.7	5000	45	P	
52	**Cr**	1	**47.870**	ug/l	47.87	1.4	5000	45	P	
55	**Mn**	1	**49.570**	ug/l	49.57	1.1	5000	45	P	
57	**Fe**	1	**4972.000**	ug/l	4,972.00	1.2	500000	74	A	
59	**Co**	1	**48.480**	ug/l	48.48	2.0	5000	45	P	
60	**Ni**	1	**48.820**	ug/l	48.82	1.1	5000	74	P	
63	**Cu**	1	**49.470**	ug/l	49.47	0.9	5000	74	P	
66	**Zn**	1	**49.710**	ug/l	49.71	1.3	5000	74	P	
75	**As**	1	**48.780**	ug/l	48.78	1.3	5000	74	P	
78	**Se**	1	**48.770**	ug/l	48.77	0.8	5000	74	P	
88	**Sr**	1	**49.940**	ug/l	49.94	1.0	5000	74	P	
95	**Mo**	1	**48.560**	ug/l	48.56	2.0	5000	103	P	
109	**Ag**	1	**48.240**	ug/l	48.24	2.8	200	103	P	
111	**Cd**	1	**49.400**	ug/l	49.40	3.1	5000	103	P	
118	**Sn**	1	**49.810**	ug/l	49.81	2.4	5000	103	P	
123	**Sb**	1	**50.080**	ug/l	50.08	3.6	5000	103	P	
135	**Ba**	1	**50.760**	ug/l	50.76	1.5	5000	103	P	
200	**Hg**	1	**2.426**	ug/l	2.43	0.6	50	209	P	
205	**Tl**	1	**47.240**	ug/l	47.24	2.3	5000	103	P	
208	**Pb**	1	**48.860**	ug/l	48.86	1.8	5000	209	P	
238	**U**	1	**49.450**	ug/l	49.45	2.1	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	141642	0.84	174500	**81.2**	30	-	125	
45	Sc	1	1860900	1.57	2091000	**89.0**	30	-	125	
74	Ge	1	4078018	0.89	4536000	**89.9**	30	-	125	
103	Rh	1	5448901	2.23	6076000	**89.7**	30	-	125	
165	Ho	1	2478987	1.76	2580000	**96.1**	30	-	125	
175	Lu	1	2063168	1.54	2136000	**96.6**	30	-	125	
209	Bi	1	2453061	1.49	2616000	**93.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\171SMPL.D\171SMPL.D#
Date Acquired: Sep 27 2011 08:22 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.003**	ug/l	0.00	205.2	5000	6	P	
23	Na	1	**8.880**	ug/l	8.88	26.0	500000	45	P	
24	Mg	1	**0.358**	ug/l	0.36	2.7	500000	45	P	
27	Al	1	**-0.142**	ug/l	-0.14	108.9	500000	45	P	
31	P	1	**-4.833**	ug/l	-4.83	21.4	500000	45	P	
39	K	1	**1.458**	ug/l	1.46	108.0	500000	45	P	
44	Ca	1	**-1.411**	ug/l	-1.41	3.1	500000	45	P	
47	Ti	1	**0.042**	ug/l	0.04	110.0	5000	45	P	
51	V	1	**-0.013**	ug/l	-0.01	133.3	5000	45	P	
52	Cr	1	**0.127**	ug/l	0.13	4.9	5000	45	P	
55	Mn	1	**-0.004**	ug/l	0.00	297.2	5000	45	P	
57	Fe	1	**3.375**	ug/l	3.38	9.5	500000	74	P	
59	Co	1	**0.010**	ug/l	0.01	27.6	5000	45	P	
60	Ni	1	**0.011**	ug/l	0.01	195.3	5000	74	P	
63	Cu	1	**0.076**	ug/l	0.08	27.8	5000	74	P	
66	Zn	1	**-0.041**	ug/l	-0.04	102.4	5000	74	P	
75	As	1	**0.022**	ug/l	0.02	91.9	5000	74	P	
78	Se	1	**0.179**	ug/l	0.18	48.3	5000	74	P	
88	Sr	1	**-0.002**	ug/l	0.00	634.7	5000	74	P	
95	Mo	1	**0.088**	ug/l	0.09	38.4	5000	103	P	
109	Ag	1	**0.003**	ug/l	0.00	129.4	200	103	P	
111	Cd	1	**0.006**	ug/l	0.01	168.1	5000	103	P	
118	Sn	1	**0.173**	ug/l	0.17	25.1	5000	103	P	
123	Sb	1	**0.040**	ug/l	0.04	8.4	5000	103	P	
135	Ba	1	**-0.006**	ug/l	-0.01	207.5	5000	103	P	
200	Hg	1	**0.009**	ug/l	0.01	13.9	50	209	P	
205	Tl	1	**0.278**	ug/l	0.28	7.7	5000	103	P	
208	Pb	1	**-0.013**	ug/l	-0.01	165.8	5000	209	P	
238	U	1	**0.016**	ug/l	0.02	11.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	141438	0.35	174500	**81.1**	30	-	125	
45	Sc	1	1850164	2.35	2091000	**88.5**	30	-	125	
74	Ge	1	4085465	1.11	4536000	**90.1**	30	-	125	
103	Rh	1	5577789	0.41	6076000	**91.8**	30	-	125	
165	Ho	1	2474470	1.80	2580000	**95.9**	30	-	125	
175	Lu	1	2086856	0.99	2136000	**97.7**	30	-	125	
209	Bi	1	2527114	0.45	2616000	**96.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\172SMPL.D\172SMPL.D#
Date Acquired: Sep 27 2011 08:27 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-96166/15-A Vial Number: 2101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.04	35.5	5000	6	P	
23	**Na**	1	**5.484**	ug/l	54.84	16.7	500000	45	P	
24	**Mg**	1	**0.743**	ug/l	7.43	4.4	500000	45	P	
27	**Al**	1	**-3.076**	ug/l	-30.76	1.2	500000	45	P	
31	**P**	1	**-6.248**	ug/l	-62.48	25.9	500000	45	P	
39	**K**	1	**1.312**	ug/l	13.12	55.0	500000	45	P	
44	**Ca**	1	**-3.222**	ug/l	-32.22	14.8	500000	45	P	
47	**Ti**	1	**0.100**	ug/l	1.00	15.6	5000	45	P	
51	**V**	1	**-0.003**	ug/l	-0.03	557.4	5000	45	P	
52	**Cr**	1	**-0.013**	ug/l	-0.13	15.5	5000	45	P	
55	**Mn**	1	**0.017**	ug/l	0.17	91.5	5000	45	P	
57	**Fe**	1	**3.479**	ug/l	34.79	4.2	500000	74	P	
59	**Co**	1	**0.004**	ug/l	0.04	58.2	5000	45	P	
60	**Ni**	1	**0.016**	ug/l	0.16	73.9	5000	74	P	
63	**Cu**	1	**0.149**	ug/l	1.49	17.2	5000	74	P	
66	**Zn**	1	**0.017**	ug/l	0.17	154.5	5000	74	P	
75	**As**	1	**0.016**	ug/l	0.16	23.8	5000	74	P	
78	**Se**	1	**0.072**	ug/l	0.72	76.0	5000	74	P	
88	**Sr**	1	**0.031**	ug/l	0.31	7.6	5000	74	P	
95	**Mo**	1	**0.027**	ug/l	0.27	70.5	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.01	334.8	200	103	P	
111	**Cd**	1	**-0.002**	ug/l	-0.02	127.9	5000	103	P	
118	**Sn**	1	**0.090**	ug/l	0.90	23.7	5000	103	P	
123	**Sb**	1	**0.016**	ug/l	0.16	31.9	5000	103	P	
135	**Ba**	1	**0.060**	ug/l	0.60	32.7	5000	103	P	
200	**Hg**	1	**0.009**	ug/l	0.09	34.0	50	209	P	
205	**Tl**	1	**0.106**	ug/l	1.06	9.2	5000	103	P	
208	**Pb**	1	**0.000**	ug/l	0.00	9168.4	5000	209	P	
238	**U**	1	**0.003**	ug/l	0.03	24.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	137974	2.00	174500	**79.1**	30	-	125	
45	Sc	1	1830815	0.69	2091000	**87.6**	30	-	125	
74	Ge	1	4075009	0.65	4536000	**89.8**	30	-	125	
103	Rh	1	5541823	0.70	6076000	**91.2**	30	-	125	
165	Ho	1	2462588	0.87	2580000	**95.4**	30	-	125	
175	Lu	1	2083028	1.03	2136000	**97.5**	30	-	125	
209	Bi	1	2554544	2.24	2616000	**97.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\173SMPL.D\173SMPL.D#
Date Acquired: Sep 27 2011 08:31 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-1-A SD Vial Number: 2102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.111**	ug/l	5.56	7.5	5000	6	P	
23	**Na**	1	**31.640**	ug/l	1,582.00	4.2	500000	45	P	
24	**Mg**	1	**925.400**	ug/l	46,270.00	1.6	500000	45	A	
27	**Al**	1	**6315.000**	ug/l	315,750.00	1.4	500000	45	A	
31	**P**	1	**334.900**	ug/l	16,745.00	2.2	500000	45	P	
39	**K**	1	**106.500**	ug/l	5,325.00	2.6	500000	45	P	
44	**Ca**	1	**1246.000**	ug/l	62,300.00	1.0	500000	45	P	
47	**Ti**	1	**229.100**	ug/l	11,455.00	1.9	5000	45	P	
51	**V**	1	**13.580**	ug/l	679.00	1.8	5000	45	P	
52	**Cr**	1	**9.178**	ug/l	458.90	1.0	5000	45	P	
55	**Mn**	1	**248.900**	ug/l	12,445.00	2.4	5000	45	A	
57	**Fe**	1	**6459.000**	ug/l	322,950.00	0.5	500000	74	A	
59	**Co**	1	**2.556**	ug/l	127.80	2.2	5000	45	P	
60	**Ni**	1	**9.922**	ug/l	496.10	1.4	5000	74	P	
63	**Cu**	1	**10.160**	ug/l	508.00	2.9	5000	74	P	
66	**Zn**	1	**42.590**	ug/l	2,129.50	1.8	5000	74	P	
75	**As**	1	**15.260**	ug/l	763.00	1.5	5000	74	P	
78	**Se**	1	**0.330**	ug/l	16.51	33.5	5000	74	P	
88	**Sr**	1	**10.640**	ug/l	532.00	1.8	5000	74	P	
95	**Mo**	1	**0.205**	ug/l	10.26	14.1	5000	103	P	
109	**Ag**	1	**0.111**	ug/l	5.55	1.8	200	103	P	
111	**Cd**	1	**0.394**	ug/l	19.68	21.1	5000	103	P	
118	**Sn**	1	**1.381**	ug/l	69.05	2.1	5000	103	P	
123	**Sb**	1	**0.514**	ug/l	25.72	5.2	5000	103	P	
135	**Ba**	1	**57.470**	ug/l	2,873.50	0.6	5000	103	P	
200	**Hg**	1	**0.070**	ug/l	3.49	18.4	50	209	P	
205	**Tl**	1	**0.108**	ug/l	5.40	7.7	5000	103	P	
208	**Pb**	1	**38.480**	ug/l	1,924.00	5.2	5000	209	P	
238	**U**	1	**0.138**	ug/l	6.88	5.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	146713	1.35	174500	**84.1**	30	-	125	
45	Sc	1	1909837	1.87	2091000	**91.3**	30	-	125	
74	Ge	1	4171538	1.48	4536000	**92.0**	30	-	125	
103	Rh	1	5482472	0.36	6076000	**90.2**	30	-	125	
165	Ho	1	2481276	0.85	2580000	**96.2**	30	-	125	
175	Lu	1	2071735	1.54	2136000	**97.0**	30	-	125	
209	Bi	1	2450470	4.23	2616000	**93.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\174SMPL.D\174SMPL.D#
Date Acquired: Sep 27 2011 08:35 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-1-A Vial Number: 2103
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.728**	ug/l	7.28	8.0	5000	6	P	
23	**Na**	1	**159.500**	ug/l	1,595.00	2.1	500000	45	P	
24	**Mg**	1	**4511.000**	ug/l	45,110.00	1.0	500000	45	A	
27	**Al**	1	**31710.000**	ug/l	317,100.00	1.9	500000	45	A	
31	**P**	1	**1736.000**	ug/l	17,360.00	1.7	500000	45	P	
39	**K**	1	**561.300**	ug/l	5,613.00	2.7	500000	45	A	
44	**Ca**	1	**6389.000**	ug/l	63,890.00	2.2	500000	45	P	
47	**Ti**	1	**1181.000**	ug/l	11,810.00	2.5	5000	45	P	
51	**V**	1	**70.240**	ug/l	702.40	2.3	5000	45	P	
52	**Cr**	1	**46.610**	ug/l	466.10	2.4	5000	45	P	
55	**Mn**	1	**1231.000**	ug/l	12,310.00	1.2	5000	45	A	
57	**Fe**	1	**32440.000**	ug/l	324,400.00	2.2	500000	74	A	
59	**Co**	1	**13.120**	ug/l	131.20	2.9	5000	45	P	
60	**Ni**	1	**51.410**	ug/l	514.10	1.7	5000	74	P	
63	**Cu**	1	**52.030**	ug/l	520.30	2.3	5000	74	P	
66	**Zn**	1	**218.000**	ug/l	2,180.00	1.4	5000	74	P	
75	**As**	1	**79.940**	ug/l	799.40	1.6	5000	74	P	
78	**Se**	1	**1.275**	ug/l	12.75	7.5	5000	74	P	
88	**Sr**	1	**55.390**	ug/l	553.90	1.0	5000	74	P	
95	**Mo**	1	**0.996**	ug/l	9.96	2.8	5000	103	P	
109	**Ag**	1	**0.617**	ug/l	6.17	4.2	200	103	P	
111	**Cd**	1	**2.080**	ug/l	20.80	4.1	5000	103	P	
118	**Sn**	1	**7.399**	ug/l	73.99	1.7	5000	103	P	
123	**Sb**	1	**2.638**	ug/l	26.38	0.6	5000	103	P	
135	**Ba**	1	**299.600**	ug/l	2,996.00	2.2	5000	103	P	
200	**Hg**	1	**0.310**	ug/l	3.10	3.7	50	209	P	
205	**Tl**	1	**0.215**	ug/l	2.15	5.0	5000	103	P	
208	**Pb**	1	**198.000**	ug/l	1,980.00	1.4	5000	209	A	
238	**U**	1	**0.708**	ug/l	7.08	3.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	137967	1.71	174500	**79.1**	30	-	125	
45	Sc	1	1884354	1.35	2091000	**90.1**	30	-	125	
74	Ge	1	4044477	0.74	4536000	**89.2**	30	-	125	
103	Rh	1	5319201	0.70	6076000	**87.5**	30	-	125	
165	Ho	1	2466554	0.85	2580000	**95.6**	30	-	125	
175	Lu	1	2068138	0.66	2136000	**96.8**	30	-	125	
209	Bi	1	2443180	1.18	2616000	**93.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\175SMPL.D\175SMPL.D#
Date Acquired: Sep 27 2011 08:40 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-1-B DU Vial Number: 2104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.653**	ug/l	6.53	6.1	5000	6	P	
23	**Na**	1	**164.800**	ug/l	1,648.00	3.5	500000	45	P	
24	**Mg**	1	**4645.000**	ug/l	46,450.00	3.3	500000	45	A	
27	**Al**	1	**33010.000**	ug/l	330,100.00	3.0	500000	45	A	
31	**P**	1	**1821.000**	ug/l	18,210.00	2.0	500000	45	P	
39	**K**	1	**584.200**	ug/l	5,842.00	1.0	500000	45	A	
44	**Ca**	1	**6586.000**	ug/l	65,860.00	1.5	500000	45	P	
47	**Ti**	1	**1219.000**	ug/l	12,190.00	1.8	5000	45	P	
51	**V**	1	**72.930**	ug/l	729.30	2.2	5000	45	P	
52	**Cr**	1	**48.070**	ug/l	480.70	2.1	5000	45	P	
55	**Mn**	1	**1275.000**	ug/l	12,750.00	1.6	5000	45	A	
57	**Fe**	1	**32800.000**	ug/l	328,000.00	1.1	500000	74	A	
59	**Co**	1	**13.640**	ug/l	136.40	2.2	5000	45	P	
60	**Ni**	1	**52.600**	ug/l	526.00	0.5	5000	74	P	
63	**Cu**	1	**52.880**	ug/l	528.80	0.8	5000	74	P	
66	**Zn**	1	**222.400**	ug/l	2,224.00	0.5	5000	74	P	
75	**As**	1	**81.700**	ug/l	817.00	0.6	5000	74	P	
78	**Se**	1	**1.261**	ug/l	12.61	0.4	5000	74	P	
88	**Sr**	1	**56.140**	ug/l	561.40	0.7	5000	74	P	
95	**Mo**	1	**1.030**	ug/l	10.30	0.7	5000	103	P	
109	**Ag**	1	**0.634**	ug/l	6.34	2.2	200	103	P	
111	**Cd**	1	**2.144**	ug/l	21.44	5.1	5000	103	P	
118	**Sn**	1	**7.511**	ug/l	75.11	1.3	5000	103	P	
123	**Sb**	1	**2.592**	ug/l	25.92	2.6	5000	103	P	
135	**Ba**	1	**301.400**	ug/l	3,014.00	1.7	5000	103	P	
200	**Hg**	1	**0.318**	ug/l	3.18	6.8	50	209	P	
205	**Tl**	1	**0.213**	ug/l	2.13	2.3	5000	103	P	
208	**Pb**	1	**202.300**	ug/l	2,023.00	1.3	5000	209	A	
238	**U**	1	**0.719**	ug/l	7.19	2.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	134868	1.69	174500	**77.3**	30	-	125	
45	Sc	1	1835984	1.45	2091000	**87.8**	30	-	125	
74	Ge	1	4021598	0.28	4536000	**88.7**	30	-	125	
103	Rh	1	5305241	0.56	6076000	**87.3**	30	-	125	
165	Ho	1	2435668	0.42	2580000	**94.4**	30	-	125	
175	Lu	1	2059033	1.48	2136000	**96.4**	30	-	125	
209	Bi	1	2399214	0.68	2616000	**91.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\176SMPL.D\176SMPL.D#
Date Acquired: Sep 27 2011 08:44 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-1-C MS Vial Number: 2105
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.469**	ug/l	123.45	1.0	5000	6	P	
23	**Na**	1	**507.200**	ug/l	25,360.00	2.5	500000	45	A	
24	**Mg**	1	**1463.000**	ug/l	73,150.00	2.4	500000	45	A	
27	**Al**	1	**7184.000**	ug/l	359,200.00	1.5	500000	45	A	
31	**P**	1	**771.600**	ug/l	38,580.00	1.2	500000	45	P	
39	**K**	1	**588.300**	ug/l	29,415.00	1.7	500000	45	A	
44	**Ca**	1	**1855.000**	ug/l	92,750.00	1.7	500000	45	P	
47	**Ti**	1	**371.200**	ug/l	18,560.00	2.3	5000	45	P	
51	**V**	1	**37.410**	ug/l	1,870.50	2.7	5000	45	P	
52	**Cr**	1	**18.310**	ug/l	915.50	3.1	5000	45	P	
55	**Mn**	1	**294.500**	ug/l	14,725.00	2.8	5000	45	A	
57	**Fe**	1	**7030.000**	ug/l	351,500.00	2.2	500000	74	A	
59	**Co**	1	**26.100**	ug/l	1,305.00	3.0	5000	45	P	
60	**Ni**	1	**35.030**	ug/l	1,751.50	1.2	5000	74	P	
63	**Cu**	1	**22.380**	ug/l	1,119.00	1.4	5000	74	P	
66	**Zn**	1	**68.090**	ug/l	3,404.50	2.1	5000	74	P	
75	**As**	1	**108.200**	ug/l	5,410.00	1.5	5000	74	P	
78	**Se**	1	**92.000**	ug/l	4,600.00	1.4	5000	74	P	
88	**Sr**	1	**11.380**	ug/l	569.00	1.5	5000	74	P	
95	**Mo**	1	**110.400**	ug/l	5,520.00	0.8	5000	103	P	
109	**Ag**	1	**13.600**	ug/l	680.00	1.8	200	103	P	
111	**Cd**	1	**2.738**	ug/l	136.90	6.5	5000	103	P	
118	**Sn**	1	**106.700**	ug/l	5,335.00	1.7	5000	103	P	
123	**Sb**	1	**46.300**	ug/l	2,315.00	1.9	5000	103	P	
135	**Ba**	1	**155.300**	ug/l	7,765.00	1.2	5000	103	P	
200	**Hg**	1	**1.124**	ug/l	56.20	3.3	50	209	P	
205	**Tl**	1	**99.320**	ug/l	4,966.00	2.4	5000	103	A	
208	**Pb**	1	**62.170**	ug/l	3,108.50	3.5	5000	209	P	
238	**U**	1	**0.146**	ug/l	7.29	5.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	142491	1.84	174500	**81.7**	30	-	125	
45	Sc	1	1865431	1.86	2091000	**89.2**	30	-	125	
74	Ge	1	4097987	0.70	4536000	**90.3**	30	-	125	
103	Rh	1	5460535	0.42	6076000	**89.9**	30	-	125	
165	Ho	1	2472055	0.78	2580000	**95.8**	30	-	125	
175	Lu	1	2092693	0.39	2136000	**98.0**	30	-	125	
209	Bi	1	2397475	1.93	2616000	**91.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\177SMPL.D\177SMPL.D#
Date Acquired: Sep 27 2011 08:48 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-1-D MSD Vial Number: 2106
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.421**	ug/l	121.05	1.3	5000	6	P	
23	**Na**	1	**510.700**	ug/l	25,535.00	3.0	500000	45	A	
24	**Mg**	1	**1431.000**	ug/l	71,550.00	1.9	500000	45	A	
27	**Al**	1	**6813.000**	ug/l	340,650.00	2.1	500000	45	A	
31	**P**	1	**767.000**	ug/l	38,350.00	3.3	500000	45	P	
39	**K**	1	**593.400**	ug/l	29,670.00	2.7	500000	45	A	
44	**Ca**	1	**1838.000**	ug/l	91,900.00	2.1	500000	45	P	
47	**Ti**	1	**360.400**	ug/l	18,020.00	2.1	5000	45	P	
51	**V**	1	**36.510**	ug/l	1,825.50	2.5	5000	45	P	
52	**Cr**	1	**18.540**	ug/l	927.00	3.3	5000	45	P	
55	**Mn**	1	**266.100**	ug/l	13,305.00	3.2	5000	45	A	
57	**Fe**	1	**6872.000**	ug/l	343,600.00	2.6	500000	74	A	
59	**Co**	1	**25.350**	ug/l	1,267.50	3.9	5000	45	P	
60	**Ni**	1	**34.870**	ug/l	1,743.50	2.3	5000	74	P	
63	**Cu**	1	**22.130**	ug/l	1,106.50	2.8	5000	74	P	
66	**Zn**	1	**67.510**	ug/l	3,375.50	2.3	5000	74	P	
75	**As**	1	**106.800**	ug/l	5,340.00	2.4	5000	74	P	
78	**Se**	1	**90.300**	ug/l	4,515.00	1.9	5000	74	P	
88	**Sr**	1	**11.330**	ug/l	566.50	2.2	5000	74	P	
95	**Mo**	1	**111.200**	ug/l	5,560.00	2.0	5000	103	P	
109	**Ag**	1	**13.570**	ug/l	678.50	2.0	200	103	P	
111	**Cd**	1	**2.728**	ug/l	136.40	5.8	5000	103	P	
118	**Sn**	1	**108.100**	ug/l	5,405.00	2.1	5000	103	P	
123	**Sb**	1	**46.380**	ug/l	2,319.00	2.1	5000	103	P	
135	**Ba**	1	**153.200**	ug/l	7,660.00	2.0	5000	103	P	
200	**Hg**	1	**1.121**	ug/l	56.05	4.7	50	209	P	
205	**Tl**	1	**96.360**	ug/l	4,818.00	1.4	5000	103	A	
208	**Pb**	1	**62.400**	ug/l	3,120.00	5.7	5000	209	P	
238	**U**	1	**0.139**	ug/l	6.97	10.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	142931	1.82	174500	**81.9**	30	-	125	
45	Sc	1	1880637	2.00	2091000	**89.9**	30	-	125	
74	Ge	1	4089293	1.25	4536000	**90.2**	30	-	125	
103	Rh	1	5460274	0.33	6076000	**89.9**	30	-	125	
165	Ho	1	2427067	1.45	2580000	**94.1**	30	-	125	
175	Lu	1	2030427	0.85	2136000	**95.1**	30	-	125	
209	Bi	1	2391754	4.35	2616000	**91.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\178SMPL.D\178SMPL.D#
Date Acquired: Sep 27 2011 08:53 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-1-A PDS Vial Number: 2107
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.402**	ug/l	120.10	2.9	5000	6	P	
23	**Na**	1	**482.600**	ug/l	24,130.00	2.0	500000	45	A	
24	**Mg**	1	**1324.000**	ug/l	66,200.00	0.8	500000	45	A	
27	**Al**	1	**6172.000**	ug/l	308,600.00	0.7	500000	45	A	
31	**P**	1	**734.100**	ug/l	36,705.00	1.9	500000	45	P	
39	**K**	1	**582.100**	ug/l	29,105.00	1.7	500000	45	A	
44	**Ca**	1	**1625.000**	ug/l	81,250.00	1.0	500000	45	P	
47	**Ti**	1	**325.900**	ug/l	16,295.00	1.7	5000	45	P	
51	**V**	1	**34.660**	ug/l	1,733.00	1.6	5000	45	P	
52	**Cr**	1	**17.450**	ug/l	872.50	2.3	5000	45	P	
55	**Mn**	1	**264.900**	ug/l	13,245.00	1.2	5000	45	A	
57	**Fe**	1	**6827.000**	ug/l	341,350.00	1.7	500000	74	A	
59	**Co**	1	**24.570**	ug/l	1,228.50	2.8	5000	45	P	
60	**Ni**	1	**32.760**	ug/l	1,638.00	1.2	5000	74	P	
63	**Cu**	1	**21.790**	ug/l	1,089.50	1.0	5000	74	P	
66	**Zn**	1	**63.860**	ug/l	3,193.00	1.2	5000	74	P	
75	**As**	1	**106.900**	ug/l	5,345.00	0.4	5000	74	P	
78	**Se**	1	**89.770**	ug/l	4,488.50	0.2	5000	74	P	
88	**Sr**	1	**10.310**	ug/l	515.50	0.8	5000	74	P	
95	**Mo**	1	**110.200**	ug/l	5,510.00	1.7	5000	103	P	
109	**Ag**	1	**13.380**	ug/l	669.00	2.8	200	103	P	
111	**Cd**	1	**2.560**	ug/l	128.00	3.6	5000	103	P	
118	**Sn**	1	**111.000**	ug/l	5,550.00	1.9	5000	103	P	
123	**Sb**	1	**67.610**	ug/l	3,380.50	1.6	5000	103	P	
135	**Ba**	1	**147.900**	ug/l	7,395.00	1.5	5000	103	P	
200	**Hg**	1	**1.153**	ug/l	57.65	2.8	50	209	P	
205	**Tl**	1	**94.860**	ug/l	4,743.00	1.9	5000	103	A	
208	**Pb**	1	**59.900**	ug/l	2,995.00	3.9	5000	209	P	
238	**U**	1	**0.138**	ug/l	6.88	6.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	141261	0.57	174500	**81.0**	30	-	125	
45	Sc	1	1882266	1.64	2091000	**90.0**	30	-	125	
74	Ge	1	4057119	0.67	4536000	**89.4**	30	-	125	
103	Rh	1	5406265	1.19	6076000	**89.0**	30	-	125	
165	Ho	1	2421009	0.60	2580000	**93.8**	30	-	125	
175	Lu	1	2023330	1.23	2136000	**94.7**	30	-	125	
209	Bi	1	2379499	3.02	2616000	**91.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\179SMPL.D\179SMPL.D#
Date Acquired: Sep 27 2011 08:57 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-96166/16-A Vial Number: 2108
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.063**	ug/l	103.15	9.7	5000	6	P	
23	**Na**	1	**406.100**	ug/l	20,305.00	1.9	500000	45	A	
24	**Mg**	1	**408.900**	ug/l	20,445.00	1.2	500000	45	P	
27	**Al**	1	**77.940**	ug/l	3,897.00	4.1	500000	45	P	
31	**P**	1	**368.300**	ug/l	18,415.00	3.1	500000	45	P	
39	**K**	1	**411.900**	ug/l	20,595.00	2.6	500000	45	P	
44	**Ca**	1	**408.600**	ug/l	20,430.00	1.8	500000	45	P	
47	**Ti**	1	**98.910**	ug/l	4,945.50	1.7	5000	45	P	
51	**V**	1	**20.260**	ug/l	1,013.00	3.2	5000	45	P	
52	**Cr**	1	**8.055**	ug/l	402.75	2.8	5000	45	P	
55	**Mn**	1	**20.990**	ug/l	1,049.50	2.4	5000	45	P	
57	**Fe**	1	**438.200**	ug/l	21,910.00	0.7	500000	74	P	
59	**Co**	1	**20.430**	ug/l	1,021.50	1.8	5000	45	P	
60	**Ni**	1	**20.590**	ug/l	1,029.50	1.8	5000	74	P	
63	**Cu**	1	**10.650**	ug/l	532.50	0.4	5000	74	P	
66	**Zn**	1	**20.620**	ug/l	1,031.00	2.0	5000	74	P	
75	**As**	1	**81.670**	ug/l	4,083.50	1.3	5000	74	P	
78	**Se**	1	**80.230**	ug/l	4,011.50	0.8	5000	74	P	
88	**Sr**	1	**-0.010**	ug/l	-0.50	118.9	5000	74	P	
95	**Mo**	1	**100.000**	ug/l	5,000.00	0.9	5000	103	P	
109	**Ag**	1	**12.240**	ug/l	612.00	1.0	200	103	P	
111	**Cd**	1	**2.118**	ug/l	105.90	2.9	5000	103	P	
118	**Sn**	1	**104.800**	ug/l	5,240.00	1.6	5000	103	P	
123	**Sb**	1	**60.170**	ug/l	3,008.50	1.4	5000	103	P	
135	**Ba**	1	**83.750**	ug/l	4,187.50	1.0	5000	103	P	
200	**Hg**	1	**0.969**	ug/l	48.44	2.1	50	209	P	
205	**Tl**	1	**84.620**	ug/l	4,231.00	3.8	5000	103	A	
208	**Pb**	1	**20.040**	ug/l	1,002.00	2.6	5000	209	P	
238	**U**	1	**-0.001**	ug/l	-0.05	40.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129501	0.93	174500	**74.2**	30	-	125	
45	Sc	1	1813688	2.01	2091000	**86.7**	30	-	125	
74	Ge	1	4008172	0.76	4536000	**88.4**	30	-	125	
103	Rh	1	5481342	1.15	6076000	**90.2**	30	-	125	
165	Ho	1	2450165	0.78	2580000	**95.0**	30	-	125	
175	Lu	1	2086068	0.90	2136000	**97.7**	30	-	125	
209	Bi	1	2555774	2.18	2616000	**97.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\180SMPL.D\180SMPL.D#
Date Acquired: Sep 27 2011 09:02 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-96166/17-A Vial Number: 2109
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.054**	ug/l	102.70	3.0	5000	6	P	
23	**Na**	1	**412.000**	ug/l	20,600.00	2.1	500000	45	A	
24	**Mg**	1	**416.700**	ug/l	20,835.00	3.0	500000	45	P	
27	**Al**	1	**79.220**	ug/l	3,961.00	2.7	500000	45	P	
31	**P**	1	**373.000**	ug/l	18,650.00	2.8	500000	45	P	
39	**K**	1	**420.900**	ug/l	21,045.00	3.0	500000	45	P	
44	**Ca**	1	**417.800**	ug/l	20,890.00	2.1	500000	45	P	
47	**Ti**	1	**100.200**	ug/l	5,010.00	2.9	5000	45	P	
51	**V**	1	**20.300**	ug/l	1,015.00	2.1	5000	45	P	
52	**Cr**	1	**8.098**	ug/l	404.90	2.3	5000	45	P	
55	**Mn**	1	**21.350**	ug/l	1,067.50	1.6	5000	45	P	
57	**Fe**	1	**436.800**	ug/l	21,840.00	0.5	500000	74	P	
59	**Co**	1	**20.710**	ug/l	1,035.50	3.1	5000	45	P	
60	**Ni**	1	**20.430**	ug/l	1,021.50	1.9	5000	74	P	
63	**Cu**	1	**10.510**	ug/l	525.50	1.1	5000	74	P	
66	**Zn**	1	**20.490**	ug/l	1,024.50	0.4	5000	74	P	
75	**As**	1	**82.990**	ug/l	4,149.50	1.0	5000	74	P	
78	**Se**	1	**80.380**	ug/l	4,019.00	1.2	5000	74	P	
88	**Sr**	1	**0.001**	ug/l	0.07	358.5	5000	74	P	
95	**Mo**	1	**101.600**	ug/l	5,080.00	0.4	5000	103	P	
109	**Ag**	1	**12.350**	ug/l	617.50	0.7	200	103	P	
111	**Cd**	1	**2.074**	ug/l	103.70	3.7	5000	103	P	
118	**Sn**	1	**106.100**	ug/l	5,305.00	1.1	5000	103	P	
123	**Sb**	1	**61.020**	ug/l	3,051.00	1.2	5000	103	P	
135	**Ba**	1	**85.270**	ug/l	4,263.50	0.5	5000	103	P	
200	**Hg**	1	**0.972**	ug/l	48.59	2.1	50	209	P	
205	**Tl**	1	**86.180**	ug/l	4,309.00	4.7	5000	103	A	
208	**Pb**	1	**20.490**	ug/l	1,024.50	2.5	5000	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	352.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131538	1.81	174500	**75.4**	30	-	125	
45	Sc	1	1783093	2.32	2091000	**85.3**	30	-	125	
74	Ge	1	4002681	0.46	4536000	**88.2**	30	-	125	
103	Rh	1	5384681	0.59	6076000	**88.6**	30	-	125	
165	Ho	1	2438669	0.80	2580000	**94.5**	30	-	125	
175	Lu	1	2061557	1.15	2136000	**96.5**	30	-	125	
209	Bi	1	2503697	1.63	2616000	**95.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\181SMPL.D\181SMPL.D#
Date Acquired: Sep 27 2011 09:06 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-96166/18-A Vial Number: 2110
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**48.180**	ug/l	963.60	1.5	5000	6	P	
23	**Na**	1	**380.100**	ug/l	7,602.00	0.1	500000	45	A	
24	**Mg**	1	**1474.000**	ug/l	29,480.00	1.6	500000	45	A	
27	**Al**	1	**4005.000**	ug/l	80,100.00	1.2	500000	45	A	
31	**P**	1	**239.100**	ug/l	4,782.00	2.8	500000	45	P	
39	**K**	1	**1343.000**	ug/l	26,860.00	1.5	500000	45	A	
44	**Ca**	1	**3526.000**	ug/l	70,520.00	1.1	500000	45	P	
47	**Ti**	1	**114.100**	ug/l	2,282.00	2.1	5000	45	P	
51	**V**	1	**58.050**	ug/l	1,161.00	0.9	5000	45	P	
52	**Cr**	1	**48.180**	ug/l	963.60	0.9	5000	45	P	
55	**Mn**	1	**253.300**	ug/l	5,066.00	0.7	5000	45	A	
57	**Fe**	1	**7389.000**	ug/l	147,780.00	1.3	500000	74	A	
59	**Co**	1	**75.990**	ug/l	1,519.80	0.8	5000	45	A	
60	**Ni**	1	**58.640**	ug/l	1,172.80	0.8	5000	74	P	
63	**Cu**	1	**38.610**	ug/l	772.20	0.6	5000	74	P	
66	**Zn**	1	**159.500**	ug/l	3,190.00	0.5	5000	74	P	
75	**As**	1	**58.530**	ug/l	1,170.60	0.2	5000	74	P	
78	**Se**	1	**111.100**	ug/l	2,222.00	0.6	5000	74	P	
88	**Sr**	1	**60.640**	ug/l	1,212.80	0.4	5000	74	P	
95	**Mo**	1	**48.330**	ug/l	966.60	1.1	5000	103	P	
109	**Ag**	1	**26.850**	ug/l	537.00	0.8	200	103	P	
111	**Cd**	1	**60.140**	ug/l	1,202.80	0.7	5000	103	P	
118	**Sn**	1	**73.730**	ug/l	1,474.60	1.0	5000	103	P	
123	**Sb**	1	**117.100**	ug/l	2,342.00	0.7	5000	103	P	
135	**Ba**	1	**177.700**	ug/l	3,554.00	1.2	5000	103	P	
200	**Hg**	1	**8.496**	ug/l	169.92	1.0	50	209	P	
205	**Tl**	1	**96.960**	ug/l	1,939.20	4.7	5000	103	A	
208	**Pb**	1	**87.770**	ug/l	1,755.40	0.3	5000	209	A	
238	**U**	1	**0.536**	ug/l	10.71	1.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	127737	1.51	174500	**73.2**	30	-	125	
45	Sc	1	1814424	0.79	2091000	**86.8**	30	-	125	
74	Ge	1	4007350	0.19	4536000	**88.3**	30	-	125	
103	Rh	1	5408280	1.41	6076000	**89.0**	30	-	125	
165	Ho	1	2474460	0.95	2580000	**95.9**	30	-	125	
175	Lu	1	2071640	2.31	2136000	**97.0**	30	-	125	
209	Bi	1	2485964	0.37	2616000	**95.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\182SMPL.D\182SMPL.D#
Date Acquired: Sep 27 2011 09:10 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.380**	ug/l	51.38	0.8	5000	6	P	
23	**Na**	1	**4807.000**	ug/l	4,807.00	1.5	500000	45	A	
24	**Mg**	1	**4765.000**	ug/l	4,765.00	1.8	500000	45	A	
27	**Al**	1	**468.100**	ug/l	468.10	1.6	500000	45	P	
31	**P**	1	**4677.000**	ug/l	4,677.00	1.3	500000	45	P	
39	**K**	1	**4975.000**	ug/l	4,975.00	2.3	500000	45	A	
44	**Ca**	1	**4973.000**	ug/l	4,973.00	1.5	500000	45	P	
47	**Ti**	1	**49.580**	ug/l	49.58	1.4	5000	45	P	
51	**V**	1	**48.780**	ug/l	48.78	1.2	5000	45	P	
52	**Cr**	1	**48.750**	ug/l	48.75	1.1	5000	45	P	
55	**Mn**	1	**50.650**	ug/l	50.65	1.2	5000	45	P	
57	**Fe**	1	**4963.000**	ug/l	4,963.00	0.8	500000	74	A	
59	**Co**	1	**49.430**	ug/l	49.43	1.7	5000	45	P	
60	**Ni**	1	**49.110**	ug/l	49.11	0.8	5000	74	P	
63	**Cu**	1	**49.380**	ug/l	49.38	1.1	5000	74	P	
66	**Zn**	1	**50.110**	ug/l	50.11	0.6	5000	74	P	
75	**As**	1	**49.300**	ug/l	49.30	1.0	5000	74	P	
78	**Se**	1	**48.840**	ug/l	48.84	0.3	5000	74	P	
88	**Sr**	1	**50.270**	ug/l	50.27	0.8	5000	74	P	
95	**Mo**	1	**49.040**	ug/l	49.04	0.5	5000	103	P	
109	**Ag**	1	**48.690**	ug/l	48.69	0.3	200	103	P	
111	**Cd**	1	**50.260**	ug/l	50.26	0.9	5000	103	P	
118	**Sn**	1	**51.100**	ug/l	51.10	0.9	5000	103	P	
123	**Sb**	1	**50.910**	ug/l	50.91	1.4	5000	103	P	
135	**Ba**	1	**51.780**	ug/l	51.78	0.8	5000	103	P	
200	**Hg**	1	**2.437**	ug/l	2.44	2.3	50	209	P	
205	**Tl**	1	**49.640**	ug/l	49.64	2.5	5000	103	P	
208	**Pb**	1	**49.540**	ug/l	49.54	1.0	5000	209	P	
238	**U**	1	**49.760**	ug/l	49.76	1.8	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	128340	0.79	174500	**73.5**	30	-	125	
45	Sc	1	1805628	1.41	2091000	**86.4**	30	-	125	
74	Ge	1	4022021	0.85	4536000	**88.7**	30	-	125	
103	Rh	1	5354261	0.32	6076000	**88.1**	30	-	125	
165	Ho	1	2442519	0.43	2580000	**94.7**	30	-	125	
175	Lu	1	2049266	2.21	2136000	**95.9**	30	-	125	
209	Bi	1	2457804	0.62	2616000	**94.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\183SMPL.D\183SMPL.D#
Date Acquired: Sep 27 2011 09:15 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	985.1	5000	6	P	
23	**Na**	1	**-7.457**	ug/l	-7.46	2.5	500000	45	P	
24	**Mg**	1	**0.079**	ug/l	0.08	59.7	500000	45	P	
27	**Al**	1	**-0.309**	ug/l	-0.31	63.3	500000	45	P	
31	**P**	1	**-7.448**	ug/l	-7.45	22.1	500000	45	P	
39	**K**	1	**-1.480**	ug/l	-1.48	71.3	500000	45	P	
44	**Ca**	1	**-1.674**	ug/l	-1.67	24.1	500000	45	P	
47	**Ti**	1	**0.072**	ug/l	0.07	21.0	5000	45	P	
51	**V**	1	**-0.008**	ug/l	-0.01	194.4	5000	45	P	
52	**Cr**	1	**0.140**	ug/l	0.14	1.8	5000	45	P	
55	**Mn**	1	**0.027**	ug/l	0.03	50.2	5000	45	P	
57	**Fe**	1	**2.695**	ug/l	2.70	24.3	500000	74	P	
59	**Co**	1	**0.003**	ug/l	0.00	50.5	5000	45	P	
60	**Ni**	1	**0.019**	ug/l	0.02	19.7	5000	74	P	
63	**Cu**	1	**-0.005**	ug/l	0.00	424.3	5000	74	P	
66	**Zn**	1	**-0.055**	ug/l	-0.05	102.8	5000	74	P	
75	**As**	1	**0.004**	ug/l	0.00	315.8	5000	74	P	
78	**Se**	1	**0.136**	ug/l	0.14	32.0	5000	74	P	
88	**Sr**	1	**-0.009**	ug/l	-0.01	37.1	5000	74	P	
95	**Mo**	1	**0.120**	ug/l	0.12	35.8	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	156.0	200	103	P	
111	**Cd**	1	**0.008**	ug/l	0.01	31.5	5000	103	P	
118	**Sn**	1	**0.381**	ug/l	0.38	18.2	5000	103	P	
123	**Sb**	1	**0.084**	ug/l	0.08	25.9	5000	103	P	
135	**Ba**	1	**0.017**	ug/l	0.02	34.6	5000	103	P	
200	**Hg**	1	**0.034**	ug/l	0.03	14.3	50	209	P	
205	**Tl**	1	**0.550**	ug/l	0.55	10.5	5000	103	P	
208	**Pb**	1	**-0.008**	ug/l	-0.01	73.0	5000	209	P	
238	**U**	1	**0.011**	ug/l	0.01	10.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	130429	0.88	174500	**74.7**	30 - 125	
45	Sc	1	1799434	1.11	2091000	**86.1**	30 - 125	
74	Ge	1	4013559	0.39	4536000	**88.5**	30 - 125	
103	Rh	1	5442443	1.24	6076000	**89.6**	30 - 125	
165	Ho	1	2462401	1.02	2580000	**95.4**	30 - 125	
175	Lu	1	2096134	2.36	2136000	**98.1**	30 - 125	
209	Bi	1	2540453	2.39	2616000	**97.1**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\184SMPL.D\184SMPL.D#
Date Acquired: Sep 27 2011 09:19 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-2-A Vial Number: 2201
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.542**	ug/l	5.42	4.4	5000	6	P	
23	**Na**	1	**119.200**	ug/l	1,192.00	2.9	500000	45	P	
24	**Mg**	1	**3770.000**	ug/l	37,700.00	1.5	500000	45	A	
27	**Al**	1	**28580.000**	ug/l	285,800.00	2.6	500000	45	A	
31	**P**	1	**1791.000**	ug/l	17,910.00	2.9	500000	45	P	
39	**K**	1	**294.700**	ug/l	2,947.00	3.6	500000	45	P	
44	**Ca**	1	**1994.000**	ug/l	19,940.00	2.4	500000	45	P	
47	**Ti**	1	**915.600**	ug/l	9,156.00	2.4	5000	45	P	
51	**V**	1	**56.350**	ug/l	563.50	2.4	5000	45	P	
52	**Cr**	1	**36.800**	ug/l	368.00	2.9	5000	45	P	
55	**Mn**	1	**614.500**	ug/l	6,145.00	1.9	5000	45	A	
57	**Fe**	1	**25330.000**	ug/l	253,300.00	0.8	500000	74	A	
59	**Co**	1	**10.820**	ug/l	108.20	2.7	5000	45	P	
60	**Ni**	1	**46.810**	ug/l	468.10	0.8	5000	74	P	
63	**Cu**	1	**43.200**	ug/l	432.00	1.0	5000	74	P	
66	**Zn**	1	**111.100**	ug/l	1,111.00	0.6	5000	74	P	
75	**As**	1	**191.800**	ug/l	1,918.00	0.5	5000	74	P	
78	**Se**	1	**1.063**	ug/l	10.63	8.1	5000	74	P	
88	**Sr**	1	**28.040**	ug/l	280.40	0.7	5000	74	P	
95	**Mo**	1	**0.619**	ug/l	6.19	7.0	5000	103	P	
109	**Ag**	1	**0.855**	ug/l	8.55	1.2	200	103	P	
111	**Cd**	1	**4.342**	ug/l	43.42	1.4	5000	103	P	
118	**Sn**	1	**2.489**	ug/l	24.89	2.5	5000	103	P	
123	**Sb**	1	**4.177**	ug/l	41.77	0.7	5000	103	P	
135	**Ba**	1	**228.800**	ug/l	2,288.00	1.3	5000	103	P	
200	**Hg**	1	**0.512**	ug/l	5.12	3.6	50	209	P	
205	**Tl**	1	**0.385**	ug/l	3.85	6.5	5000	103	P	
208	**Pb**	1	**178.100**	ug/l	1,781.00	1.2	5000	209	A	
238	**U**	1	**0.477**	ug/l	4.77	0.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131200	1.50	174500	**75.2**	30	-	125	
45	Sc	1	1829404	1.70	2091000	**87.5**	30	-	125	
74	Ge	1	4000373	0.99	4536000	**88.2**	30	-	125	
103	Rh	1	5279348	0.85	6076000	**86.9**	30	-	125	
165	Ho	1	2462754	0.82	2580000	**95.5**	30	-	125	
175	Lu	1	2069389	0.94	2136000	**96.9**	30	-	125	
209	Bi	1	2415941	0.46	2616000	**92.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\185SMPL.D\185SMPL.D#
Date Acquired: Sep 27 2011 09:23 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-3-A Vial Number: 2202
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.557**	ug/l	5.57	6.1	5000	6	P	
23	**Na**	1	**85.120**	ug/l	851.20	9.3	500000	45	P	
24	**Mg**	1	**3772.000**	ug/l	37,720.00	2.8	500000	45	A	
27	**Al**	1	**26560.000**	ug/l	265,600.00	2.8	500000	45	A	
31	**P**	1	**922.000**	ug/l	9,220.00	4.2	500000	45	P	
39	**K**	1	**373.500**	ug/l	3,735.00	2.5	500000	45	P	
44	**Ca**	1	**2567.000**	ug/l	25,670.00	2.3	500000	45	P	
47	**Ti**	1	**1101.000**	ug/l	11,010.00	2.6	5000	45	P	
51	**V**	1	**56.650**	ug/l	566.50	2.7	5000	45	P	
52	**Cr**	1	**32.980**	ug/l	329.80	3.3	5000	45	P	
55	**Mn**	1	**699.200**	ug/l	6,992.00	3.7	5000	45	A	
57	**Fe**	1	**23740.000**	ug/l	237,400.00	0.4	500000	74	A	
59	**Co**	1	**11.190**	ug/l	111.90	3.1	5000	45	P	
60	**Ni**	1	**44.720**	ug/l	447.20	2.0	5000	74	P	
63	**Cu**	1	**36.420**	ug/l	364.20	2.1	5000	74	P	
66	**Zn**	1	**128.300**	ug/l	1,283.00	1.4	5000	74	P	
75	**As**	1	**142.500**	ug/l	1,425.00	1.6	5000	74	P	
78	**Se**	1	**1.235**	ug/l	12.35	7.2	5000	74	P	
88	**Sr**	1	**29.830**	ug/l	298.30	1.1	5000	74	P	
95	**Mo**	1	**0.759**	ug/l	7.59	5.6	5000	103	P	
109	**Ag**	1	**0.791**	ug/l	7.91	2.9	200	103	P	
111	**Cd**	1	**2.261**	ug/l	22.61	2.6	5000	103	P	
118	**Sn**	1	**2.076**	ug/l	20.76	1.4	5000	103	P	
123	**Sb**	1	**3.106**	ug/l	31.06	3.8	5000	103	P	
135	**Ba**	1	**203.000**	ug/l	2,030.00	1.4	5000	103	P	
200	**Hg**	1	**0.435**	ug/l	4.35	3.8	50	209	P	
205	**Tl**	1	**0.317**	ug/l	3.17	7.3	5000	103	P	
208	**Pb**	1	**173.200**	ug/l	1,732.00	2.5	5000	209	A	
238	**U**	1	**0.566**	ug/l	5.66	2.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129813	0.73	174500	**74.4**	30	-	125	
45	Sc	1	1825795	2.65	2091000	**87.3**	30	-	125	
74	Ge	1	3975142	1.09	4536000	**87.6**	30	-	125	
103	Rh	1	5279670	1.49	6076000	**86.9**	30	-	125	
165	Ho	1	2417604	1.19	2580000	**93.7**	30	-	125	
175	Lu	1	2043679	1.22	2136000	**95.7**	30	-	125	
209	Bi	1	2433815	1.66	2616000	**93.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\186SMPL.D\186SMPL.D#
Date Acquired: Sep 27 2011 09:28 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-4-A Vial Number: 2203
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.471**	ug/l	4.71	5.1	5000	6	P	
23	**Na**	1	**129.000**	ug/l	1,290.00	2.7	500000	45	P	
24	**Mg**	1	**5833.000**	ug/l	58,330.00	0.7	500000	45	A	
27	**Al**	1	**24360.000**	ug/l	243,600.00	0.3	500000	45	A	
31	**P**	1	**1172.000**	ug/l	11,720.00	1.8	500000	45	P	
39	**K**	1	**703.000**	ug/l	7,030.00	0.5	500000	45	A	
44	**Ca**	1	**5691.000**	ug/l	56,910.00	0.8	500000	45	P	
47	**Ti**	1	**1028.000**	ug/l	10,280.00	1.3	5000	45	P	
51	**V**	1	**58.330**	ug/l	583.30	1.7	5000	45	P	
52	**Cr**	1	**47.790**	ug/l	477.90	2.3	5000	45	P	
55	**Mn**	1	**902.000**	ug/l	9,020.00	0.6	5000	45	A	
57	**Fe**	1	**26790.000**	ug/l	267,900.00	0.3	500000	74	A	
59	**Co**	1	**12.620**	ug/l	126.20	2.5	5000	45	P	
60	**Ni**	1	**58.300**	ug/l	583.00	1.0	5000	74	P	
63	**Cu**	1	**55.080**	ug/l	550.80	2.0	5000	74	P	
66	**Zn**	1	**292.800**	ug/l	2,928.00	1.1	5000	74	P	
75	**As**	1	**65.050**	ug/l	650.50	0.8	5000	74	P	
78	**Se**	1	**1.005**	ug/l	10.05	9.8	5000	74	P	
88	**Sr**	1	**54.760**	ug/l	547.60	1.0	5000	74	P	
95	**Mo**	1	**1.342**	ug/l	13.42	6.5	5000	103	P	
109	**Ag**	1	**0.579**	ug/l	5.79	2.1	200	103	P	
111	**Cd**	1	**1.245**	ug/l	12.45	2.0	5000	103	P	
118	**Sn**	1	**18.860**	ug/l	188.60	3.4	5000	103	P	
123	**Sb**	1	**2.334**	ug/l	23.34	0.8	5000	103	P	
135	**Ba**	1	**244.700**	ug/l	2,447.00	1.8	5000	103	P	
200	**Hg**	1	**0.384**	ug/l	3.84	3.0	50	209	P	
205	**Tl**	1	**0.258**	ug/l	2.58	8.5	5000	103	P	
208	**Pb**	1	**200.300**	ug/l	2,003.00	1.2	5000	209	A	
238	**U**	1	**0.503**	ug/l	5.03	2.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131517	0.47	174500	**75.4**	30	-	125	
45	Sc	1	1829340	1.63	2091000	**87.5**	30	-	125	
74	Ge	1	3985553	1.01	4536000	**87.9**	30	-	125	
103	Rh	1	5239671	1.29	6076000	**86.2**	30	-	125	
165	Ho	1	2436865	0.67	2580000	**94.5**	30	-	125	
175	Lu	1	2022891	1.61	2136000	**94.7**	30	-	125	
209	Bi	1	2390170	1.14	2616000	**91.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\187SMPL.D\187SMPL.D#
Date Acquired: Sep 27 2011 09:32 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-5-A Vial Number: 2204
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.667**	ug/l	6.67	6.7	5000	6	P	
23	**Na**	1	**248.600**	ug/l	2,486.00	1.7	500000	45	P	
24	**Mg**	1	**9313.000**	ug/l	93,130.00	0.8	500000	45	A	
27	**Al**	1	**24550.000**	ug/l	245,500.00	1.4	500000	45	A	
31	**P**	1	**967.200**	ug/l	9,672.00	2.7	500000	45	P	
39	**K**	1	**1493.000**	ug/l	14,930.00	2.1	500000	45	A	
44	**Ca**	1	**6423.000**	ug/l	64,230.00	1.6	500000	45	P	
47	**Ti**	1	**667.500**	ug/l	6,675.00	2.0	5000	45	P	
51	**V**	1	**74.100**	ug/l	741.00	2.1	5000	45	P	
52	**Cr**	1	**64.580**	ug/l	645.80	1.7	5000	45	P	
55	**Mn**	1	**872.000**	ug/l	8,720.00	0.4	5000	45	A	
57	**Fe**	1	**38830.000**	ug/l	388,300.00	0.7	500000	74	A	
59	**Co**	1	**17.650**	ug/l	176.50	2.0	5000	45	P	
60	**Ni**	1	**70.850**	ug/l	708.50	2.7	5000	74	P	
63	**Cu**	1	**56.170**	ug/l	561.70	1.7	5000	74	P	
66	**Zn**	1	**284.700**	ug/l	2,847.00	1.8	5000	74	P	
75	**As**	1	**47.710**	ug/l	477.10	1.2	5000	74	P	
78	**Se**	1	**1.127**	ug/l	11.27	2.4	5000	74	P	
88	**Sr**	1	**38.820**	ug/l	388.20	1.0	5000	74	P	
95	**Mo**	1	**1.576**	ug/l	15.76	7.6	5000	103	P	
109	**Ag**	1	**0.248**	ug/l	2.48	2.3	200	103	P	
111	**Cd**	1	**0.802**	ug/l	8.02	2.4	5000	103	P	
118	**Sn**	1	**2.662**	ug/l	26.62	1.0	5000	103	P	
123	**Sb**	1	**1.354**	ug/l	13.54	3.1	5000	103	P	
135	**Ba**	1	**150.300**	ug/l	1,503.00	1.6	5000	103	P	
200	**Hg**	1	**0.160**	ug/l	1.60	9.2	50	209	P	
205	**Tl**	1	**0.378**	ug/l	3.78	4.0	5000	103	P	
208	**Pb**	1	**79.570**	ug/l	795.70	2.4	5000	209	A	
238	**U**	1	**0.569**	ug/l	5.69	1.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129917	1.51	174500	**74.5**	30	-	125	
45	Sc	1	1829045	0.83	2091000	**87.5**	30	-	125	
74	Ge	1	3923081	0.56	4536000	**86.5**	30	-	125	
103	Rh	1	5180275	0.83	6076000	**85.3**	30	-	125	
165	Ho	1	2399309	0.11	2580000	**93.0**	30	-	125	
175	Lu	1	1977867	2.34	2136000	**92.6**	30	-	125	
209	Bi	1	2355123	1.18	2616000	**90.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\188SMPL.D\188SMPL.D#
Date Acquired: Sep 27 2011 09:36 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28646-A-6-A Vial Number: 2205
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.406**	ug/l	4.06	7.3	5000	6	P	
23	**Na**	1	**127.000**	ug/l	1,270.00	5.5	500000	45	P	
24	**Mg**	1	**10690.000**	ug/l	106,900.00	3.8	500000	45	A	
27	**Al**	1	**18570.000**	ug/l	185,700.00	2.8	500000	45	A	
31	**P**	1	**1482.000**	ug/l	14,820.00	1.6	500000	45	P	
39	**K**	1	**1964.000**	ug/l	19,640.00	1.5	500000	45	A	
44	**Ca**	1	**6495.000**	ug/l	64,950.00	1.9	500000	45	P	
47	**Ti**	1	**771.500**	ug/l	7,715.00	2.5	5000	45	P	
51	**V**	1	**64.670**	ug/l	646.70	3.0	5000	45	P	
52	**Cr**	1	**54.440**	ug/l	544.40	3.0	5000	45	P	
55	**Mn**	1	**726.800**	ug/l	7,268.00	2.2	5000	45	A	
57	**Fe**	1	**33060.000**	ug/l	330,600.00	1.3	500000	74	A	
59	**Co**	1	**14.630**	ug/l	146.30	2.9	5000	45	P	
60	**Ni**	1	**68.130**	ug/l	681.30	1.2	5000	74	P	
63	**Cu**	1	**53.270**	ug/l	532.70	1.9	5000	74	P	
66	**Zn**	1	**127.500**	ug/l	1,275.00	1.6	5000	74	P	
75	**As**	1	**9.468**	ug/l	94.68	3.7	5000	74	P	
78	**Se**	1	**0.737**	ug/l	7.37	16.5	5000	74	P	
88	**Sr**	1	**38.420**	ug/l	384.20	0.8	5000	74	P	
95	**Mo**	1	**0.965**	ug/l	9.65	6.6	5000	103	P	
109	**Ag**	1	**0.145**	ug/l	1.45	5.2	200	103	P	
111	**Cd**	1	**0.435**	ug/l	4.35	7.4	5000	103	P	
118	**Sn**	1	**1.205**	ug/l	12.05	0.5	5000	103	P	
123	**Sb**	1	**0.463**	ug/l	4.63	3.8	5000	103	P	
135	**Ba**	1	**131.300**	ug/l	1,313.00	1.0	5000	103	P	
200	**Hg**	1	**0.139**	ug/l	1.39	10.4	50	209	P	
205	**Tl**	1	**0.185**	ug/l	1.85	6.3	5000	103	P	
208	**Pb**	1	**24.410**	ug/l	244.10	2.7	5000	209	P	
238	**U**	1	**0.405**	ug/l	4.05	4.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	128378	0.87	174500	**73.6**	30	-	125	
45	Sc	1	1819521	2.14	2091000	**87.0**	30	-	125	
74	Ge	1	3963297	0.65	4536000	**87.4**	30	-	125	
103	Rh	1	5195995	0.62	6076000	**85.5**	30	-	125	
165	Ho	1	2393338	0.69	2580000	**92.8**	30	-	125	
175	Lu	1	2010015	0.84	2136000	**94.1**	30	-	125	
209	Bi	1	2364446	1.39	2616000	**90.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\189SMPL.D\189SMPL.D#
Date Acquired: Sep 27 2011 09:41 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28761-B-1-A Vial Number: 2206
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.215**	ug/l	2.15	13.3	5000	6	P	
23	**Na**	1	**339.100**	ug/l	3,391.00	5.0	500000	45	A	
24	**Mg**	1	**4666.000**	ug/l	46,660.00	4.1	500000	45	A	
27	**Al**	1	**8889.000**	ug/l	88,890.00	3.6	500000	45	A	
31	**P**	1	**1333.000**	ug/l	13,330.00	3.1	500000	45	P	
39	**K**	1	**885.600**	ug/l	8,856.00	2.5	500000	45	A	
44	**Ca**	1	**4736.000**	ug/l	47,360.00	2.4	500000	45	P	
47	**Ti**	1	**352.700**	ug/l	3,527.00	3.4	5000	45	P	
51	**V**	1	**37.080**	ug/l	370.80	2.8	5000	45	P	
52	**Cr**	1	**25.050**	ug/l	250.50	3.1	5000	45	P	
55	**Mn**	1	**365.600**	ug/l	3,656.00	2.7	5000	45	A	
57	**Fe**	1	**18360.000**	ug/l	183,600.00	1.4	500000	74	A	
59	**Co**	1	**9.116**	ug/l	91.16	3.8	5000	45	P	
60	**Ni**	1	**24.710**	ug/l	247.10	2.3	5000	74	P	
63	**Cu**	1	**39.000**	ug/l	390.00	1.8	5000	74	P	
66	**Zn**	1	**56.280**	ug/l	562.80	2.8	5000	74	P	
75	**As**	1	**9.923**	ug/l	99.23	2.4	5000	74	P	
78	**Se**	1	**0.685**	ug/l	6.85	7.8	5000	74	P	
88	**Sr**	1	**93.340**	ug/l	933.40	2.4	5000	74	P	
95	**Mo**	1	**5.139**	ug/l	51.39	2.8	5000	103	P	
109	**Ag**	1	**0.139**	ug/l	1.39	2.4	200	103	P	
111	**Cd**	1	**0.216**	ug/l	2.16	2.6	5000	103	P	
118	**Sn**	1	**0.477**	ug/l	4.77	2.7	5000	103	P	
123	**Sb**	1	**1.469**	ug/l	14.69	2.0	5000	103	P	
135	**Ba**	1	**469.500**	ug/l	4,695.00	1.0	5000	103	P	
200	**Hg**	1	**0.064**	ug/l	0.64	4.8	50	209	P	
205	**Tl**	1	**0.172**	ug/l	1.72	6.9	5000	103	P	
208	**Pb**	1	**11.940**	ug/l	119.40	2.9	5000	209	P	
238	**U**	1	**1.508**	ug/l	15.08	1.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130644	1.20	174500	**74.9**	30	-	125	
45	Sc	1	1818421	3.09	2091000	**87.0**	30	-	125	
74	Ge	1	3994300	1.43	4536000	**88.1**	30	-	125	
103	Rh	1	5269406	0.56	6076000	**86.7**	30	-	125	
165	Ho	1	2411125	0.82	2580000	**93.5**	30	-	125	
175	Lu	1	2020509	1.71	2136000	**94.6**	30	-	125	
209	Bi	1	2398451	1.84	2616000	**91.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\190SMPL.D\190SMPL.D#
Date Acquired: Sep 27 2011 09:45 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28761-B-2-A Vial Number: 2207
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.322**	ug/l	3.22	8.7	5000	6	P	
23	**Na**	1	**468.400**	ug/l	4,684.00	1.4	500000	45	A	
24	**Mg**	1	**9798.000**	ug/l	97,980.00	0.9	500000	45	A	
27	**Al**	1	**14470.000**	ug/l	144,700.00	0.5	500000	45	A	
31	**P**	1	**1452.000**	ug/l	14,520.00	0.6	500000	45	P	
39	**K**	1	**1625.000**	ug/l	16,250.00	3.3	500000	45	A	
44	**Ca**	1	**9198.000**	ug/l	91,980.00	1.2	500000	45	P	
47	**Ti**	1	**752.700**	ug/l	7,527.00	1.2	5000	45	P	
51	**V**	1	**64.350**	ug/l	643.50	1.2	5000	45	P	
52	**Cr**	1	**45.090**	ug/l	450.90	1.7	5000	45	P	
55	**Mn**	1	**643.000**	ug/l	6,430.00	1.0	5000	45	A	
57	**Fe**	1	**35850.000**	ug/l	358,500.00	1.3	500000	74	A	
59	**Co**	1	**17.580**	ug/l	175.80	1.9	5000	45	P	
60	**Ni**	1	**45.730**	ug/l	457.30	1.8	5000	74	P	
63	**Cu**	1	**54.050**	ug/l	540.50	2.5	5000	74	P	
66	**Zn**	1	**99.690**	ug/l	996.90	1.9	5000	74	P	
75	**As**	1	**18.290**	ug/l	182.90	1.7	5000	74	P	
78	**Se**	1	**1.063**	ug/l	10.63	9.5	5000	74	P	
88	**Sr**	1	**53.130**	ug/l	531.30	1.7	5000	74	P	
95	**Mo**	1	**6.708**	ug/l	67.08	1.5	5000	103	P	
109	**Ag**	1	**0.130**	ug/l	1.30	11.2	200	103	P	
111	**Cd**	1	**0.492**	ug/l	4.92	11.5	5000	103	P	
118	**Sn**	1	**0.560**	ug/l	5.60	6.4	5000	103	P	
123	**Sb**	1	**0.814**	ug/l	8.14	5.5	5000	103	P	
135	**Ba**	1	**361.900**	ug/l	3,619.00	1.4	5000	103	P	
200	**Hg**	1	**0.068**	ug/l	0.68	8.9	50	209	P	
205	**Tl**	1	**0.213**	ug/l	2.13	1.0	5000	103	P	
208	**Pb**	1	**46.250**	ug/l	462.50	1.9	5000	209	P	
238	**U**	1	**1.067**	ug/l	10.67	3.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130465	2.80	174500	**74.8**	30	-	125	
45	Sc	1	1803659	1.35	2091000	**86.3**	30	-	125	
74	Ge	1	3966355	1.50	4536000	**87.4**	30	-	125	
103	Rh	1	5247186	0.96	6076000	**86.4**	30	-	125	
165	Ho	1	2411582	1.31	2580000	**93.5**	30	-	125	
175	Lu	1	2043928	1.49	2136000	**95.7**	30	-	125	
209	Bi	1	2348311	0.75	2616000	**89.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\191SMPL.D\191SMPL.D#
Date Acquired: Sep 27 2011 09:49 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28761-B-3-A Vial Number: 2208
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.269**	ug/l	2.69	1.1	5000	6	P	
23	**Na**	1	**439.100**	ug/l	4,391.00	4.2	500000	45	A	
24	**Mg**	1	**8998.000**	ug/l	89,980.00	2.4	500000	45	A	
27	**Al**	1	**12900.000**	ug/l	129,000.00	0.6	500000	45	A	
31	**P**	1	**1119.000**	ug/l	11,190.00	2.2	500000	45	P	
39	**K**	1	**1401.000**	ug/l	14,010.00	2.5	500000	45	A	
44	**Ca**	1	**9350.000**	ug/l	93,500.00	1.4	500000	45	P	
47	**Ti**	1	**724.400**	ug/l	7,244.00	1.9	5000	45	P	
51	**V**	1	**59.160**	ug/l	591.60	2.0	5000	45	P	
52	**Cr**	1	**29.980**	ug/l	299.80	1.9	5000	45	P	
55	**Mn**	1	**633.100**	ug/l	6,331.00	2.1	5000	45	A	
57	**Fe**	1	**32650.000**	ug/l	326,500.00	0.7	500000	74	A	
59	**Co**	1	**15.690**	ug/l	156.90	1.5	5000	45	P	
60	**Ni**	1	**40.630**	ug/l	406.30	2.4	5000	74	P	
63	**Cu**	1	**49.190**	ug/l	491.90	1.6	5000	74	P	
66	**Zn**	1	**87.420**	ug/l	874.20	2.1	5000	74	P	
75	**As**	1	**16.860**	ug/l	168.60	1.4	5000	74	P	
78	**Se**	1	**0.827**	ug/l	8.27	11.3	5000	74	P	
88	**Sr**	1	**46.330**	ug/l	463.30	1.0	5000	74	P	
95	**Mo**	1	**1.584**	ug/l	15.84	0.3	5000	103	P	
109	**Ag**	1	**0.104**	ug/l	1.04	3.2	200	103	P	
111	**Cd**	1	**0.312**	ug/l	3.12	7.0	5000	103	P	
118	**Sn**	1	**0.409**	ug/l	4.09	11.1	5000	103	P	
123	**Sb**	1	**0.665**	ug/l	6.65	4.3	5000	103	P	
135	**Ba**	1	**183.300**	ug/l	1,833.00	1.4	5000	103	P	
200	**Hg**	1	**0.050**	ug/l	0.50	13.0	50	209	P	
205	**Tl**	1	**0.168**	ug/l	1.68	7.8	5000	103	P	
208	**Pb**	1	**19.880**	ug/l	198.80	2.0	5000	209	P	
238	**U**	1	**0.980**	ug/l	9.80	3.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129489	0.19	174500	**74.2**	30	-	125	
45	Sc	1	1802970	1.75	2091000	**86.2**	30	-	125	
74	Ge	1	3925826	1.01	4536000	**86.5**	30	-	125	
103	Rh	1	5226702	0.74	6076000	**86.0**	30	-	125	
165	Ho	1	2432755	0.58	2580000	**94.3**	30	-	125	
175	Lu	1	2011841	1.18	2136000	**94.2**	30	-	125	
209	Bi	1	2371458	1.12	2616000	**90.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\192SMPL.D\192SMPL.D#
Date Acquired: Sep 27 2011 09:54 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28761-B-4-A Vial Number: 2209
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.346**	ug/l	3.46	10.8	5000	6	P	
23	**Na**	1	**608.200**	ug/l	6,082.00	2.3	500000	45	A	
24	**Mg**	1	**11490.000**	ug/l	114,900.00	2.0	500000	45	A	
27	**Al**	1	**16080.000**	ug/l	160,800.00	3.1	500000	45	A	
31	**P**	1	**1669.000**	ug/l	16,690.00	2.4	500000	45	P	
39	**K**	1	**1703.000**	ug/l	17,030.00	2.6	500000	45	A	
44	**Ca**	1	**19090.000**	ug/l	190,900.00	1.0	500000	45	A	
47	**Ti**	1	**881.300**	ug/l	8,813.00	1.8	5000	45	P	
51	**V**	1	**74.810**	ug/l	748.10	2.5	5000	45	P	
52	**Cr**	1	**35.860**	ug/l	358.60	2.4	5000	45	P	
55	**Mn**	1	**815.800**	ug/l	8,158.00	1.2	5000	45	A	
57	**Fe**	1	**41380.000**	ug/l	413,800.00	0.6	500000	74	A	
59	**Co**	1	**20.010**	ug/l	200.10	2.1	5000	45	P	
60	**Ni**	1	**52.050**	ug/l	520.50	0.5	5000	74	P	
63	**Cu**	1	**72.360**	ug/l	723.60	1.4	5000	74	P	
66	**Zn**	1	**105.900**	ug/l	1,059.00	1.4	5000	74	P	
75	**As**	1	**23.750**	ug/l	237.50	0.8	5000	74	P	
78	**Se**	1	**1.219**	ug/l	12.19	9.1	5000	74	P	
88	**Sr**	1	**81.790**	ug/l	817.90	0.7	5000	74	P	
95	**Mo**	1	**1.957**	ug/l	19.57	3.6	5000	103	P	
109	**Ag**	1	**0.150**	ug/l	1.50	2.9	200	103	P	
111	**Cd**	1	**0.425**	ug/l	4.25	9.3	5000	103	P	
118	**Sn**	1	**0.461**	ug/l	4.61	6.3	5000	103	P	
123	**Sb**	1	**0.848**	ug/l	8.48	0.5	5000	103	P	
135	**Ba**	1	**232.400**	ug/l	2,324.00	0.9	5000	103	P	
200	**Hg**	1	**0.058**	ug/l	0.58	10.2	50	209	P	
205	**Tl**	1	**0.196**	ug/l	1.96	8.0	5000	103	P	
208	**Pb**	1	**17.090**	ug/l	170.90	1.5	5000	209	P	
238	**U**	1	**1.556**	ug/l	15.56	2.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	128969	2.73	174500	**73.9**	30	-	125	
45	Sc	1	1790733	1.43	2091000	**85.6**	30	-	125	
74	Ge	1	3915540	0.08	4536000	**86.3**	30	-	125	
103	Rh	1	5139109	0.24	6076000	**84.6**	30	-	125	
165	Ho	1	2403640	1.13	2580000	**93.2**	30	-	125	
175	Lu	1	2011932	0.62	2136000	**94.2**	30	-	125	
209	Bi	1	2339826	0.37	2616000	**89.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\193SMPL.D\193SMPL.D#
Date Acquired: Sep 27 2011 09:58 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28761-B-5-A Vial Number: 2210
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.309**	ug/l	3.09	11.4	5000	6	P	
23	**Na**	1	**501.800**	ug/l	5,018.00	1.9	500000	45	A	
24	**Mg**	1	**10000.000**	ug/l	100,000.00	1.0	500000	45	A	
27	**Al**	1	**14020.000**	ug/l	140,200.00	0.4	500000	45	A	
31	**P**	1	**1334.000**	ug/l	13,340.00	2.4	500000	45	P	
39	**K**	1	**1367.000**	ug/l	13,670.00	1.7	500000	45	A	
44	**Ca**	1	**15450.000**	ug/l	154,500.00	1.1	500000	45	A	
47	**Ti**	1	**780.800**	ug/l	7,808.00	1.5	5000	45	P	
51	**V**	1	**63.050**	ug/l	630.50	1.9	5000	45	P	
52	**Cr**	1	**30.780**	ug/l	307.80	2.0	5000	45	P	
55	**Mn**	1	**700.900**	ug/l	7,009.00	1.7	5000	45	A	
57	**Fe**	1	**35970.000**	ug/l	359,700.00	0.6	500000	74	A	
59	**Co**	1	**17.660**	ug/l	176.60	1.1	5000	45	P	
60	**Ni**	1	**44.600**	ug/l	446.00	1.9	5000	74	P	
63	**Cu**	1	**63.740**	ug/l	637.40	1.0	5000	74	P	
66	**Zn**	1	**91.910**	ug/l	919.10	1.3	5000	74	P	
75	**As**	1	**20.740**	ug/l	207.40	1.5	5000	74	P	
78	**Se**	1	**1.113**	ug/l	11.13	8.8	5000	74	P	
88	**Sr**	1	**65.050**	ug/l	650.50	0.4	5000	74	P	
95	**Mo**	1	**1.497**	ug/l	14.97	3.1	5000	103	P	
109	**Ag**	1	**0.131**	ug/l	1.31	0.6	200	103	P	
111	**Cd**	1	**0.361**	ug/l	3.61	4.6	5000	103	P	
118	**Sn**	1	**0.402**	ug/l	4.02	1.9	5000	103	P	
123	**Sb**	1	**0.736**	ug/l	7.36	1.6	5000	103	P	
135	**Ba**	1	**195.000**	ug/l	1,950.00	1.2	5000	103	P	
200	**Hg**	1	**0.053**	ug/l	0.53	3.5	50	209	P	
205	**Tl**	1	**0.168**	ug/l	1.68	5.0	5000	103	P	
208	**Pb**	1	**13.890**	ug/l	138.90	1.7	5000	209	P	
238	**U**	1	**1.154**	ug/l	11.54	2.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	127458	1.02	174500	**73.0**	30	-	125	
45	Sc	1	1796484	1.09	2091000	**85.9**	30	-	125	
74	Ge	1	3902837	0.78	4536000	**86.0**	30	-	125	
103	Rh	1	5116168	0.33	6076000	**84.2**	30	-	125	
165	Ho	1	2426644	1.55	2580000	**94.1**	30	-	125	
175	Lu	1	2006664	0.58	2136000	**93.9**	30	-	125	
209	Bi	1	2365419	1.65	2616000	**90.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\194SMPL.D\194SMPL.D#
Date Acquired: Sep 27 2011 10:02 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**51.860**	ug/l	51.86	2.8	5000	6	P	
23	**Na**	1	**4916.000**	ug/l	4,916.00	2.3	500000	45	A	
24	**Mg**	1	**4845.000**	ug/l	4,845.00	1.4	500000	45	A	
27	**Al**	1	**474.100**	ug/l	474.10	1.7	500000	45	P	
31	**P**	1	**4739.000**	ug/l	4,739.00	2.4	500000	45	P	
39	**K**	1	**4963.000**	ug/l	4,963.00	0.7	500000	45	A	
44	**Ca**	1	**4981.000**	ug/l	4,981.00	1.3	500000	45	P	
47	**Ti**	1	**50.490**	ug/l	50.49	2.8	5000	45	P	
51	**V**	1	**49.180**	ug/l	49.18	2.0	5000	45	P	
52	**Cr**	1	**48.880**	ug/l	48.88	1.3	5000	45	P	
55	**Mn**	1	**51.020**	ug/l	51.02	1.5	5000	45	P	
57	**Fe**	1	**4935.000**	ug/l	4,935.00	0.6	500000	74	A	
59	**Co**	1	**49.720**	ug/l	49.72	1.5	5000	45	P	
60	**Ni**	1	**49.230**	ug/l	49.23	2.1	5000	74	P	
63	**Cu**	1	**49.600**	ug/l	49.60	2.2	5000	74	P	
66	**Zn**	1	**50.030**	ug/l	50.03	1.1	5000	74	P	
75	**As**	1	**49.480**	ug/l	49.48	1.7	5000	74	P	
78	**Se**	1	**49.110**	ug/l	49.11	0.6	5000	74	P	
88	**Sr**	1	**50.550**	ug/l	50.55	1.7	5000	74	P	
95	**Mo**	1	**49.190**	ug/l	49.19	1.4	5000	103	P	
109	**Ag**	1	**48.750**	ug/l	48.75	1.3	200	103	P	
111	**Cd**	1	**50.000**	ug/l	50.00	2.3	5000	103	P	
118	**Sn**	1	**50.710**	ug/l	50.71	1.9	5000	103	P	
123	**Sb**	1	**50.880**	ug/l	50.88	2.4	5000	103	P	
135	**Ba**	1	**52.050**	ug/l	52.05	1.2	5000	103	P	
200	**Hg**	1	**2.358**	ug/l	2.36	1.9	50	209	P	
205	**Tl**	1	**49.330**	ug/l	49.33	2.1	5000	103	P	
208	**Pb**	1	**49.070**	ug/l	49.07	1.8	5000	209	P	
238	**U**	1	**49.220**	ug/l	49.22	0.9	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	125851	1.96	174500	**72.1**	30	-	125	
45	Sc	1	1769779	1.42	2091000	**84.6**	30	-	125	
74	Ge	1	3962810	1.01	4536000	**87.4**	30	-	125	
103	Rh	1	5267987	1.00	6076000	**86.7**	30	-	125	
165	Ho	1	2414491	1.61	2580000	**93.6**	30	-	125	
175	Lu	1	2023202	0.78	2136000	**94.7**	30	-	125	
209	Bi	1	2418318	1.58	2616000	**92.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\195SMPL.D\195SMPL.D#
Date Acquired: Sep 27 2011 10:07 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**-0.002**	ug/l	0.00	150.5	5000	6	P	
23	Na	1	**-10.790**	ug/l	-10.79	6.1	500000	45	P	
24	Mg	1	**0.343**	ug/l	0.34	10.1	500000	45	P	
27	Al	1	**-0.308**	ug/l	-0.31	28.5	500000	45	P	
31	P	1	**-6.412**	ug/l	-6.41	13.6	500000	45	P	
39	K	1	**-0.204**	ug/l	-0.20	493.6	500000	45	P	
44	Ca	1	**-1.339**	ug/l	-1.34	49.5	500000	45	P	
47	Ti	1	**0.137**	ug/l	0.14	29.7	5000	45	P	
51	V	1	**-0.010**	ug/l	-0.01	157.8	5000	45	P	
52	Cr	1	**0.168**	ug/l	0.17	11.4	5000	45	P	
55	Mn	1	**0.056**	ug/l	0.06	19.9	5000	45	P	
57	Fe	1	**4.095**	ug/l	4.10	9.6	500000	74	P	
59	Co	1	**0.002**	ug/l	0.00	49.5	5000	45	P	
60	Ni	1	**0.014**	ug/l	0.01	151.6	5000	74	P	
63	Cu	1	**-0.008**	ug/l	-0.01	103.4	5000	74	P	
66	Zn	1	**0.060**	ug/l	0.06	18.1	5000	74	P	
75	As	1	**-0.012**	ug/l	-0.01	134.1	5000	74	P	
78	Se	1	**0.144**	ug/l	0.14	37.3	5000	74	P	
88	Sr	1	**-0.008**	ug/l	-0.01	78.7	5000	74	P	
95	Mo	1	**0.091**	ug/l	0.09	13.4	5000	103	P	
109	Ag	1	**0.002**	ug/l	0.00	98.5	200	103	P	
111	Cd	1	**0.001**	ug/l	0.00	1032.2	5000	103	P	
118	Sn	1	**0.175**	ug/l	0.17	12.4	5000	103	P	
123	Sb	1	**0.040**	ug/l	0.04	28.9	5000	103	P	
135	Ba	1	**0.023**	ug/l	0.02	51.1	5000	103	P	
200	Hg	1	**0.016**	ug/l	0.02	31.9	50	209	P	
205	Tl	1	**0.320**	ug/l	0.32	9.1	5000	103	P	
208	Pb	1	**-0.002**	ug/l	0.00	648.5	5000	209	P	
238	U	1	**0.010**	ug/l	0.01	22.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	126403	0.61	174500	**72.4**	30	-	125	
45	Sc	1	1757128	0.61	2091000	**84.0**	30	-	125	
74	Ge	1	3961192	1.35	4536000	**87.3**	30	-	125	
103	Rh	1	5389625	1.70	6076000	**88.7**	30	-	125	
165	Ho	1	2382413	0.21	2580000	**92.3**	30	-	125	
175	Lu	1	2036904	0.97	2136000	**95.4**	30	-	125	
209	Bi	1	2479690	1.48	2616000	**94.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\196SMPL.D\196SMPL.D#
Date Acquired: Sep 27 2011 10:11 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-96206/20-A Vial Number: 2301
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	-0.03	105.8	5000	6	P	
23	**Na**	1	**-12.790**	ug/l	-63.95	7.5	500000	45	P	
24	**Mg**	1	**0.334**	ug/l	1.67	5.7	500000	45	P	
27	**Al**	1	**0.043**	ug/l	0.22	313.7	500000	45	P	
31	**P**	1	**-7.486**	ug/l	-37.43	7.2	500000	45	P	
39	**K**	1	**-1.684**	ug/l	-8.42	201.3	500000	45	P	
44	**Ca**	1	**-1.695**	ug/l	-8.48	4.5	500000	45	P	
47	**Ti**	1	**0.103**	ug/l	0.52	2.5	5000	45	P	
51	**V**	1	**0.011**	ug/l	0.05	82.0	5000	45	P	
52	**Cr**	1	**0.011**	ug/l	0.05	104.6	5000	45	P	
55	**Mn**	1	**0.071**	ug/l	0.35	6.9	5000	45	P	
57	**Fe**	1	**2.326**	ug/l	11.63	4.9	500000	74	P	
59	**Co**	1	**-0.001**	ug/l	0.00	113.5	5000	45	P	
60	**Ni**	1	**-0.002**	ug/l	-0.01	947.5	5000	74	P	
63	**Cu**	1	**0.036**	ug/l	0.18	38.4	5000	74	P	
66	**Zn**	1	**0.163**	ug/l	0.82	18.6	5000	74	P	
75	**As**	1	**-0.009**	ug/l	-0.05	122.0	5000	74	P	
78	**Se**	1	**0.139**	ug/l	0.70	63.8	5000	74	P	
88	**Sr**	1	**-0.001**	ug/l	0.00	501.1	5000	74	P	
95	**Mo**	1	**0.026**	ug/l	0.13	41.6	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	87.3	200	103	P	
111	**Cd**	1	**0.002**	ug/l	0.01	764.4	5000	103	P	
118	**Sn**	1	**0.091**	ug/l	0.45	33.3	5000	103	P	
123	**Sb**	1	**0.012**	ug/l	0.06	116.9	5000	103	P	
135	**Ba**	1	**0.037**	ug/l	0.18	48.9	5000	103	P	
200	**Hg**	1	**0.012**	ug/l	0.06	24.9	50	209	P	
205	**Tl**	1	**0.121**	ug/l	0.61	18.8	5000	103	P	
208	**Pb**	1	**-0.012**	ug/l	-0.06	95.4	5000	209	P	
238	**U**	1	**0.002**	ug/l	0.01	66.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	127235	1.70	174500	**72.9**	30	-	125	
45	Sc	1	1795567	2.09	2091000	**85.9**	30	-	125	
74	Ge	1	3950936	0.85	4536000	**87.1**	30	-	125	
103	Rh	1	5435130	1.32	6076000	**89.5**	30	-	125	
165	Ho	1	2398619	1.19	2580000	**93.0**	30	-	125	
175	Lu	1	2026700	2.37	2136000	**94.9**	30	-	125	
209	Bi	1	2523213	1.31	2616000	**96.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\197SMPL.D\197SMPL.D#
Date Acquired: Sep 27 2011 10:16 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28673-A-1-A SD Vial Number: 2302
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **25.00** Final Dil Factor: **25.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	-0.08	53.6	5000	6	P	
23	**Na**	1	**78.630**	ug/l	1,965.75	3.3	500000	45	P	
24	**Mg**	1	**56.500**	ug/l	1,412.50	3.1	500000	45	P	
27	**Al**	1	**-4.184**	ug/l	-104.60	2.2	500000	45	P	
31	**P**	1	**-3.451**	ug/l	-86.28	53.6	500000	45	P	
39	**K**	1	**6.992**	ug/l	174.80	38.1	500000	45	P	
44	**Ca**	1	**633.900**	ug/l	15,847.50	1.0	500000	45	P	
47	**Ti**	1	**0.103**	ug/l	2.58	24.1	5000	45	P	
51	**V**	1	**-0.104**	ug/l	-2.61	9.9	5000	45	P	
52	**Cr**	1	**-0.041**	ug/l	-1.03	42.8	5000	45	P	
55	**Mn**	1	**0.908**	ug/l	22.70	4.3	5000	45	P	
57	**Fe**	1	**6.965**	ug/l	174.13	4.8	500000	74	P	
59	**Co**	1	**0.002**	ug/l	0.05	89.5	5000	45	P	
60	**Ni**	1	**-0.038**	ug/l	-0.95	19.3	5000	74	P	
63	**Cu**	1	**0.029**	ug/l	0.73	20.8	5000	74	P	
66	**Zn**	1	**-0.032**	ug/l	-0.80	36.3	5000	74	P	
75	**As**	1	**-0.001**	ug/l	-0.02	1869.9	5000	74	P	
78	**Se**	1	**0.133**	ug/l	3.32	44.3	5000	74	P	
88	**Sr**	1	**4.505**	ug/l	112.63	1.2	5000	74	P	
95	**Mo**	1	**0.026**	ug/l	0.64	20.2	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	2512.5	200	103	P	
111	**Cd**	1	**0.006**	ug/l	0.14	200.0	5000	103	P	
118	**Sn**	1	**0.044**	ug/l	1.09	10.8	5000	103	P	
123	**Sb**	1	**0.009**	ug/l	0.23	83.5	5000	103	P	
135	**Ba**	1	**0.184**	ug/l	4.59	13.3	5000	103	P	
200	**Hg**	1	**0.013**	ug/l	0.33	11.9	50	209	P	
205	**Tl**	1	**0.089**	ug/l	2.23	12.9	5000	103	P	
208	**Pb**	1	**-0.005**	ug/l	-0.11	322.3	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	119.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	130437	0.07	174500	**74.7**	30	-	125	
45	Sc	1	1781674	1.65	2091000	**85.2**	30	-	125	
74	Ge	1	3981433	0.71	4536000	**87.8**	30	-	125	
103	Rh	1	5424805	0.72	6076000	**89.3**	30	-	125	
165	Ho	1	2412476	0.19	2580000	**93.5**	30	-	125	
175	Lu	1	2024341	0.71	2136000	**94.8**	30	-	125	
209	Bi	1	2447739	2.75	2616000	**93.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\198SMPL.D\198SMPL.D#
Date Acquired: Sep 27 2011 10:20 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28673-A-1-A Vial Number: 2303
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.004**	ug/l	-0.02	101.4	5000	6	P	
23	**Na**	1	**455.800**	ug/l	2,279.00	1.9	500000	45	A	
24	**Mg**	1	**282.600**	ug/l	1,413.00	2.7	500000	45	P	
27	**Al**	1	**0.767**	ug/l	3.84	55.5	500000	45	P	
31	**P**	1	**10.080**	ug/l	50.40	17.7	500000	45	P	
39	**K**	1	**34.930**	ug/l	174.65	5.9	500000	45	P	
44	**Ca**	1	**3249.000**	ug/l	16,245.00	1.8	500000	45	P	
47	**Ti**	1	**0.256**	ug/l	1.28	13.4	5000	45	P	
51	**V**	1	**0.317**	ug/l	1.58	14.2	5000	45	P	
52	**Cr**	1	**0.059**	ug/l	0.29	10.0	5000	45	P	
55	**Mn**	1	**4.766**	ug/l	23.83	2.8	5000	45	P	
57	**Fe**	1	**28.770**	ug/l	143.85	3.1	500000	74	P	
59	**Co**	1	**0.011**	ug/l	0.05	13.9	5000	45	P	
60	**Ni**	1	**-0.010**	ug/l	-0.05	97.7	5000	74	P	
63	**Cu**	1	**0.405**	ug/l	2.03	8.5	5000	74	P	
66	**Zn**	1	**0.123**	ug/l	0.61	36.5	5000	74	P	
75	**As**	1	**0.138**	ug/l	0.69	7.9	5000	74	P	
78	**Se**	1	**0.175**	ug/l	0.87	36.8	5000	74	P	
88	**Sr**	1	**22.690**	ug/l	113.45	0.6	5000	74	P	
95	**Mo**	1	**0.056**	ug/l	0.28	17.7	5000	103	P	
109	**Ag**	1	**0.002**	ug/l	0.01	146.1	200	103	P	
111	**Cd**	1	**-0.003**	ug/l	-0.01	125.5	5000	103	P	
118	**Sn**	1	**0.076**	ug/l	0.38	36.2	5000	103	P	
123	**Sb**	1	**0.018**	ug/l	0.09	6.6	5000	103	P	
135	**Ba**	1	**0.920**	ug/l	4.60	2.7	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.03	40.5	50	209	P	
205	**Tl**	1	**0.066**	ug/l	0.33	15.2	5000	103	P	
208	**Pb**	1	**-0.017**	ug/l	-0.08	87.6	5000	209	P	
238	**U**	1	**0.001**	ug/l	0.01	99.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	118183	0.99	174500	**67.7**	30	-	125	
45	Sc	1	1724172	2.30	2091000	**82.5**	30	-	125	
74	Ge	1	3945015	0.27	4536000	**87.0**	30	-	125	
103	Rh	1	5318493	1.21	6076000	**87.5**	30	-	125	
165	Ho	1	2437359	0.81	2580000	**94.5**	30	-	125	
175	Lu	1	2049441	0.64	2136000	**95.9**	30	-	125	
209	Bi	1	2492357	1.08	2616000	**95.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\199SMPL.D\199SMPL.D#
Date Acquired: Sep 27 2011 10:24 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28673-A-1-B DU Vial Number: 2304
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	-0.01	138.0	5000	6	P	
23	**Na**	1	**454.500**	ug/l	2,272.50	0.7	500000	45	A	
24	**Mg**	1	**277.500**	ug/l	1,387.50	1.1	500000	45	P	
27	**Al**	1	**0.492**	ug/l	2.46	156.0	500000	45	P	
31	**P**	1	**9.370**	ug/l	46.85	44.5	500000	45	P	
39	**K**	1	**34.090**	ug/l	170.45	9.1	500000	45	P	
44	**Ca**	1	**3215.000**	ug/l	16,075.00	1.4	500000	45	P	
47	**Ti**	1	**0.334**	ug/l	1.67	38.2	5000	45	P	
51	**V**	1	**0.298**	ug/l	1.49	4.4	5000	45	P	
52	**Cr**	1	**0.040**	ug/l	0.20	33.4	5000	45	P	
55	**Mn**	1	**4.564**	ug/l	22.82	1.7	5000	45	P	
57	**Fe**	1	**29.860**	ug/l	149.30	3.1	500000	74	P	
59	**Co**	1	**0.012**	ug/l	0.06	30.7	5000	45	P	
60	**Ni**	1	**-0.011**	ug/l	-0.05	78.8	5000	74	P	
63	**Cu**	1	**0.400**	ug/l	2.00	3.0	5000	74	P	
66	**Zn**	1	**0.165**	ug/l	0.82	9.6	5000	74	P	
75	**As**	1	**0.128**	ug/l	0.64	14.9	5000	74	P	
78	**Se**	1	**0.207**	ug/l	1.04	32.5	5000	74	P	
88	**Sr**	1	**22.800**	ug/l	114.00	0.4	5000	74	P	
95	**Mo**	1	**0.058**	ug/l	0.29	15.7	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	228.8	200	103	P	
111	**Cd**	1	**0.009**	ug/l	0.04	21.2	5000	103	P	
118	**Sn**	1	**0.047**	ug/l	0.23	24.5	5000	103	P	
123	**Sb**	1	**0.015**	ug/l	0.07	11.1	5000	103	P	
135	**Ba**	1	**0.937**	ug/l	4.69	8.9	5000	103	P	
200	**Hg**	1	**0.003**	ug/l	0.01	57.4	50	209	P	
205	**Tl**	1	**0.052**	ug/l	0.26	21.8	5000	103	P	
208	**Pb**	1	**-0.011**	ug/l	-0.06	109.2	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	92.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	117788	1.53	174500	**67.5**	30	-	125	
45	Sc	1	1741178	1.76	2091000	**83.3**	30	-	125	
74	Ge	1	3905917	0.43	4536000	**86.1**	30	-	125	
103	Rh	1	5302549	0.56	6076000	**87.3**	30	-	125	
165	Ho	1	2414982	1.63	2580000	**93.6**	30	-	125	
175	Lu	1	2029527	1.73	2136000	**95.0**	30	-	125	
209	Bi	1	2481970	0.67	2616000	**94.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\200SMPL.D\200SMPL.D#
Date Acquired: Sep 27 2011 10:29 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28673-A-1-C MS Vial Number: 2305
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.199**	ug/l	109.95	2.4	5000	6	P	
23	**Na**	1	**472.900**	ug/l	23,645.00	1.8	500000	45	A	
24	**Mg**	1	**459.800**	ug/l	22,990.00	1.2	500000	45	P	
27	**Al**	1	**81.430**	ug/l	4,071.50	1.1	500000	45	P	
31	**P**	1	**398.700**	ug/l	19,935.00	1.2	500000	45	P	
39	**K**	1	**443.800**	ug/l	22,190.00	2.3	500000	45	P	
44	**Ca**	1	**742.600**	ug/l	37,130.00	2.0	500000	45	P	
47	**Ti**	1	**106.200**	ug/l	5,310.00	1.6	5000	45	P	
51	**V**	1	**21.430**	ug/l	1,071.50	0.9	5000	45	P	
52	**Cr**	1	**8.652**	ug/l	432.60	1.6	5000	45	P	
55	**Mn**	1	**23.190**	ug/l	1,159.50	1.8	5000	45	P	
57	**Fe**	1	**459.700**	ug/l	22,985.00	2.9	500000	74	P	
59	**Co**	1	**22.060**	ug/l	1,103.00	1.6	5000	45	P	
60	**Ni**	1	**22.190**	ug/l	1,109.50	2.0	5000	74	P	
63	**Cu**	1	**11.450**	ug/l	572.50	0.5	5000	74	P	
66	**Zn**	1	**22.120**	ug/l	1,106.00	1.3	5000	74	P	
75	**As**	1	**89.150**	ug/l	4,457.50	1.0	5000	74	P	
78	**Se**	1	**86.260**	ug/l	4,313.00	1.4	5000	74	P	
88	**Sr**	1	**2.186**	ug/l	109.30	2.9	5000	74	P	
95	**Mo**	1	**105.900**	ug/l	5,295.00	0.7	5000	103	P	
109	**Ag**	1	**12.720**	ug/l	636.00	0.8	200	103	P	
111	**Cd**	1	**2.274**	ug/l	113.70	4.1	5000	103	P	
118	**Sn**	1	**104.200**	ug/l	5,210.00	1.9	5000	103	P	
123	**Sb**	1	**64.420**	ug/l	3,221.00	0.8	5000	103	P	
135	**Ba**	1	**90.650**	ug/l	4,532.50	0.5	5000	103	P	
200	**Hg**	1	**1.046**	ug/l	52.30	3.6	50	209	P	
205	**Tl**	1	**92.400**	ug/l	4,620.00	1.0	5000	103	A	
208	**Pb**	1	**22.250**	ug/l	1,112.50	3.9	5000	209	P	
238	**U**	1	**0.000**	ug/l	-0.01	697.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	131681	1.33	174500	**75.5**	30	-	125	
45	Sc	1	1809043	1.14	2091000	**86.5**	30	-	125	
74	Ge	1	4019911	1.19	4536000	**88.6**	30	-	125	
103	Rh	1	5442650	0.63	6076000	**89.6**	30	-	125	
165	Ho	1	2417096	0.65	2580000	**93.7**	30	-	125	
175	Lu	1	2039018	1.36	2136000	**95.5**	30	-	125	
209	Bi	1	2444303	3.22	2616000	**93.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\201SMPL.D\201SMPL.D#
Date Acquired: Sep 27 2011 10:33 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28673-A-1-D MSD Vial Number: 2306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.335**	ug/l	116.75	5.4	5000	6	P	
23	**Na**	1	**502.200**	ug/l	25,110.00	2.4	500000	45	A	
24	**Mg**	1	**485.800**	ug/l	24,290.00	1.9	500000	45	P	
27	**Al**	1	**85.150**	ug/l	4,257.50	1.9	500000	45	P	
31	**P**	1	**425.900**	ug/l	21,295.00	2.1	500000	45	P	
39	**K**	1	**470.900**	ug/l	23,545.00	1.6	500000	45	P	
44	**Ca**	1	**782.600**	ug/l	39,130.00	0.8	500000	45	P	
47	**Ti**	1	**112.600**	ug/l	5,630.00	1.4	5000	45	P	
51	**V**	1	**22.730**	ug/l	1,136.50	1.2	5000	45	P	
52	**Cr**	1	**9.113**	ug/l	455.65	2.4	5000	45	P	
55	**Mn**	1	**24.300**	ug/l	1,215.00	2.0	5000	45	P	
57	**Fe**	1	**472.400**	ug/l	23,620.00	0.6	500000	74	P	
59	**Co**	1	**23.220**	ug/l	1,161.00	1.8	5000	45	P	
60	**Ni**	1	**22.850**	ug/l	1,142.50	0.4	5000	74	P	
63	**Cu**	1	**11.790**	ug/l	589.50	0.6	5000	74	P	
66	**Zn**	1	**22.750**	ug/l	1,137.50	1.5	5000	74	P	
75	**As**	1	**91.690**	ug/l	4,584.50	0.1	5000	74	P	
78	**Se**	1	**89.280**	ug/l	4,464.00	1.4	5000	74	P	
88	**Sr**	1	**2.233**	ug/l	111.65	2.0	5000	74	P	
95	**Mo**	1	**111.500**	ug/l	5,575.00	1.5	5000	103	P	
109	**Ag**	1	**13.110**	ug/l	655.50	2.7	200	103	P	
111	**Cd**	1	**2.280**	ug/l	114.00	0.8	5000	103	P	
118	**Sn**	1	**110.500**	ug/l	5,525.00	3.0	5000	103	P	
123	**Sb**	1	**67.510**	ug/l	3,375.50	2.0	5000	103	P	
135	**Ba**	1	**95.400**	ug/l	4,770.00	1.6	5000	103	P	
200	**Hg**	1	**1.086**	ug/l	54.30	7.3	50	209	P	
205	**Tl**	1	**97.190**	ug/l	4,859.50	1.5	5000	103	A	
208	**Pb**	1	**23.420**	ug/l	1,171.00	4.7	5000	209	P	
238	**U**	1	**-0.001**	ug/l	-0.04	7.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	133275	1.13	174500	**76.4**	30	-	125	
45	Sc	1	1790839	1.34	2091000	**85.6**	30	-	125	
74	Ge	1	4025423	0.86	4536000	**88.7**	30	-	125	
103	Rh	1	5400104	1.06	6076000	**88.9**	30	-	125	
165	Ho	1	2406124	0.81	2580000	**93.3**	30	-	125	
175	Lu	1	2019973	0.46	2136000	**94.6**	30	-	125	
209	Bi	1	2392226	3.64	2616000	**91.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\202SMPL.D\202SMPL.D#
Date Acquired: Sep 27 2011 10:38 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28673-A-1-A PDS Vial Number: 2307
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.414**	ug/l	120.70	3.8	5000	6	P	
23	**Na**	1	**495.800**	ug/l	24,790.00	0.5	500000	45	A	
24	**Mg**	1	**480.800**	ug/l	24,040.00	2.7	500000	45	P	
27	**Al**	1	**84.250**	ug/l	4,212.50	3.8	500000	45	P	
31	**P**	1	**420.900**	ug/l	21,045.00	1.8	500000	45	P	
39	**K**	1	**467.400**	ug/l	23,370.00	2.8	500000	45	P	
44	**Ca**	1	**777.900**	ug/l	38,895.00	2.5	500000	45	P	
47	**Ti**	1	**112.700**	ug/l	5,635.00	2.4	5000	45	P	
51	**V**	1	**22.470**	ug/l	1,123.50	2.5	5000	45	P	
52	**Cr**	1	**8.944**	ug/l	447.20	3.4	5000	45	P	
55	**Mn**	1	**24.260**	ug/l	1,213.00	2.5	5000	45	P	
57	**Fe**	1	**489.100**	ug/l	24,455.00	1.7	500000	74	P	
59	**Co**	1	**23.200**	ug/l	1,160.00	3.3	5000	45	P	
60	**Ni**	1	**23.700**	ug/l	1,185.00	1.1	5000	74	P	
63	**Cu**	1	**12.070**	ug/l	603.50	0.4	5000	74	P	
66	**Zn**	1	**23.650**	ug/l	1,182.50	1.2	5000	74	P	
75	**As**	1	**94.110**	ug/l	4,705.50	1.2	5000	74	P	
78	**Se**	1	**92.040**	ug/l	4,602.00	0.8	5000	74	P	
88	**Sr**	1	**2.275**	ug/l	113.75	1.5	5000	74	P	
95	**Mo**	1	**113.500**	ug/l	5,675.00	1.8	5000	103	P	
109	**Ag**	1	**13.400**	ug/l	670.00	2.6	200	103	P	
111	**Cd**	1	**2.322**	ug/l	116.10	4.5	5000	103	P	
118	**Sn**	1	**113.400**	ug/l	5,670.00	3.0	5000	103	P	
123	**Sb**	1	**68.900**	ug/l	3,445.00	2.1	5000	103	P	
135	**Ba**	1	**96.430**	ug/l	4,821.50	1.9	5000	103	P	
200	**Hg**	1	**1.091**	ug/l	54.55	5.6	50	209	P	
205	**Tl**	1	**98.440**	ug/l	4,922.00	0.6	5000	103	A	
208	**Pb**	1	**23.590**	ug/l	1,179.50	5.5	5000	209	P	
238	**U**	1	**-0.001**	ug/l	-0.06	12.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	129799	0.59	174500	**74.4**	30	-	125	
45	Sc	1	1811291	2.45	2091000	**86.6**	30	-	125	
74	Ge	1	3973148	1.03	4536000	**87.6**	30	-	125	
103	Rh	1	5359049	1.37	6076000	**88.2**	30	-	125	
165	Ho	1	2409157	0.47	2580000	**93.4**	30	-	125	
175	Lu	1	2028162	1.61	2136000	**95.0**	30	-	125	
209	Bi	1	2408544	4.23	2616000	**92.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\203SMPL.D\203SMPL.D#
Date Acquired: Sep 27 2011 10:42 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-96206/21-A Vial Number: 2308
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.171**	ug/l	108.55	3.4	5000	6	P	
23	**Na**	1	**401.700**	ug/l	20,085.00	2.5	500000	45	A	
24	**Mg**	1	**410.100**	ug/l	20,505.00	3.3	500000	45	P	
27	**Al**	1	**77.040**	ug/l	3,852.00	4.6	500000	45	P	
31	**P**	1	**374.000**	ug/l	18,700.00	2.9	500000	45	P	
39	**K**	1	**417.800**	ug/l	20,890.00	3.7	500000	45	P	
44	**Ca**	1	**416.300**	ug/l	20,815.00	2.4	500000	45	P	
47	**Ti**	1	**101.000**	ug/l	5,050.00	2.9	5000	45	P	
51	**V**	1	**20.500**	ug/l	1,025.00	3.2	5000	45	P	
52	**Cr**	1	**8.223**	ug/l	411.15	3.5	5000	45	P	
55	**Mn**	1	**21.450**	ug/l	1,072.50	3.1	5000	45	P	
57	**Fe**	1	**445.100**	ug/l	22,255.00	1.6	500000	74	P	
59	**Co**	1	**21.000**	ug/l	1,050.00	3.0	5000	45	P	
60	**Ni**	1	**20.860**	ug/l	1,043.00	1.3	5000	74	P	
63	**Cu**	1	**10.690**	ug/l	534.50	0.7	5000	74	P	
66	**Zn**	1	**21.390**	ug/l	1,069.50	0.9	5000	74	P	
75	**As**	1	**84.160**	ug/l	4,208.00	0.4	5000	74	P	
78	**Se**	1	**81.770**	ug/l	4,088.50	1.0	5000	74	P	
88	**Sr**	1	**-0.001**	ug/l	-0.04	1182.4	5000	74	P	
95	**Mo**	1	**102.500**	ug/l	5,125.00	1.1	5000	103	P	
109	**Ag**	1	**12.540**	ug/l	627.00	0.4	200	103	P	
111	**Cd**	1	**2.148**	ug/l	107.40	2.4	5000	103	P	
118	**Sn**	1	**107.300**	ug/l	5,365.00	1.1	5000	103	P	
123	**Sb**	1	**61.510**	ug/l	3,075.50	1.4	5000	103	P	
135	**Ba**	1	**85.270**	ug/l	4,263.50	0.4	5000	103	P	
200	**Hg**	1	**1.010**	ug/l	50.50	3.7	50	209	P	
205	**Tl**	1	**86.620**	ug/l	4,331.00	2.9	5000	103	A	
208	**Pb**	1	**20.700**	ug/l	1,035.00	2.6	5000	209	P	
238	**U**	1	**-0.001**	ug/l	-0.05	59.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	120032	1.17	174500	**68.8**	30	-	125	
45	Sc	1	1744534	2.80	2091000	**83.4**	30	-	125	
74	Ge	1	3881794	0.83	4536000	**85.6**	30	-	125	
103	Rh	1	5292853	0.67	6076000	**87.1**	30	-	125	
165	Ho	1	2406862	0.85	2580000	**93.3**	30	-	125	
175	Lu	1	2022791	1.72	2136000	**94.7**	30	-	125	
209	Bi	1	2442813	2.35	2616000	**93.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\204SMPL.D\204SMPL.D#
Date Acquired: Sep 27 2011 10:46 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-96206/22-A Vial Number: 2309
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.100**	ug/l	105.00	5.7	5000	6	P	
23	**Na**	1	**398.900**	ug/l	19,945.00	1.8	500000	45	A	
24	**Mg**	1	**409.700**	ug/l	20,485.00	2.0	500000	45	P	
27	**Al**	1	**78.100**	ug/l	3,905.00	3.2	500000	45	P	
31	**P**	1	**367.500**	ug/l	18,375.00	0.9	500000	45	P	
39	**K**	1	**421.700**	ug/l	21,085.00	2.5	500000	45	P	
44	**Ca**	1	**414.000**	ug/l	20,700.00	2.1	500000	45	P	
47	**Ti**	1	**100.500**	ug/l	5,025.00	2.6	5000	45	P	
51	**V**	1	**20.570**	ug/l	1,028.50	2.0	5000	45	P	
52	**Cr**	1	**8.186**	ug/l	409.30	3.0	5000	45	P	
55	**Mn**	1	**21.140**	ug/l	1,057.00	2.3	5000	45	P	
57	**Fe**	1	**441.200**	ug/l	22,060.00	0.9	500000	74	P	
59	**Co**	1	**21.040**	ug/l	1,052.00	2.9	5000	45	P	
60	**Ni**	1	**20.910**	ug/l	1,045.50	1.4	5000	74	P	
63	**Cu**	1	**10.610**	ug/l	530.50	0.8	5000	74	P	
66	**Zn**	1	**20.400**	ug/l	1,020.00	1.1	5000	74	P	
75	**As**	1	**84.320**	ug/l	4,216.00	1.1	5000	74	P	
78	**Se**	1	**81.180**	ug/l	4,059.00	0.5	5000	74	P	
88	**Sr**	1	**-0.005**	ug/l	-0.24	105.3	5000	74	P	
95	**Mo**	1	**100.900**	ug/l	5,045.00	0.3	5000	103	P	
109	**Ag**	1	**12.440**	ug/l	622.00	0.5	200	103	P	
111	**Cd**	1	**2.044**	ug/l	102.20	4.3	5000	103	P	
118	**Sn**	1	**105.700**	ug/l	5,285.00	1.1	5000	103	P	
123	**Sb**	1	**60.980**	ug/l	3,049.00	0.3	5000	103	P	
135	**Ba**	1	**85.610**	ug/l	4,280.50	0.5	5000	103	P	
200	**Hg**	1	**0.978**	ug/l	48.92	4.4	50	209	P	
205	**Tl**	1	**85.810**	ug/l	4,290.50	2.5	5000	103	A	
208	**Pb**	1	**20.620**	ug/l	1,031.00	2.9	5000	209	P	
238	**U**	1	**-0.001**	ug/l	-0.04	82.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	120713	1.44	174500	**69.2**	30	-	125	
45	Sc	1	1740635	2.36	2091000	**83.2**	30	-	125	
74	Ge	1	3890208	0.53	4536000	**85.8**	30	-	125	
103	Rh	1	5338061	0.38	6076000	**87.9**	30	-	125	
165	Ho	1	2370958	0.76	2580000	**91.9**	30	-	125	
175	Lu	1	2039631	0.90	2136000	**95.5**	30	-	125	
209	Bi	1	2471864	1.92	2616000	**94.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\205SMPL.D\205SMPL.D#
Date Acquired: Sep 27 2011 10:51 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**52.870**	ug/l	52.87	1.6	5000	6	P	
23	**Na**	1	**4832.000**	ug/l	4,832.00	0.7	500000	45	A	
24	**Mg**	1	**4862.000**	ug/l	4,862.00	1.0	500000	45	A	
27	**Al**	1	**473.100**	ug/l	473.10	1.0	500000	45	P	
31	**P**	1	**4720.000**	ug/l	4,720.00	1.1	500000	45	P	
39	**K**	1	**5021.000**	ug/l	5,021.00	1.7	500000	45	A	
44	**Ca**	1	**5024.000**	ug/l	5,024.00	1.1	500000	45	P	
47	**Ti**	1	**50.370**	ug/l	50.37	1.2	5000	45	P	
51	**V**	1	**49.550**	ug/l	49.55	2.4	5000	45	P	
52	**Cr**	1	**49.410**	ug/l	49.41	1.8	5000	45	P	
55	**Mn**	1	**51.130**	ug/l	51.13	1.5	5000	45	P	
57	**Fe**	1	**5056.000**	ug/l	5,056.00	0.6	500000	74	A	
59	**Co**	1	**50.130**	ug/l	50.13	1.5	5000	45	P	
60	**Ni**	1	**49.800**	ug/l	49.80	0.8	5000	74	P	
63	**Cu**	1	**50.620**	ug/l	50.62	1.2	5000	74	P	
66	**Zn**	1	**50.700**	ug/l	50.70	2.3	5000	74	P	
75	**As**	1	**50.080**	ug/l	50.08	1.6	5000	74	P	
78	**Se**	1	**50.030**	ug/l	50.03	0.5	5000	74	P	
88	**Sr**	1	**51.650**	ug/l	51.65	1.2	5000	74	P	
95	**Mo**	1	**50.130**	ug/l	50.13	0.9	5000	103	P	
109	**Ag**	1	**49.700**	ug/l	49.70	1.4	200	103	P	
111	**Cd**	1	**50.970**	ug/l	50.97	0.3	5000	103	P	
118	**Sn**	1	**52.100**	ug/l	52.10	1.9	5000	103	P	
123	**Sb**	1	**51.580**	ug/l	51.58	0.6	5000	103	P	
135	**Ba**	1	**52.930**	ug/l	52.93	0.1	5000	103	P	
200	**Hg**	1	**2.428**	ug/l	2.43	2.4	50	209	P	
205	**Tl**	1	**50.130**	ug/l	50.13	2.0	5000	103	P	
208	**Pb**	1	**49.570**	ug/l	49.57	2.4	5000	209	P	
238	**U**	1	**49.810**	ug/l	49.81	2.4	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	121085	1.68	174500	**69.4**	30 - 125	
45	Sc	1	1743271	1.49	2091000	**83.4**	30 - 125	
74	Ge	1	3880539	1.09	4536000	**85.5**	30 - 125	
103	Rh	1	5179265	0.54	6076000	**85.2**	30 - 125	
165	Ho	1	2379160	0.99	2580000	**92.2**	30 - 125	
175	Lu	1	1995001	0.72	2136000	**93.4**	30 - 125	
209	Bi	1	2393549	1.57	2616000	**91.5**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\206SMPL.D\206SMPL.D#
Date Acquired: Sep 27 2011 10:55 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	0.00	170.0	5000	6	P	
23	**Na**	1	**-11.700**	ug/l	-11.70	6.8	500000	45	P	
24	**Mg**	1	**0.079**	ug/l	0.08	33.6	500000	45	P	
27	**Al**	1	**-0.274**	ug/l	-0.27	61.0	500000	45	P	
31	**P**	1	**-6.774**	ug/l	-6.77	16.0	500000	45	P	
39	**K**	1	**-0.337**	ug/l	-0.34	586.7	500000	45	P	
44	**Ca**	1	**-1.515**	ug/l	-1.52	28.9	500000	45	P	
47	**Ti**	1	**0.045**	ug/l	0.05	6.2	5000	45	P	
51	**V**	1	**-0.009**	ug/l	-0.01	73.3	5000	45	P	
52	**Cr**	1	**0.147**	ug/l	0.15	8.8	5000	45	P	
55	**Mn**	1	**0.023**	ug/l	0.02	44.0	5000	45	P	
57	**Fe**	1	**2.371**	ug/l	2.37	10.5	500000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	67.3	5000	45	P	
60	**Ni**	1	**0.013**	ug/l	0.01	25.9	5000	74	P	
63	**Cu**	1	**-0.047**	ug/l	-0.05	21.9	5000	74	P	
66	**Zn**	1	**-0.019**	ug/l	-0.02	95.7	5000	74	P	
75	**As**	1	**-0.006**	ug/l	-0.01	156.8	5000	74	P	
78	**Se**	1	**0.210**	ug/l	0.21	10.5	5000	74	P	
88	**Sr**	1	**-0.010**	ug/l	-0.01	71.5	5000	74	P	
95	**Mo**	1	**0.144**	ug/l	0.14	7.9	5000	103	P	
109	**Ag**	1	**0.003**	ug/l	0.00	68.6	200	103	P	
111	**Cd**	1	**-0.001**	ug/l	0.00	1135.9	5000	103	P	
118	**Sn**	1	**0.504**	ug/l	0.50	14.5	5000	103	P	
123	**Sb**	1	**0.067**	ug/l	0.07	23.2	5000	103	P	
135	**Ba**	1	**0.011**	ug/l	0.01	82.9	5000	103	P	
200	**Hg**	1	**0.020**	ug/l	0.02	7.8	50	209	P	
205	**Tl**	1	**0.564**	ug/l	0.56	8.8	5000	103	P	
208	**Pb**	1	**-0.023**	ug/l	-0.02	25.8	5000	209	P	
238	**U**	1	**0.010**	ug/l	0.01	17.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	122184	2.83	174500	**70.0**	30	-	125	
45	Sc	1	1745379	1.32	2091000	**83.5**	30	-	125	
74	Ge	1	3933578	0.80	4536000	**86.7**	30	-	125	
103	Rh	1	5349632	1.56	6076000	**88.0**	30	-	125	
165	Ho	1	2399379	1.49	2580000	**93.0**	30	-	125	
175	Lu	1	2032651	2.59	2136000	**95.2**	30	-	125	
209	Bi	1	2471780	1.45	2616000	**94.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\207SMPL.D\207SMPL.D#
Date Acquired: Sep 27 2011 10:59 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28673-A-2-A Vial Number: 2401
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.05	84.3	5000	6	P	
23	**Na**	1	**529.800**	ug/l	2,649.00	5.4	500000	45	A	
24	**Mg**	1	**450.900**	ug/l	2,254.50	2.5	500000	45	P	
27	**Al**	1	**770.500**	ug/l	3,852.50	3.1	500000	45	P	
31	**P**	1	**18.920**	ug/l	94.60	13.3	500000	45	P	
39	**K**	1	**136.400**	ug/l	682.00	3.4	500000	45	P	
44	**Ca**	1	**3257.000**	ug/l	16,285.00	2.0	500000	45	P	
47	**Ti**	1	**23.750**	ug/l	118.75	3.8	5000	45	P	
51	**V**	1	**1.644**	ug/l	8.22	1.7	5000	45	P	
52	**Cr**	1	**0.939**	ug/l	4.70	1.5	5000	45	P	
55	**Mn**	1	**23.080**	ug/l	115.40	1.7	5000	45	P	
57	**Fe**	1	**775.900**	ug/l	3,879.50	1.3	500000	74	P	
59	**Co**	1	**0.317**	ug/l	1.59	6.2	5000	45	P	
60	**Ni**	1	**0.620**	ug/l	3.10	6.2	5000	74	P	
63	**Cu**	1	**1.615**	ug/l	8.08	3.8	5000	74	P	
66	**Zn**	1	**4.389**	ug/l	21.95	3.8	5000	74	P	
75	**As**	1	**0.345**	ug/l	1.73	10.6	5000	74	P	
78	**Se**	1	**0.157**	ug/l	0.78	31.4	5000	74	P	
88	**Sr**	1	**23.420**	ug/l	117.10	1.0	5000	74	P	
95	**Mo**	1	**0.111**	ug/l	0.56	17.4	5000	103	P	
109	**Ag**	1	**0.003**	ug/l	0.01	42.8	200	103	P	
111	**Cd**	1	**0.022**	ug/l	0.11	28.9	5000	103	P	
118	**Sn**	1	**0.410**	ug/l	2.05	13.6	5000	103	P	
123	**Sb**	1	**0.073**	ug/l	0.37	17.3	5000	103	P	
135	**Ba**	1	**5.316**	ug/l	26.58	18.6	5000	103	P	
200	**Hg**	1	**0.008**	ug/l	0.04	25.4	50	209	P	
205	**Tl**	1	**0.264**	ug/l	1.32	12.6	5000	103	P	
208	**Pb**	1	**0.245**	ug/l	1.22	10.4	5000	209	P	
238	**U**	1	**0.015**	ug/l	0.07	43.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	112813	2.06	174500	**64.6**	30	-	125	
45	Sc	1	1690710	2.68	2091000	**80.9**	30	-	125	
74	Ge	1	3855743	0.84	4536000	**85.0**	30	-	125	
103	Rh	1	5280592	0.86	6076000	**86.9**	30	-	125	
165	Ho	1	2422177	1.04	2580000	**93.9**	30	-	125	
175	Lu	1	2037369	0.37	2136000	**95.4**	30	-	125	
209	Bi	1	2513519	1.34	2616000	**96.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\208SMPL.D\208SMPL.D#
Date Acquired: Sep 27 2011 11:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28703-A-1-A Vial Number: 2402
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	-0.01	73.0	5000	6	P	
23	**Na**	1	**1474.000**	ug/l	7,370.00	0.5	500000	45	A	
24	**Mg**	1	**1015.000**	ug/l	5,075.00	2.1	500000	45	A	
27	**Al**	1	**2.763**	ug/l	13.82	14.5	500000	45	P	
31	**P**	1	**22.520**	ug/l	112.60	10.4	500000	45	P	
39	**K**	1	**403.700**	ug/l	2,018.50	1.3	500000	45	P	
44	**Ca**	1	**4087.000**	ug/l	20,435.00	1.1	500000	45	P	
47	**Ti**	1	**0.258**	ug/l	1.29	16.6	5000	45	P	
51	**V**	1	**1.833**	ug/l	9.17	2.7	5000	45	P	
52	**Cr**	1	**0.482**	ug/l	2.41	3.8	5000	45	P	
55	**Mn**	1	**0.519**	ug/l	2.60	6.2	5000	45	P	
57	**Fe**	1	**10.690**	ug/l	53.45	7.4	500000	74	P	
59	**Co**	1	**0.006**	ug/l	0.03	53.0	5000	45	P	
60	**Ni**	1	**0.001**	ug/l	0.00	1181.7	5000	74	P	
63	**Cu**	1	**0.418**	ug/l	2.09	4.8	5000	74	P	
66	**Zn**	1	**1.254**	ug/l	6.27	5.7	5000	74	P	
75	**As**	1	**0.144**	ug/l	0.72	12.2	5000	74	P	
78	**Se**	1	**0.098**	ug/l	0.49	43.2	5000	74	P	
88	**Sr**	1	**24.230**	ug/l	121.15	1.6	5000	74	P	
95	**Mo**	1	**0.129**	ug/l	0.65	21.7	5000	103	P	
109	**Ag**	1	**0.005**	ug/l	0.02	82.5	200	103	P	
111	**Cd**	1	**0.006**	ug/l	0.03	66.1	5000	103	P	
118	**Sn**	1	**0.285**	ug/l	1.42	21.2	5000	103	P	
123	**Sb**	1	**0.033**	ug/l	0.16	41.5	5000	103	P	
135	**Ba**	1	**0.990**	ug/l	4.95	14.4	5000	103	P	
200	**Hg**	1	**0.006**	ug/l	0.03	39.6	50	209	P	
205	**Tl**	1	**0.167**	ug/l	0.83	16.0	5000	103	P	
208	**Pb**	1	**1.873**	ug/l	9.37	1.8	5000	209	P	
238	**U**	1	**0.004**	ug/l	0.02	18.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	115104	1.71	174500	**66.0**	30	-	125	
45	Sc	1	1691225	1.29	2091000	**80.9**	30	-	125	
74	Ge	1	3884603	0.62	4536000	**85.6**	30	-	125	
103	Rh	1	5278967	1.09	6076000	**86.9**	30	-	125	
165	Ho	1	2390656	1.00	2580000	**92.7**	30	-	125	
175	Lu	1	2042320	1.34	2136000	**95.6**	30	-	125	
209	Bi	1	2499134	1.35	2616000	**95.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\209SMPL.D\209SMPL.D#
Date Acquired: Sep 27 2011 11:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28706-A-1-A Vial Number: 2403
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.006**	ug/l	-0.03	34.1	5000	6	P	
23	**Na**	1	**1744.000**	ug/l	8,720.00	2.3	500000	45	A	
24	**Mg**	1	**3507.000**	ug/l	17,535.00	3.3	500000	45	A	
27	**Al**	1	**-1.799**	ug/l	-9.00	16.5	500000	45	P	
31	**P**	1	**12.900**	ug/l	64.50	18.6	500000	45	P	
39	**K**	1	**13.270**	ug/l	66.35	26.7	500000	45	P	
44	**Ca**	1	**5789.000**	ug/l	28,945.00	1.8	500000	45	P	
47	**Ti**	1	**0.193**	ug/l	0.97	14.6	5000	45	P	
51	**V**	1	**2.028**	ug/l	10.14	3.0	5000	45	P	
52	**Cr**	1	**0.257**	ug/l	1.28	5.9	5000	45	P	
55	**Mn**	1	**0.369**	ug/l	1.85	5.5	5000	45	P	
57	**Fe**	1	**13.880**	ug/l	69.40	5.1	500000	74	P	
59	**Co**	1	**0.011**	ug/l	0.05	13.8	5000	45	P	
60	**Ni**	1	**0.119**	ug/l	0.59	16.2	5000	74	P	
63	**Cu**	1	**0.274**	ug/l	1.37	12.6	5000	74	P	
66	**Zn**	1	**1.207**	ug/l	6.04	2.8	5000	74	P	
75	**As**	1	**0.059**	ug/l	0.29	49.8	5000	74	P	
78	**Se**	1	**0.112**	ug/l	0.56	18.9	5000	74	P	
88	**Sr**	1	**7.803**	ug/l	39.02	0.4	5000	74	P	
95	**Mo**	1	**0.040**	ug/l	0.20	49.8	5000	103	P	
109	**Ag**	1	**0.003**	ug/l	0.02	56.6	200	103	P	
111	**Cd**	1	**0.015**	ug/l	0.07	63.3	5000	103	P	
118	**Sn**	1	**0.214**	ug/l	1.07	18.4	5000	103	P	
123	**Sb**	1	**0.027**	ug/l	0.14	19.3	5000	103	P	
135	**Ba**	1	**0.304**	ug/l	1.52	13.9	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.04	32.0	50	209	P	
205	**Tl**	1	**0.129**	ug/l	0.64	11.6	5000	103	P	
208	**Pb**	1	**0.908**	ug/l	4.54	0.4	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	239.5	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	113068	1.09	174500	**64.8**	30	-	125	
45	Sc	1	1680184	1.64	2091000	**80.4**	30	-	125	
74	Ge	1	3826800	1.04	4536000	**84.4**	30	-	125	
103	Rh	1	5186265	0.66	6076000	**85.4**	30	-	125	
165	Ho	1	2411589	2.04	2580000	**93.5**	30	-	125	
175	Lu	1	2038691	1.47	2136000	**95.4**	30	-	125	
209	Bi	1	2462176	0.66	2616000	**94.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\210SMPL.D\210SMPL.D#
Date Acquired: Sep 27 2011 11:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28707-A-1-A Vial Number: 2404
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	-0.02	75.4	5000	6	P	
23	**Na**	1	**880.800**	ug/l	4,404.00	1.9	500000	45	A	
24	**Mg**	1	**318.600**	ug/l	1,593.00	0.5	500000	45	P	
27	**Al**	1	**2.671**	ug/l	13.36	11.0	500000	45	P	
31	**P**	1	**16.800**	ug/l	84.00	7.5	500000	45	P	
39	**K**	1	**302.100**	ug/l	1,510.50	1.7	500000	45	P	
44	**Ca**	1	**1234.000**	ug/l	6,170.00	0.4	500000	45	P	
47	**Ti**	1	**0.191**	ug/l	0.95	12.3	5000	45	P	
51	**V**	1	**0.907**	ug/l	4.53	2.7	5000	45	P	
52	**Cr**	1	**0.177**	ug/l	0.89	2.0	5000	45	P	
55	**Mn**	1	**0.302**	ug/l	1.51	3.0	5000	45	P	
57	**Fe**	1	**12.950**	ug/l	64.75	0.8	500000	74	P	
59	**Co**	1	**0.008**	ug/l	0.04	32.9	5000	45	P	
60	**Ni**	1	**0.004**	ug/l	0.02	404.6	5000	74	P	
63	**Cu**	1	**0.196**	ug/l	0.98	5.4	5000	74	P	
66	**Zn**	1	**1.313**	ug/l	6.57	6.0	5000	74	P	
75	**As**	1	**0.080**	ug/l	0.40	26.4	5000	74	P	
78	**Se**	1	**0.114**	ug/l	0.57	32.6	5000	74	P	
88	**Sr**	1	**10.220**	ug/l	51.10	2.1	5000	74	P	
95	**Mo**	1	**0.058**	ug/l	0.29	17.3	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	40.8	200	103	P	
111	**Cd**	1	**0.008**	ug/l	0.04	89.1	5000	103	P	
118	**Sn**	1	**0.212**	ug/l	1.06	12.8	5000	103	P	
123	**Sb**	1	**0.013**	ug/l	0.07	58.4	5000	103	P	
135	**Ba**	1	**0.460**	ug/l	2.30	5.3	5000	103	P	
200	**Hg**	1	**0.005**	ug/l	0.03	55.8	50	209	P	
205	**Tl**	1	**0.109**	ug/l	0.55	14.8	5000	103	P	
208	**Pb**	1	**1.050**	ug/l	5.25	2.3	5000	209	P	
238	**U**	1	**0.001**	ug/l	0.00	232.9	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	109608	1.17	174500	**62.8**	30 - 125	
45	Sc	1	1670011	0.99	2091000	**79.9**	30 - 125	
74	Ge	1	3817050	0.78	4536000	**84.2**	30 - 125	
103	Rh	1	5285900	0.32	6076000	**87.0**	30 - 125	
165	Ho	1	2409414	0.46	2580000	**93.4**	30 - 125	
175	Lu	1	2028476	1.30	2136000	**95.0**	30 - 125	
209	Bi	1	2516038	1.53	2616000	**96.2**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\211SMPL.D\211SMPL.D#
Date Acquired: Sep 27 2011 11:17 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28708-A-1-A Vial Number: 2405
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	0.02	152.9	5000	6	P	
23	**Na**	1	**2809.000**	ug/l	14,045.00	1.1	500000	45	A	
24	**Mg**	1	**1734.000**	ug/l	8,670.00	0.6	500000	45	A	
27	**Al**	1	**44.960**	ug/l	224.80	2.7	500000	45	P	
31	**P**	1	**15.790**	ug/l	78.95	9.4	500000	45	P	
39	**K**	1	**563.900**	ug/l	2,819.50	2.7	500000	45	A	
44	**Ca**	1	**5898.000**	ug/l	29,490.00	1.9	500000	45	P	
47	**Ti**	1	**0.877**	ug/l	4.38	12.3	5000	45	P	
51	**V**	1	**1.404**	ug/l	7.02	4.8	5000	45	P	
52	**Cr**	1	**0.180**	ug/l	0.90	7.8	5000	45	P	
55	**Mn**	1	**11.540**	ug/l	57.70	2.9	5000	45	P	
57	**Fe**	1	**107.600**	ug/l	538.00	1.3	500000	74	P	
59	**Co**	1	**0.061**	ug/l	0.31	5.6	5000	45	P	
60	**Ni**	1	**0.101**	ug/l	0.50	16.0	5000	74	P	
63	**Cu**	1	**0.283**	ug/l	1.41	9.3	5000	74	P	
66	**Zn**	1	**1.524**	ug/l	7.62	3.3	5000	74	P	
75	**As**	1	**0.192**	ug/l	0.96	12.1	5000	74	P	
78	**Se**	1	**0.065**	ug/l	0.32	99.2	5000	74	P	
88	**Sr**	1	**40.870**	ug/l	204.35	1.1	5000	74	P	
95	**Mo**	1	**0.082**	ug/l	0.41	6.8	5000	103	P	
109	**Ag**	1	**0.004**	ug/l	0.02	45.6	200	103	P	
111	**Cd**	1	**0.016**	ug/l	0.08	56.9	5000	103	P	
118	**Sn**	1	**0.169**	ug/l	0.85	31.4	5000	103	P	
123	**Sb**	1	**0.019**	ug/l	0.10	25.6	5000	103	P	
135	**Ba**	1	**2.424**	ug/l	12.12	2.1	5000	103	P	
200	**Hg**	1	**0.000**	ug/l	0.00	4816.6	50	209	P	
205	**Tl**	1	**0.093**	ug/l	0.46	12.1	5000	103	P	
208	**Pb**	1	**0.924**	ug/l	4.62	0.8	5000	209	P	
238	**U**	1	**0.007**	ug/l	0.04	24.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	108970	1.61	174500	**62.4**	30 - 125	
45	Sc	1	1673317	2.77	2091000	**80.0**	30 - 125	
74	Ge	1	3807680	0.95	4536000	**83.9**	30 - 125	
103	Rh	1	5130416	0.39	6076000	**84.4**	30 - 125	
165	Ho	1	2386212	1.66	2580000	**92.5**	30 - 125	
175	Lu	1	2027071	1.33	2136000	**94.9**	30 - 125	
209	Bi	1	2489059	1.18	2616000	**95.1**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\212SMPL.D\212SMPL.D#
Date Acquired: Sep 27 2011 11:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-1-A Vial Number: 2406
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.000**	ug/l	0.00	2051.3	5000	6	P	
23	**Na**	1	**3079.000**	ug/l	15,395.00	4.8	500000	45	A	
24	**Mg**	1	**635.600**	ug/l	3,178.00	3.7	500000	45	P	
27	**Al**	1	**10.220**	ug/l	51.10	2.2	500000	45	P	
31	**P**	1	**20.360**	ug/l	101.80	9.4	500000	45	P	
39	**K**	1	**834.800**	ug/l	4,174.00	1.5	500000	45	A	
44	**Ca**	1	**2339.000**	ug/l	11,695.00	2.0	500000	45	P	
47	**Ti**	1	**0.966**	ug/l	4.83	7.7	5000	45	P	
51	**V**	1	**0.544**	ug/l	2.72	5.9	5000	45	P	
52	**Cr**	1	**0.327**	ug/l	1.64	6.0	5000	45	P	
55	**Mn**	1	**1.174**	ug/l	5.87	0.4	5000	45	P	
57	**Fe**	1	**11.940**	ug/l	59.70	2.4	500000	74	P	
59	**Co**	1	**0.014**	ug/l	0.07	22.8	5000	45	P	
60	**Ni**	1	**0.354**	ug/l	1.77	13.6	5000	74	P	
63	**Cu**	1	**0.499**	ug/l	2.50	3.8	5000	74	P	
66	**Zn**	1	**38.040**	ug/l	190.20	1.1	5000	74	P	
75	**As**	1	**38.410**	ug/l	192.05	1.0	5000	74	P	
78	**Se**	1	**0.097**	ug/l	0.48	77.0	5000	74	P	
88	**Sr**	1	**8.165**	ug/l	40.83	0.7	5000	74	P	
95	**Mo**	1	**0.053**	ug/l	0.27	21.5	5000	103	P	
109	**Ag**	1	**0.012**	ug/l	0.06	26.6	200	103	P	
111	**Cd**	1	**-0.018**	ug/l	-0.09	141.3	5000	103	P	
118	**Sn**	1	**0.195**	ug/l	0.98	15.0	5000	103	P	
123	**Sb**	1	**0.066**	ug/l	0.33	16.2	5000	103	P	
135	**Ba**	1	**0.295**	ug/l	1.48	10.3	5000	103	P	
200	**Hg**	1	**0.007**	ug/l	0.03	28.9	50	209	P	
205	**Tl**	1	**0.077**	ug/l	0.39	14.4	5000	103	P	
208	**Pb**	1	**0.143**	ug/l	0.71	2.8	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	48.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	108458	0.72	174500	**62.2**	30	-	125	
45	Sc	1	1670200	1.85	2091000	**79.9**	30	-	125	
74	Ge	1	3815652	0.90	4536000	**84.1**	30	-	125	
103	Rh	1	5185600	0.87	6076000	**85.3**	30	-	125	
165	Ho	1	2356473	1.24	2580000	**91.3**	30	-	125	
175	Lu	1	2018592	0.01	2136000	**94.5**	30	-	125	
209	Bi	1	2485171	0.40	2616000	**95.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\213SMPL.D\213SMPL.D#
Date Acquired: Sep 27 2011 11:26 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-2-A Vial Number: 2407
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	0.00	489.7	5000	6	P	
23	**Na**	1	**930.900**	ug/l	4,654.50	1.8	500000	45	A	
24	**Mg**	1	**45.380**	ug/l	226.90	1.1	500000	45	P	
27	**Al**	1	**11.380**	ug/l	56.90	65.6	500000	45	P	
31	**P**	1	**17.500**	ug/l	87.50	8.6	500000	45	P	
39	**K**	1	**222.300**	ug/l	1,111.50	1.4	500000	45	P	
44	**Ca**	1	**324.500**	ug/l	1,622.50	0.8	500000	45	P	
47	**Ti**	1	**0.653**	ug/l	3.26	4.3	5000	45	P	
51	**V**	1	**0.438**	ug/l	2.19	3.6	5000	45	P	
52	**Cr**	1	**0.232**	ug/l	1.16	2.6	5000	45	P	
55	**Mn**	1	**0.269**	ug/l	1.34	5.2	5000	45	P	
57	**Fe**	1	**12.620**	ug/l	63.10	3.8	500000	74	P	
59	**Co**	1	**0.007**	ug/l	0.04	26.6	5000	45	P	
60	**Ni**	1	**0.012**	ug/l	0.06	195.1	5000	74	P	
63	**Cu**	1	**0.177**	ug/l	0.88	17.1	5000	74	P	
66	**Zn**	1	**11.750**	ug/l	58.75	1.9	5000	74	P	
75	**As**	1	**47.420**	ug/l	237.10	0.8	5000	74	P	
78	**Se**	1	**0.094**	ug/l	0.47	130.3	5000	74	P	
88	**Sr**	1	**0.667**	ug/l	3.34	3.1	5000	74	P	
95	**Mo**	1	**0.035**	ug/l	0.18	7.9	5000	103	P	
109	**Ag**	1	**0.008**	ug/l	0.04	7.0	200	103	P	
111	**Cd**	1	**0.007**	ug/l	0.04	72.2	5000	103	P	
118	**Sn**	1	**0.148**	ug/l	0.74	32.9	5000	103	P	
123	**Sb**	1	**0.021**	ug/l	0.11	18.7	5000	103	P	
135	**Ba**	1	**0.061**	ug/l	0.30	18.1	5000	103	P	
200	**Hg**	1	**0.006**	ug/l	0.03	30.0	50	209	P	
205	**Tl**	1	**0.067**	ug/l	0.33	10.5	5000	103	P	
208	**Pb**	1	**0.207**	ug/l	1.04	5.9	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	260.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	105286	1.92	174500	**60.3**	30	-	125	
45	Sc	1	1660142	1.10	2091000	**79.4**	30	-	125	
74	Ge	1	3781530	0.13	4536000	**83.4**	30	-	125	
103	Rh	1	5226769	1.33	6076000	**86.0**	30	-	125	
165	Ho	1	2373846	0.39	2580000	**92.0**	30	-	125	
175	Lu	1	2020799	0.67	2136000	**94.6**	30	-	125	
209	Bi	1	2516235	0.88	2616000	**96.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\214SMPL.D\214SMPL.D#
Date Acquired: Sep 27 2011 11:30 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-3-A Vial Number: 2408
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	-0.02	131.2	5000	6	P	
23	**Na**	1	**956.600**	ug/l	4,783.00	0.7	500000	45	A	
24	**Mg**	1	**13.650**	ug/l	68.25	2.4	500000	45	P	
27	**Al**	1	**4.176**	ug/l	20.88	6.0	500000	45	P	
31	**P**	1	**11.990**	ug/l	59.95	13.8	500000	45	P	
39	**K**	1	**115.800**	ug/l	579.00	1.4	500000	45	P	
44	**Ca**	1	**202.200**	ug/l	1,011.00	0.5	500000	45	P	
47	**Ti**	1	**0.776**	ug/l	3.88	4.6	5000	45	P	
51	**V**	1	**0.399**	ug/l	2.00	6.1	5000	45	P	
52	**Cr**	1	**0.266**	ug/l	1.33	4.1	5000	45	P	
55	**Mn**	1	**0.162**	ug/l	0.81	7.3	5000	45	P	
57	**Fe**	1	**7.488**	ug/l	37.44	5.0	500000	74	P	
59	**Co**	1	**0.004**	ug/l	0.02	118.7	5000	45	P	
60	**Ni**	1	**0.035**	ug/l	0.18	23.7	5000	74	P	
63	**Cu**	1	**0.222**	ug/l	1.11	8.2	5000	74	P	
66	**Zn**	1	**17.460**	ug/l	87.30	0.2	5000	74	P	
75	**As**	1	**49.590**	ug/l	247.95	0.7	5000	74	P	
78	**Se**	1	**0.127**	ug/l	0.63	73.0	5000	74	P	
88	**Sr**	1	**0.209**	ug/l	1.05	3.7	5000	74	P	
95	**Mo**	1	**0.025**	ug/l	0.12	34.4	5000	103	P	
109	**Ag**	1	**0.005**	ug/l	0.02	56.0	200	103	P	
111	**Cd**	1	**-0.002**	ug/l	-0.01	228.9	5000	103	P	
118	**Sn**	1	**0.127**	ug/l	0.64	17.8	5000	103	P	
123	**Sb**	1	**0.021**	ug/l	0.11	35.4	5000	103	P	
135	**Ba**	1	**0.042**	ug/l	0.21	22.6	5000	103	P	
200	**Hg**	1	**0.001**	ug/l	0.01	207.5	50	209	P	
205	**Tl**	1	**0.063**	ug/l	0.32	26.5	5000	103	P	
208	**Pb**	1	**0.169**	ug/l	0.84	7.7	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	1248.4	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	104846	1.83	174500	**60.1**	30	-	125	
45	Sc	1	1649055	1.58	2091000	**78.9**	30	-	125	
74	Ge	1	3760132	0.62	4536000	**82.9**	30	-	125	
103	Rh	1	5199239	1.30	6076000	**85.6**	30	-	125	
165	Ho	1	2374967	0.55	2580000	**92.1**	30	-	125	
175	Lu	1	2006388	1.06	2136000	**93.9**	30	-	125	
209	Bi	1	2506191	0.54	2616000	**95.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\215SMPL.D\215SMPL.D#
Date Acquired: Sep 27 2011 11:35 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-4-A Vial Number: 2409
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	-0.02	66.5	5000	6	P	
23	**Na**	1	**1231.000**	ug/l	6,155.00	1.8	500000	45	A	
24	**Mg**	1	**584.300**	ug/l	2,921.50	1.9	500000	45	P	
27	**Al**	1	**4.474**	ug/l	22.37	8.1	500000	45	P	
31	**P**	1	**6.765**	ug/l	33.83	5.5	500000	45	P	
39	**K**	1	**128.500**	ug/l	642.50	3.9	500000	45	P	
44	**Ca**	1	**1869.000**	ug/l	9,345.00	1.9	500000	45	P	
47	**Ti**	1	**0.696**	ug/l	3.48	8.4	5000	45	P	
51	**V**	1	**1.074**	ug/l	5.37	2.4	5000	45	P	
52	**Cr**	1	**0.291**	ug/l	1.45	2.3	5000	45	P	
55	**Mn**	1	**0.453**	ug/l	2.26	7.9	5000	45	P	
57	**Fe**	1	**8.841**	ug/l	44.21	1.6	500000	74	P	
59	**Co**	1	**0.012**	ug/l	0.06	25.1	5000	45	P	
60	**Ni**	1	**0.244**	ug/l	1.22	12.5	5000	74	P	
63	**Cu**	1	**0.310**	ug/l	1.55	10.7	5000	74	P	
66	**Zn**	1	**20.040**	ug/l	100.20	1.1	5000	74	P	
75	**As**	1	**22.480**	ug/l	112.40	0.9	5000	74	P	
78	**Se**	1	**0.139**	ug/l	0.70	36.8	5000	74	P	
88	**Sr**	1	**6.439**	ug/l	32.20	1.4	5000	74	P	
95	**Mo**	1	**0.035**	ug/l	0.18	28.0	5000	103	P	
109	**Ag**	1	**0.015**	ug/l	0.07	4.9	200	103	P	
111	**Cd**	1	**0.014**	ug/l	0.07	65.3	5000	103	P	
118	**Sn**	1	**0.106**	ug/l	0.53	31.3	5000	103	P	
123	**Sb**	1	**0.014**	ug/l	0.07	22.6	5000	103	P	
135	**Ba**	1	**0.164**	ug/l	0.82	15.9	5000	103	P	
200	**Hg**	1	**0.002**	ug/l	0.01	70.4	50	209	P	
205	**Tl**	1	**0.058**	ug/l	0.29	20.2	5000	103	P	
208	**Pb**	1	**0.109**	ug/l	0.54	1.5	5000	209	P	
238	**U**	1	**-0.001**	ug/l	0.00	109.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	105546	2.27	174500	**60.5**	30	-	125	
45	Sc	1	1640694	2.51	2091000	**78.5**	30	-	125	
74	Ge	1	3754760	0.77	4536000	**82.8**	30	-	125	
103	Rh	1	5272363	0.79	6076000	**86.8**	30	-	125	
165	Ho	1	2400627	1.31	2580000	**93.0**	30	-	125	
175	Lu	1	2023421	0.94	2136000	**94.7**	30	-	125	
209	Bi	1	2510844	0.39	2616000	**96.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\216SMPL.D\216SMPL.D#
Date Acquired: Sep 27 2011 11:39 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-5-A Vial Number: 2410
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.005**	ug/l	-0.02	131.1	5000	6	P	
23	**Na**	1	**1349.000**	ug/l	6,745.00	2.3	500000	45	A	
24	**Mg**	1	**153.700**	ug/l	768.50	2.0	500000	45	P	
27	**Al**	1	**2.893**	ug/l	14.47	6.2	500000	45	P	
31	**P**	1	**10.120**	ug/l	50.60	13.4	500000	45	P	
39	**K**	1	**128.500**	ug/l	642.50	3.1	500000	45	P	
44	**Ca**	1	**695.100**	ug/l	3,475.50	1.8	500000	45	P	
47	**Ti**	1	**0.151**	ug/l	0.76	11.9	5000	45	P	
51	**V**	1	**0.571**	ug/l	2.86	3.3	5000	45	P	
52	**Cr**	1	**0.124**	ug/l	0.62	20.9	5000	45	P	
55	**Mn**	1	**0.359**	ug/l	1.80	4.5	5000	45	P	
57	**Fe**	1	**17.330**	ug/l	86.65	1.9	500000	74	P	
59	**Co**	1	**0.006**	ug/l	0.03	46.7	5000	45	P	
60	**Ni**	1	**0.066**	ug/l	0.33	37.7	5000	74	P	
63	**Cu**	1	**0.161**	ug/l	0.81	16.1	5000	74	P	
66	**Zn**	1	**8.244**	ug/l	41.22	1.4	5000	74	P	
75	**As**	1	**42.480**	ug/l	212.40	2.1	5000	74	P	
78	**Se**	1	**0.052**	ug/l	0.26	159.6	5000	74	P	
88	**Sr**	1	**1.975**	ug/l	9.88	3.0	5000	74	P	
95	**Mo**	1	**0.034**	ug/l	0.17	33.5	5000	103	P	
109	**Ag**	1	**0.009**	ug/l	0.05	31.3	200	103	P	
111	**Cd**	1	**0.015**	ug/l	0.07	38.4	5000	103	P	
118	**Sn**	1	**0.113**	ug/l	0.56	10.2	5000	103	P	
123	**Sb**	1	**0.022**	ug/l	0.11	19.8	5000	103	P	
135	**Ba**	1	**0.175**	ug/l	0.87	27.0	5000	103	P	
200	**Hg**	1	**0.004**	ug/l	0.02	72.9	50	209	P	
205	**Tl**	1	**0.053**	ug/l	0.26	14.5	5000	103	P	
208	**Pb**	1	**0.206**	ug/l	1.03	6.5	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	27.8	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	105687	3.92	174500	**60.6**	30	-	125	
45	Sc	1	1631630	0.49	2091000	**78.0**	30	-	125	
74	Ge	1	3785532	2.11	4536000	**83.5**	30	-	125	
103	Rh	1	5179229	1.92	6076000	**85.2**	30	-	125	
165	Ho	1	2388301	2.78	2580000	**92.6**	30	-	125	
175	Lu	1	2022295	0.83	2136000	**94.7**	30	-	125	
209	Bi	1	2483411	0.88	2616000	**94.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\217SMPL.D\217SMPL.D#
Date Acquired: Sep 27 2011 11:43 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**53.800**	ug/l	53.80	2.1	5000	6	P	
23	**Na**	1	**4767.000**	ug/l	4,767.00	1.1	500000	45	A	
24	**Mg**	1	**4677.000**	ug/l	4,677.00	1.9	500000	45	A	
27	**Al**	1	**458.500**	ug/l	458.50	1.7	500000	45	P	
31	**P**	1	**4608.000**	ug/l	4,608.00	1.6	500000	45	P	
39	**K**	1	**4998.000**	ug/l	4,998.00	0.8	500000	45	A	
44	**Ca**	1	**4985.000**	ug/l	4,985.00	0.8	500000	45	P	
47	**Ti**	1	**49.960**	ug/l	49.96	1.5	5000	45	P	
51	**V**	1	**49.600**	ug/l	49.60	2.0	5000	45	P	
52	**Cr**	1	**49.360**	ug/l	49.36	1.3	5000	45	P	
55	**Mn**	1	**51.540**	ug/l	51.54	1.4	5000	45	P	
57	**Fe**	1	**5049.000**	ug/l	5,049.00	1.3	500000	74	A	
59	**Co**	1	**50.500**	ug/l	50.50	1.6	5000	45	P	
60	**Ni**	1	**49.890**	ug/l	49.89	1.8	5000	74	P	
63	**Cu**	1	**50.050**	ug/l	50.05	1.4	5000	74	P	
66	**Zn**	1	**50.370**	ug/l	50.37	1.1	5000	74	P	
75	**As**	1	**50.200**	ug/l	50.20	1.7	5000	74	P	
78	**Se**	1	**49.580**	ug/l	49.58	0.5	5000	74	P	
88	**Sr**	1	**51.240**	ug/l	51.24	1.5	5000	74	P	
95	**Mo**	1	**49.050**	ug/l	49.05	1.8	5000	103	P	
109	**Ag**	1	**49.110**	ug/l	49.11	1.5	200	103	P	
111	**Cd**	1	**50.560**	ug/l	50.56	2.1	5000	103	P	
118	**Sn**	1	**50.680**	ug/l	50.68	2.6	5000	103	P	
123	**Sb**	1	**51.520**	ug/l	51.52	0.9	5000	103	P	
135	**Ba**	1	**52.330**	ug/l	52.33	1.1	5000	103	P	
200	**Hg**	1	**2.361**	ug/l	2.36	1.6	50	209	P	
205	**Tl**	1	**49.610**	ug/l	49.61	1.5	5000	103	P	
208	**Pb**	1	**48.610**	ug/l	48.61	1.9	5000	209	P	
238	**U**	1	**49.040**	ug/l	49.04	2.8	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	112299	0.98	174500	**64.4**	30	-	125	
45	Sc	1	1700851	1.82	2091000	**81.3**	30	-	125	
74	Ge	1	3812251	0.71	4536000	**84.0**	30	-	125	
103	Rh	1	5169294	1.43	6076000	**85.1**	30	-	125	
165	Ho	1	2357874	0.66	2580000	**91.4**	30	-	125	
175	Lu	1	2014197	1.56	2136000	**94.3**	30	-	125	
209	Bi	1	2452399	1.10	2616000	**93.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\218SMPL.D\218SMPL.D#
Date Acquired: Sep 27 2011 11:48 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.000**	ug/l	0.00	512.0	5000	6	P	
23	**Na**	1	**-10.310**	ug/l	-10.31	18.4	500000	45	P	
24	**Mg**	1	**0.080**	ug/l	0.08	79.5	500000	45	P	
27	**Al**	1	**-0.191**	ug/l	-0.19	113.6	500000	45	P	
31	**P**	1	**-6.488**	ug/l	-6.49	2.2	500000	45	P	
39	**K**	1	**-0.447**	ug/l	-0.45	919.5	500000	45	P	
44	**Ca**	1	**-1.633**	ug/l	-1.63	25.4	500000	45	P	
47	**Ti**	1	**0.039**	ug/l	0.04	41.4	5000	45	P	
51	**V**	1	**0.004**	ug/l	0.00	459.4	5000	45	P	
52	**Cr**	1	**0.141**	ug/l	0.14	7.4	5000	45	P	
55	**Mn**	1	**0.008**	ug/l	0.01	40.5	5000	45	P	
57	**Fe**	1	**2.584**	ug/l	2.58	9.4	500000	74	P	
59	**Co**	1	**0.000**	ug/l	0.00	594.1	5000	45	P	
60	**Ni**	1	**0.016**	ug/l	0.02	56.8	5000	74	P	
63	**Cu**	1	**-0.037**	ug/l	-0.04	31.8	5000	74	P	
66	**Zn**	1	**-0.009**	ug/l	-0.01	324.6	5000	74	P	
75	**As**	1	**0.003**	ug/l	0.00	727.7	5000	74	P	
78	**Se**	1	**0.099**	ug/l	0.10	86.6	5000	74	P	
88	**Sr**	1	**-0.014**	ug/l	-0.01	55.8	5000	74	P	
95	**Mo**	1	**0.081**	ug/l	0.08	36.1	5000	103	P	
109	**Ag**	1	**0.003**	ug/l	0.00	82.3	200	103	P	
111	**Cd**	1	**0.003**	ug/l	0.00	230.4	5000	103	P	
118	**Sn**	1	**0.214**	ug/l	0.21	17.0	5000	103	P	
123	**Sb**	1	**0.042**	ug/l	0.04	31.6	5000	103	P	
135	**Ba**	1	**0.010**	ug/l	0.01	155.7	5000	103	P	
200	**Hg**	1	**0.014**	ug/l	0.01	9.6	50	209	P	
205	**Tl**	1	**0.345**	ug/l	0.34	9.1	5000	103	P	
208	**Pb**	1	**-0.019**	ug/l	-0.02	53.3	5000	209	P	
238	**U**	1	**0.012**	ug/l	0.01	16.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	116149	1.83	174500	**66.6**	30	-	125	
45	Sc	1	1709110	3.43	2091000	**81.7**	30	-	125	
74	Ge	1	3865689	0.69	4536000	**85.2**	30	-	125	
103	Rh	1	5291556	0.76	6076000	**87.1**	30	-	125	
165	Ho	1	2404563	1.22	2580000	**93.2**	30	-	125	
175	Lu	1	2054975	1.63	2136000	**96.2**	30	-	125	
209	Bi	1	2451003	1.66	2616000	**93.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\219SMPL.D\219SMPL.D#
Date Acquired: Sep 27 2011 11:52 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-6-A Vial Number: 2501
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.001**	ug/l	-0.01	304.7	5000	6	P	
23	**Na**	1	**1509.000**	ug/l	7,545.00	1.6	500000	45	A	
24	**Mg**	1	**35.150**	ug/l	175.75	3.2	500000	45	P	
27	**Al**	1	**0.906**	ug/l	4.53	35.8	500000	45	P	
31	**P**	1	**16.270**	ug/l	81.35	8.5	500000	45	P	
39	**K**	1	**84.540**	ug/l	422.70	3.7	500000	45	P	
44	**Ca**	1	**289.000**	ug/l	1,445.00	1.3	500000	45	P	
47	**Ti**	1	**0.117**	ug/l	0.59	22.8	5000	45	P	
51	**V**	1	**0.363**	ug/l	1.82	4.3	5000	45	P	
52	**Cr**	1	**0.096**	ug/l	0.48	12.3	5000	45	P	
55	**Mn**	1	**0.302**	ug/l	1.51	11.5	5000	45	P	
57	**Fe**	1	**8.597**	ug/l	42.99	6.1	500000	74	P	
59	**Co**	1	**0.006**	ug/l	0.03	64.1	5000	45	P	
60	**Ni**	1	**0.033**	ug/l	0.17	46.9	5000	74	P	
63	**Cu**	1	**0.257**	ug/l	1.29	8.1	5000	74	P	
66	**Zn**	1	**4.010**	ug/l	20.05	1.2	5000	74	P	
75	**As**	1	**49.280**	ug/l	246.40	0.3	5000	74	P	
78	**Se**	1	**0.128**	ug/l	0.64	62.5	5000	74	P	
88	**Sr**	1	**0.550**	ug/l	2.75	5.1	5000	74	P	
95	**Mo**	1	**0.036**	ug/l	0.18	28.4	5000	103	P	
109	**Ag**	1	**0.007**	ug/l	0.04	25.2	200	103	P	
111	**Cd**	1	**0.007**	ug/l	0.04	194.5	5000	103	P	
118	**Sn**	1	**0.173**	ug/l	0.87	15.9	5000	103	P	
123	**Sb**	1	**0.030**	ug/l	0.15	2.2	5000	103	P	
135	**Ba**	1	**0.081**	ug/l	0.40	14.8	5000	103	P	
200	**Hg**	1	**0.006**	ug/l	0.03	27.8	50	209	P	
205	**Tl**	1	**0.129**	ug/l	0.64	14.9	5000	103	P	
208	**Pb**	1	**0.174**	ug/l	0.87	8.0	5000	209	P	
238	**U**	1	**0.003**	ug/l	0.01	42.2	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	111443	1.55	174500	**63.9**	30 - 125	
45	Sc	1	1673968	1.18	2091000	**80.1**	30 - 125	
74	Ge	1	3829507	0.51	4536000	**84.4**	30 - 125	
103	Rh	1	5232525	0.99	6076000	**86.1**	30 - 125	
165	Ho	1	2396267	0.09	2580000	**92.9**	30 - 125	
175	Lu	1	2018511	1.48	2136000	**94.5**	30 - 125	
209	Bi	1	2473689	2.10	2616000	**94.6**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\220SMPL.D\220SMPL.D#
Date Acquired: Sep 27 2011 11:56 pm Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-7-A Vial Number: 2502
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.003**	ug/l	-0.02	169.1	5000	6	P	
23	**Na**	1	**1421.000**	ug/l	7,105.00	1.5	500000	45	A	
24	**Mg**	1	**543.000**	ug/l	2,715.00	2.6	500000	45	P	
27	**Al**	1	**3.818**	ug/l	19.09	3.0	500000	45	P	
31	**P**	1	**14.640**	ug/l	73.20	16.9	500000	45	P	
39	**K**	1	**96.780**	ug/l	483.90	4.4	500000	45	P	
44	**Ca**	1	**1788.000**	ug/l	8,940.00	1.6	500000	45	P	
47	**Ti**	1	**0.121**	ug/l	0.61	21.7	5000	45	P	
51	**V**	1	**0.963**	ug/l	4.81	2.5	5000	45	P	
52	**Cr**	1	**0.121**	ug/l	0.61	9.0	5000	45	P	
55	**Mn**	1	**0.390**	ug/l	1.95	1.6	5000	45	P	
57	**Fe**	1	**13.600**	ug/l	68.00	2.2	500000	74	P	
59	**Co**	1	**0.005**	ug/l	0.03	42.1	5000	45	P	
60	**Ni**	1	**0.046**	ug/l	0.23	15.3	5000	74	P	
63	**Cu**	1	**0.136**	ug/l	0.68	8.5	5000	74	P	
66	**Zn**	1	**15.840**	ug/l	79.20	0.5	5000	74	P	
75	**As**	1	**28.440**	ug/l	142.20	0.6	5000	74	P	
78	**Se**	1	**0.138**	ug/l	0.69	115.8	5000	74	P	
88	**Sr**	1	**6.148**	ug/l	30.74	1.3	5000	74	P	
95	**Mo**	1	**0.029**	ug/l	0.15	35.3	5000	103	P	
109	**Ag**	1	**0.005**	ug/l	0.03	3.0	200	103	P	
111	**Cd**	1	**0.007**	ug/l	0.03	123.9	5000	103	P	
118	**Sn**	1	**0.117**	ug/l	0.58	20.3	5000	103	P	
123	**Sb**	1	**0.015**	ug/l	0.08	26.2	5000	103	P	
135	**Ba**	1	**0.226**	ug/l	1.13	8.9	5000	103	P	
200	**Hg**	1	**0.005**	ug/l	0.02	74.2	50	209	P	
205	**Tl**	1	**0.083**	ug/l	0.41	22.3	5000	103	P	
208	**Pb**	1	**0.112**	ug/l	0.56	6.9	5000	209	P	
238	**U**	1	**0.002**	ug/l	0.01	31.6	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	106728	0.38	174500	**61.2**	30 - 125	
45	Sc	1	1660057	1.90	2091000	**79.4**	30 - 125	
74	Ge	1	3827646	0.38	4536000	**84.4**	30 - 125	
103	Rh	1	5286385	1.31	6076000	**87.0**	30 - 125	
165	Ho	1	2382757	0.48	2580000	**92.4**	30 - 125	
175	Lu	1	2023303	0.95	2136000	**94.7**	30 - 125	
209	Bi	1	2505467	0.73	2616000	**95.8**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\221SMPL.D\221SMPL.D#
Date Acquired: Sep 28 2011 12:01 am Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-8-A Vial Number: 2503
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.01	139.0	5000	6	P	
23	**Na**	1	**1881.000**	ug/l	9,405.00	0.3	500000	45	A	
24	**Mg**	1	**107.200**	ug/l	536.00	1.4	500000	45	P	
27	**Al**	1	**-1.038**	ug/l	-5.19	27.9	500000	45	P	
31	**P**	1	**5.157**	ug/l	25.79	42.8	500000	45	P	
39	**K**	1	**83.870**	ug/l	419.35	1.9	500000	45	P	
44	**Ca**	1	**519.700**	ug/l	2,598.50	1.1	500000	45	P	
47	**Ti**	1	**0.084**	ug/l	0.42	34.9	5000	45	P	
51	**V**	1	**0.386**	ug/l	1.93	2.2	5000	45	P	
52	**Cr**	1	**0.091**	ug/l	0.45	10.6	5000	45	P	
55	**Mn**	1	**0.149**	ug/l	0.74	10.8	5000	45	P	
57	**Fe**	1	**4.907**	ug/l	24.54	9.9	500000	74	P	
59	**Co**	1	**0.005**	ug/l	0.02	61.9	5000	45	P	
60	**Ni**	1	**0.007**	ug/l	0.04	244.0	5000	74	P	
63	**Cu**	1	**0.084**	ug/l	0.42	25.1	5000	74	P	
66	**Zn**	1	**4.711**	ug/l	23.56	1.6	5000	74	P	
75	**As**	1	**48.620**	ug/l	243.10	0.6	5000	74	P	
78	**Se**	1	**0.087**	ug/l	0.43	116.2	5000	74	P	
88	**Sr**	1	**1.483**	ug/l	7.42	4.5	5000	74	P	
95	**Mo**	1	**0.007**	ug/l	0.03	50.3	5000	103	P	
109	**Ag**	1	**0.004**	ug/l	0.02	44.0	200	103	P	
111	**Cd**	1	**0.005**	ug/l	0.02	187.3	5000	103	P	
118	**Sn**	1	**0.106**	ug/l	0.53	27.6	5000	103	P	
123	**Sb**	1	**0.026**	ug/l	0.13	27.3	5000	103	P	
135	**Ba**	1	**0.065**	ug/l	0.33	51.6	5000	103	P	
200	**Hg**	1	**0.004**	ug/l	0.02	27.5	50	209	P	
205	**Tl**	1	**0.067**	ug/l	0.34	17.4	5000	103	P	
208	**Pb**	1	**0.082**	ug/l	0.41	12.8	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	290.3	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	106962	1.20	174500	**61.3**	30	-	125	
45	Sc	1	1662512	1.17	2091000	**79.5**	30	-	125	
74	Ge	1	3798774	0.91	4536000	**83.7**	30	-	125	
103	Rh	1	5230814	1.12	6076000	**86.1**	30	-	125	
165	Ho	1	2387604	0.75	2580000	**92.5**	30	-	125	
175	Lu	1	2035786	0.65	2136000	**95.3**	30	-	125	
209	Bi	1	2488629	0.90	2616000	**95.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\222SMPL.D\222SMPL.D#
Date Acquired: Sep 28 2011 12:05 am Acq. Method: 00He_ALL.M
Sample Name: 580-28709-A-9-A Vial Number: 2504
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵖCHEM\1\7500\
3	ᵖCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.006**	ug/l	-0.03	68.9	5000	6	P	
23	**Na**	1	**1965.000**	ug/l	9,825.00	0.8	500000	45	A	
24	**Mg**	1	**64.540**	ug/l	322.70	1.0	500000	45	P	
27	**Al**	1	**0.174**	ug/l	0.87	260.9	500000	45	P	
31	**P**	1	**10.280**	ug/l	51.40	15.2	500000	45	P	
39	**K**	1	**101.400**	ug/l	507.00	5.1	500000	45	P	
44	**Ca**	1	**393.100**	ug/l	1,965.50	1.1	500000	45	P	
47	**Ti**	1	**0.110**	ug/l	0.55	8.8	5000	45	P	
51	**V**	1	**0.358**	ug/l	1.79	3.2	5000	45	P	
52	**Cr**	1	**0.092**	ug/l	0.46	1.1	5000	45	P	
55	**Mn**	1	**0.165**	ug/l	0.83	11.9	5000	45	P	
57	**Fe**	1	**6.223**	ug/l	31.12	2.3	500000	74	P	
59	**Co**	1	**0.005**	ug/l	0.03	31.8	5000	45	P	
60	**Ni**	1	**0.065**	ug/l	0.33	35.0	5000	74	P	
63	**Cu**	1	**0.102**	ug/l	0.51	9.7	5000	74	P	
66	**Zn**	1	**4.509**	ug/l	22.55	4.5	5000	74	P	
75	**As**	1	**49.240**	ug/l	246.20	0.9	5000	74	P	
78	**Se**	1	**0.174**	ug/l	0.87	33.2	5000	74	P	
88	**Sr**	1	**1.002**	ug/l	5.01	6.3	5000	74	P	
95	**Mo**	1	**0.027**	ug/l	0.14	20.6	5000	103	P	
109	**Ag**	1	**0.004**	ug/l	0.02	105.1	200	103	P	
111	**Cd**	1	**-0.003**	ug/l	-0.02	143.0	5000	103	P	
118	**Sn**	1	**0.070**	ug/l	0.35	20.4	5000	103	P	
123	**Sb**	1	**0.016**	ug/l	0.08	54.8	5000	103	P	
135	**Ba**	1	**0.055**	ug/l	0.27	47.7	5000	103	P	
200	**Hg**	1	**0.003**	ug/l	0.02	152.5	50	209	P	
205	**Tl**	1	**0.053**	ug/l	0.27	28.7	5000	103	P	
208	**Pb**	1	**0.096**	ug/l	0.48	14.9	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	17454.0	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	108878	2.68	174500	**62.4**	30	-	125	
45	Sc	1	1676035	1.96	2091000	**80.2**	30	-	125	
74	Ge	1	3793039	1.12	4536000	**83.6**	30	-	125	
103	Rh	1	5226503	0.84	6076000	**86.0**	30	-	125	
165	Ho	1	2371088	1.16	2580000	**91.9**	30	-	125	
175	Lu	1	2001903	0.71	2136000	**93.7**	30	-	125	
209	Bi	1	2460035	1.71	2616000	**94.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\223SMPL.D\223SMPL.D#
Date Acquired: Sep 28 2011 12:10 am Acq. Method: 00He_ALL.M
Sample Name: 580-28710-A-1-A Vial Number: 2505
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**-0.006**	ug/l	-0.03	69.2	5000	6	P	
23	**Na**	1	**1184.000**	ug/l	5,920.00	1.7	500000	45	A	
24	**Mg**	1	**514.000**	ug/l	2,570.00	2.1	500000	45	P	
27	**Al**	1	**3.224**	ug/l	16.12	6.8	500000	45	P	
31	**P**	1	**22.730**	ug/l	113.65	15.9	500000	45	P	
39	**K**	1	**270.400**	ug/l	1,352.00	2.9	500000	45	P	
44	**Ca**	1	**2338.000**	ug/l	11,690.00	1.1	500000	45	P	
47	**Ti**	1	**0.270**	ug/l	1.35	13.4	5000	45	P	
51	**V**	1	**1.920**	ug/l	9.60	2.8	5000	45	P	
52	**Cr**	1	**0.216**	ug/l	1.08	9.0	5000	45	P	
55	**Mn**	1	**0.488**	ug/l	2.44	2.7	5000	45	P	
57	**Fe**	1	**7.698**	ug/l	38.49	9.2	500000	74	P	
59	**Co**	1	**0.003**	ug/l	0.02	65.9	5000	45	P	
60	**Ni**	1	**-0.005**	ug/l	-0.02	101.1	5000	74	P	
63	**Cu**	1	**0.216**	ug/l	1.08	10.9	5000	74	P	
66	**Zn**	1	**1.716**	ug/l	8.58	5.9	5000	74	P	
75	**As**	1	**0.243**	ug/l	1.22	9.4	5000	74	P	
78	**Se**	1	**0.123**	ug/l	0.62	66.8	5000	74	P	
88	**Sr**	1	**18.820**	ug/l	94.10	1.3	5000	74	P	
95	**Mo**	1	**0.021**	ug/l	0.10	26.2	5000	103	P	
109	**Ag**	1	**0.003**	ug/l	0.01	104.2	200	103	P	
111	**Cd**	1	**0.003**	ug/l	0.01	761.3	5000	103	P	
118	**Sn**	1	**0.074**	ug/l	0.37	9.5	5000	103	P	
123	**Sb**	1	**0.004**	ug/l	0.02	21.5	5000	103	P	
135	**Ba**	1	**0.375**	ug/l	1.87	12.3	5000	103	P	
200	**Hg**	1	**0.001**	ug/l	0.01	176.0	50	209	P	
205	**Tl**	1	**0.048**	ug/l	0.24	22.2	5000	103	P	
208	**Pb**	1	**1.319**	ug/l	6.60	2.3	5000	209	P	
238	**U**	1	**0.000**	ug/l	0.00	2148.7	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	109895	1.51	174500	**63.0**	30	-	125	
45	Sc	1	1640144	0.82	2091000	**78.4**	30	-	125	
74	Ge	1	3784282	0.56	4536000	**83.4**	30	-	125	
103	Rh	1	5191298	0.71	6076000	**85.4**	30	-	125	
165	Ho	1	2384775	0.83	2580000	**92.4**	30	-	125	
175	Lu	1	2017728	1.01	2136000	**94.5**	30	-	125	
209	Bi	1	2509219	0.80	2616000	**95.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\224SMPL.D\224SMPL.D#
Date Acquired: Sep 28 2011 12:14 am Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**53.830**	ug/l	53.83	1.2	5000	6	P	
23	Na	1	**4726.000**	ug/l	4,726.00	2.7	500000	45	A	
24	Mg	1	**4740.000**	ug/l	4,740.00	2.2	500000	45	A	
27	Al	1	**462.800**	ug/l	462.80	3.1	500000	45	P	
31	P	1	**4581.000**	ug/l	4,581.00	1.6	500000	45	P	
39	K	1	**4949.000**	ug/l	4,949.00	1.2	500000	45	A	
44	Ca	1	**4967.000**	ug/l	4,967.00	1.7	500000	45	P	
47	Ti	1	**50.320**	ug/l	50.32	2.6	5000	45	P	
51	V	1	**49.530**	ug/l	49.53	2.0	5000	45	P	
52	Cr	1	**49.290**	ug/l	49.29	1.9	5000	45	P	
55	Mn	1	**51.440**	ug/l	51.44	1.0	5000	45	P	
57	Fe	1	**4946.000**	ug/l	4,946.00	0.1	500000	74	A	
59	Co	1	**50.260**	ug/l	50.26	2.1	5000	45	P	
60	Ni	1	**49.960**	ug/l	49.96	0.9	5000	74	P	
63	Cu	1	**50.050**	ug/l	50.05	1.3	5000	74	P	
66	Zn	1	**50.810**	ug/l	50.81	2.3	5000	74	P	
75	As	1	**50.150**	ug/l	50.15	1.2	5000	74	P	
78	Se	1	**49.260**	ug/l	49.26	1.4	5000	74	P	
88	Sr	1	**51.360**	ug/l	51.36	0.9	5000	74	P	
95	Mo	1	**49.180**	ug/l	49.18	0.4	5000	103	P	
109	Ag	1	**49.370**	ug/l	49.37	0.6	200	103	P	
111	Cd	1	**50.870**	ug/l	50.87	0.8	5000	103	P	
118	Sn	1	**51.260**	ug/l	51.26	0.8	5000	103	P	
123	Sb	1	**51.790**	ug/l	51.79	1.3	5000	103	P	
135	Ba	1	**53.330**	ug/l	53.33	0.4	5000	103	P	
200	Hg	1	**2.433**	ug/l	2.43	2.3	50	209	P	
205	Tl	1	**49.440**	ug/l	49.44	2.5	5000	103	P	
208	Pb	1	**49.680**	ug/l	49.68	2.5	5000	209	P	
238	U	1	**50.510**	ug/l	50.51	2.1	5000	209	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	112590	0.91	174500	**64.5**	30	-	125	
45	Sc	1	1699453	2.06	2091000	**81.3**	30	-	125	
74	Ge	1	3812993	0.86	4536000	**84.1**	30	-	125	
103	Rh	1	5119135	0.12	6076000	**84.3**	30	-	125	
165	Ho	1	2389955	1.53	2580000	**92.6**	30	-	125	
175	Lu	1	2008413	1.36	2136000	**94.0**	30	-	125	
209	Bi	1	2383273	1.90	2616000	**91.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\092711AM.B\225SMPL.D\225SMPL.D#
Date Acquired: Sep 28 2011 12:18 am Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 092611

Current Method: C:\ICPCHEM\1\METHODS\00He_REP.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\00He_REP.C
Last Cal. Update: Sep 28 2011 06:49 am
ISTD Ref File : C:\ICPCHEM\1\DATA\092711AM.B\005CALB.D\005CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.001**	ug/l	0.00	252.3	5000	6	P	
23	**Na**	1	**-10.000**	ug/l	-10.00	18.3	500000	45	P	
24	**Mg**	1	**0.080**	ug/l	0.08	43.6	500000	45	P	
27	**Al**	1	**-0.263**	ug/l	-0.26	110.6	500000	45	P	
31	**P**	1	**-7.574**	ug/l	-7.57	18.4	500000	45	P	
39	**K**	1	**-0.459**	ug/l	-0.46	553.8	500000	45	P	
44	**Ca**	1	**-1.202**	ug/l	-1.20	32.1	500000	45	P	
47	**Ti**	1	**0.030**	ug/l	0.03	61.8	5000	45	P	
51	**V**	1	**0.014**	ug/l	0.01	168.8	5000	45	P	
52	**Cr**	1	**0.135**	ug/l	0.14	18.2	5000	45	P	
55	**Mn**	1	**-0.001**	ug/l	0.00	1675.4	5000	45	P	
57	**Fe**	1	**2.344**	ug/l	2.34	12.6	500000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	67.8	5000	45	P	
60	**Ni**	1	**0.032**	ug/l	0.03	104.1	5000	74	P	
63	**Cu**	1	**-0.039**	ug/l	-0.04	33.6	5000	74	P	
66	**Zn**	1	**-0.049**	ug/l	-0.05	25.2	5000	74	P	
75	**As**	1	**0.003**	ug/l	0.00	161.2	5000	74	P	
78	**Se**	1	**0.227**	ug/l	0.23	57.2	5000	74	P	
88	**Sr**	1	**0.000**	ug/l	0.00	1510.7	5000	74	P	
95	**Mo**	1	**0.080**	ug/l	0.08	42.1	5000	103	P	
109	**Ag**	1	**0.004**	ug/l	0.00	26.4	200	103	P	
111	**Cd**	1	**0.002**	ug/l	0.00	567.8	5000	103	P	
118	**Sn**	1	**0.198**	ug/l	0.20	7.5	5000	103	P	
123	**Sb**	1	**0.038**	ug/l	0.04	41.2	5000	103	P	
135	**Ba**	1	**0.006**	ug/l	0.01	173.3	5000	103	P	
200	**Hg**	1	**0.008**	ug/l	0.01	47.9	50	209	P	
205	**Tl**	1	**0.344**	ug/l	0.34	11.7	5000	103	P	
208	**Pb**	1	**-0.017**	ug/l	-0.02	78.9	5000	209	P	
238	**U**	1	**0.013**	ug/l	0.01	12.1	5000	209	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	116107	0.79	174500	**66.5**	30	-	125	
45	Sc	1	1716251	2.55	2091000	**82.1**	30	-	125	
74	Ge	1	3838701	1.14	4536000	**84.6**	30	-	125	
103	Rh	1	5247141	1.22	6076000	**86.4**	30	-	125	
165	Ho	1	2393712	0.78	2580000	**92.8**	30	-	125	
175	Lu	1	2023107	2.48	2136000	**94.7**	30	-	125	
209	Bi	1	2484323	0.83	2616000	**95.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

092311-HG

Method: Hg Operator: Admin Date of Analysis: 23 Sep 2011 11:36:36

Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
STD 0	< 0.000	ug/l	-1.607	23 Sep 2011 12:14:58		1198	-	Std	Hg	0.000
STD 1	673	ug/l	0.556	23 Sep 2011 12:16:38		1199	-	Std	Hg	0.200
STD 2	3097	ug/l	0.030	23 Sep 2011 12:18:19		1200	-	Std	Hg	0.500
STD 3	12719	ug/l	0.270	23 Sep 2011 12:19:58		1201	-	Std	Hg	2.000
STD 4	31354	ug/l	0.226	23 Sep 2011 12:21:37		1202	-	Std	Hg	5.000
STD 5	63015	ug/l	0.099	23 Sep 2011 12:23:26		1203	-	Std	Hg	10.000

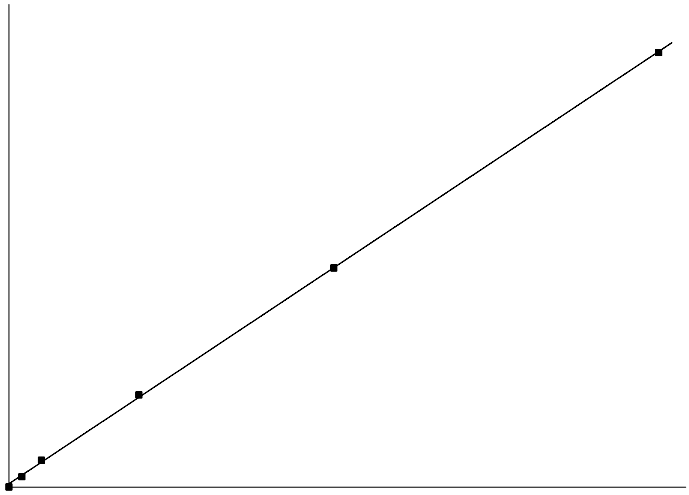
63015 µ Abs

A:0.0000e+000

B:1.5741e-004

C:6.4335e-002

R:0.9999132



Conc 10.0000

ICV	4.109	ug/l	0.118	23 Sep 2011 12:25:20		1204	Linear	CK STND	Hg	-
ICB	0.059	ug/l	0.435	23 Sep 2011 12:27:20		1205	Linear	CK STND	Hg	-
RL	0.253	ug/l	0.163	23 Sep 2011 12:29:10		1206	Linear	CK STND	Hg	-
ICV	4.052	ug/l	0.495	23 Sep 2011 13:29:11		1207	Linear	CK STND	Hg	-
ICB	0.064	ug/l	0.000	23 Sep 2011 13:30:47		1208	Linear	CK STND	Hg	-
CCV	5.417	ug/l	0.512	23 Sep 2011 13:33:45		1209	Linear	CK STND	Hg	-
CCB	0.030	ug/l	0.888	23 Sep 2011 13:35:21		1210	Linear	CK STND	Hg	-
MB 580-95932/21-A	0.016	ug/l	4.136	23 Sep 2011 13:37:13	TAC103 PB 95932	1211	Linear	SMPL	Hg	-
LCS 580-95932/22-A	2.114	ug/l	0.532	23 Sep 2011 13:38:51	TAC103 PB 95932	1212	Linear	SMPL	Hg	-
LCSD 580-95932/23-A	2.284	ug/l	0.142	23 Sep 2011 13:40:29	TAC103 PB 95932	1213	Linear	SMPL	Hg	-
LCSSRM 580-95932/24-A 10X	4.510	ug/l	0.358	23 Sep 2011 13:42:11	TAC103 PB 95932	1214	Linear	SMPL	Hg	-
580-28720-A-3-A	2.531	ug/l	0.280	23 Sep 2011 13:54:27	TAC103 PB 95932	1215	Linear	SMPL	Hg	-
CCV	5.406	ug/l	0.138	23 Sep 2011 13:56:30		1216	Linear	CK STND	Hg	-
CCB	-0.002	ug/l	-41.991	23 Sep 2011 13:58:12		1217	Linear	CK STND	Hg	-
580-28720-A-4-A	1.501	ug/l	0.394	23 Sep 2011 14:00:08	TAC103 PB 95932	1218	Linear	SMPL	Hg	-
580-28720-A-5-A	1.631	ug/l	0.460	23 Sep 2011 14:01:46	TAC103 PB 95932	1219	Linear	SMPL	Hg	-
580-28720-A-6-A	0.955	ug/l	0.209	23 Sep 2011 14:03:26	TAC103 PB 95932	1220	Linear	SMPL	Hg	-
580-28720-A-7-A	2.095	ug/l	0.393	23 Sep 2011 14:05:08	TAC103 PB 95932	1221	Linear	SMPL	Hg	-
580-28720-A-8-A	2.157	ug/l	0.216	23 Sep 2011 14:06:48	TAC103 PB 95932	1222	Linear	SMPL	Hg	-
580-28720-A-9-A	0.947	ug/l	0.389	23 Sep 2011 14:08:28	TAC103 PB 95932	1223	Linear	SMPL	Hg	-
580-28720-A-10-A	0.921	ug/l	0.079	23 Sep 2011 14:10:08	TAC103 PB 95932	1224	Linear	SMPL	Hg	-
580-28720-A-11-A	1.596	ug/l	0.074	23 Sep 2011 14:11:47	TAC103 PB 95932	1225	Linear	SMPL	Hg	-
580-28720-A-13-A	1.124	ug/l	0.442	23 Sep 2011 14:15:07	TAC103 PB 95932	1226	Linear	SMPL	Hg	-
CCV	5.655	ug/l	0.245	23 Sep 2011 14:17:05		1227	Linear	CK STND	Hg	-
CCB	-0.028	ug/l	-0.709	23 Sep 2011 14:18:44		1228	Linear	CK STND	Hg	-
580-28720-A-14-A	6.899	ug/l	0.163	23 Sep 2011 14:20:39	TAC103 PB 95932	1229	Linear	SMPL	Hg	-
580-28720-A-15-A	0.462	ug/l	0.660	23 Sep 2011 14:22:17	TAC103 PB 95932	1230	Linear	SMPL	Hg	-
580-28720-A-16-A	5.103	ug/l	0.746	23 Sep 2011 14:24:10	TAC103 PB 95932	1231	Linear	SMPL	Hg	-
580-28720-A-17-A	0.687	ug/l	0.104	23 Sep 2011 14:25:49	TAC103 PB 95932	1232	Linear	SMPL	Hg	-
CCV	5.694	ug/l	0.171	23 Sep 2011 14:27:42		1233	Linear	CK STND	Hg	-
CCB	0.028	ug/l	3.447	23 Sep 2011 14:29:21		1234	Linear	CK STND	Hg	-
MB 580-95944/20-A	0.152	ug/l	0.170	23 Sep 2011 14:31:16	TAC103 PB 95944	1235	Linear	SMPL	Hg	-
LCS 580-95944/21-A	2.369	ug/l	0.130	23 Sep 2011 14:32:53	TAC103 PB 95944	1236	Linear	SMPL	Hg	-
LCSD 580-95944/22-A	2.275	ug/l	0.503	23 Sep 2011 14:34:30	TAC103 PB 95944	1237	Linear	SMPL	Hg	-
CCV	5.757	ug/l	0.099	23 Sep 2011 14:43:43		1238	Linear	CK STND	Hg	-
CCB	0.044	ug/l	0.450	23 Sep 2011 14:45:19		1239	Linear	CK STND	Hg	-
MB 580-95944/20-A	0.120	ug/l	0.215	23 Sep 2011 14:47:12	TAC103 PB 95944	1240	Linear	SMPL	Hg	-
LCS 580-95944/21-A	2.324	ug/l	0.638	23 Sep 2011 14:48:49	TAC103 PB 95944	1241	Linear	SMPL	Hg	-
LCSD 580-95944/22-A	2.287	ug/l	0.388	23 Sep 2011 14:50:25	TAC103 PB 95944	1242	Linear	SMPL	Hg	-
LCSSRM 580-95944/23-A 10X	4.480	ug/l	0.277	23 Sep 2011 14:52:12	TAC103 PB 95944	1243	Linear	SMPL	Hg	-
580-28694-H-1-A	0.381	ug/l	0.371	23 Sep 2011 14:53:57	TAC103 PB 95944	1244	Linear	SMPL	Hg	-
580-28694-H-1-B DU	0.318	ug/l	0.168	23 Sep 2011 14:55:47	TAC103 PB 95944	1245	Linear	SMPL	Hg	-
580-28694-H-1-C MS	2.720	ug/l	0.463	23 Sep 2011 14:57:26	TAC103 PB 95944	1246	Linear	SMPL	Hg	-
580-28694-H-1-D MSD	2.731	ug/l	0.430	23 Sep 2011 14:59:05	TAC103 PB 95944	1262	Linear	SMPL	Hg	-
580-28694-B-2-A	0.390	ug/l	0.099	23 Sep 2011 15:00:53	TAC103 PB 95944	1263	Linear	SMPL	Hg	-
580-28694-B-3-A	0.469	ug/l	0.165	23 Sep 2011 15:02:40	TAC103 PB 95944	1264	Linear	SMPL	Hg	-
CCV	5.559	ug/l	0.218	23 Sep 2011 15:04:20		1265	Linear	CK STND	Hg	-
CCB	-0.016	ug/l	-4.005	23 Sep 2011 15:05:58		1266	Linear	CK STND	Hg	-
580-28694-K-4-A	0.495	ug/l	0.292	23 Sep 2011 15:07:53	TAC103 PB 95944	1267	Linear	SMPL	Hg	-
580-28694-H-6-A	0.516	ug/l	0.462	23 Sep 2011 15:09:31	TAC103 PB 95944	1268	Linear	SMPL	Hg	-
580-28694-B-7-A	0.175	ug/l	0.073	23 Sep 2011 15:11:11	TAC103 PB 95944	1269	Linear	SMPL	Hg	-
580-28739-D-1-A	0.142	ug/l	0.227	23 Sep 2011 15:12:49	TAC103 PB 95944	1270	Linear	SMPL	Hg	-
580-28739-D-2-A	0.208	ug/l	0.155	23 Sep 2011 15:14:27	TAC103 PB 95944	1271	Linear	SMPL	Hg	-
580-28739-C-3-A	0.329	ug/l	0.513	23 Sep 2011 15:16:04	TAC103 PB 95944	1272	Linear	SMPL	Hg	-
580-28739-C-4-A	0.309	ug/l	0.689	23 Sep 2011 15:17:41	TAC103 PB 95944	1273	Linear	SMPL	Hg	-
580-28739-D-5-A	0.187	ug/l	0.173	23 Sep 2011 15:19:18	TAC103 PB 95944	1274	Linear	SMPL	Hg	-
580-28739-C-6-A	0.195	ug/l	0.266	23 Sep 2011 15:20:56	TAC103 PB 95944	1275	Linear	SMPL	Hg	-
580-28737-B-2-A	0.646	ug/l	0.340	23 Sep 2011 15:22:34	TAC103 PB 95944	1276	Linear	SMPL	Hg	-
CCV	5.756	ug/l	0.100	23 Sep 2011 15:24:11		1277	Linear	CK STND	Hg	-
CCB	-0.008	ug/l	-1.691	23 Sep 2011 15:25:49		1278	Linear	CK STND	Hg	-
580-28742-A-1-A	0.477	ug/l	0.082	23 Sep 2011 15:27:45	TAC103 PB 95944	1279	Linear	SMPL	Hg	-
580-28742-A-2-A	1.059	ug/l	0.067	23 Sep 2011 15:29:23	TAC103 PB 95944	1280	Linear	SMPL	Hg	-
CCV	5.862	ug/l	0.789	23 Sep 2011 15:31:02		1281	Linear	CK STND	Hg	-
CCB	-0.042	ug/l	-2.591	23 Sep 2011 15:32:41		1282	Linear	CK STND	Hg	-
CCV	5.657	ug/l	0.385	23 Sep 2011 15:36:13		1283	Linear	CK STND	Hg	-
CCB	0.063	ug/l	0.614	23 Sep 2011 15:37:50		1284	Linear	CK STND	Hg	-
580-28720-A-1-A 10X	1.454	ug/l	0.247	23 Sep 2011 15:39:42	95932	1285	Linear	SMPL	Hg	-
580-28720-A-1-B DU 10X	1.179	ug/l	0.460	23 Sep 2011 15:41:20	95932	1286	Linear	SMPL	Hg	-
580-28720-A-1-C MS 10X	1.407	ug/l	0.215	23 Sep 2011 15:43:03	95932	1287	Linear	SMPL	Hg	-
580-28720-A-1-D MSD 10X	1.442	ug/l	0.363	23 Sep 2011 15:44:43	95932	1288	Linear	SMPL	Hg	-
580-28720-A-2-A 10X	1.061	ug/l	0.500	23 Sep 2011 15:46:23	95932	1289	Linear	SMPL	Hg	-
580-28720-A-12-A 10X	0.870	ug/l	0.137	23 Sep 2011 15:48:05	95932	1290	Linear	SMPL	Hg	-
580-28535-A-1-B 10X	0.082	ug/l	0.566	23 Sep 2011 15:49:45	95944	1291	Linear	SMPL	Hg	-
CCV	5.808	ug/l	0.111	23 Sep 2011 15:51:25		1292	Linear	CK STND	Hg	-
CCB	0.041	ug/l	0.798	23 Sep 2011 15:53:02		1293	Linear	CK STND	Hg	-

092811-HG

Method: Hg Operator: Admin Date of Analysis: 28 Sep 2011 11:57:28

Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
STD 0	158	ug/l	1.073	28 Sep 2011 12:10:38		1737	-	Std	Hg	0.000
STD 1	1622	ug/l	0.610	28 Sep 2011 12:12:16		1738	-	Std	Hg	0.200
STD 2	3655	ug/l	0.295	28 Sep 2011 12:13:54		1739	-	Std	Hg	0.500
STD 3	14816	ug/l	0.095	28 Sep 2011 12:15:33		1740	-	Std	Hg	2.000
STD 4	35988	ug/l	0.068	28 Sep 2011 12:17:13		1741	-	Std	Hg	5.000
STD 5	72585	ug/l	0.197	28 Sep 2011 12:18:56		1742	-	Std	Hg	10.000

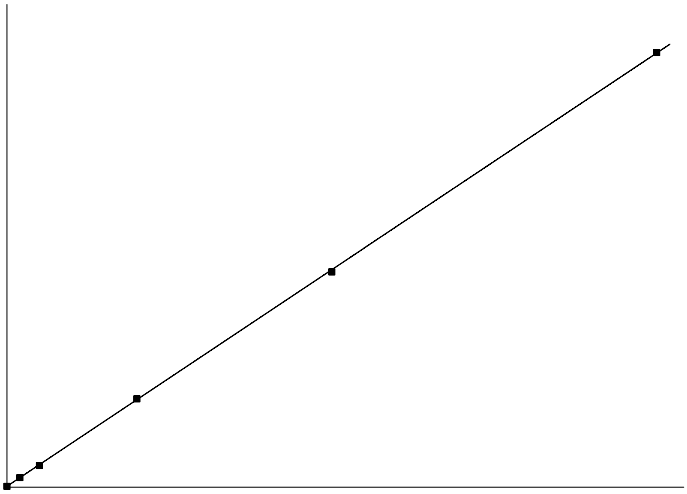
72585 µ Abs

A:0.0000e+000

B:1.3824e-004

C:-1.8005e-002

R:0.9999790



Conc 10.0000

ICV	4.315	ug/l	0.182	28 Sep 2011 12:20:48		1743	Linear	CK STND	Hg	-
ICB	-0.076	ug/l	-0.298	28 Sep 2011 12:22:50		1744	Linear	CK STND	Hg	-
RL	0.180	ug/l	0.382	28 Sep 2011 12:24:42		1745	Linear	CK STND	Hg	-
CCV	4.746	ug/l	0.487	28 Sep 2011 12:57:03		1746	Linear	CK STND	Hg	-
CCB	-0.064	ug/l	-0.447	28 Sep 2011 12:58:39		1747	Linear	CK STND	Hg	-
MB 580-96254/21-A	< 0.000	ug/l	-5.528	28 Sep 2011 13:00:29	TAC103 PB 96254	1748	Linear	SMPL	Hg	-
LCS 580-96254/22-A	1.915	ug/l	0.527	28 Sep 2011 13:02:06	TAC103 PB 96254	1749	Linear	SMPL	Hg	-
LCSD 580-96254/23-A	1.887	ug/l	0.167	28 Sep 2011 13:03:43	TAC103 PB 96254	1750	Linear	SMPL	Hg	-
LCSSRM 580-96254/24-A 10X	4.152	ug/l	0.172	28 Sep 2011 13:05:27	TAC103 PB 96254	1751	Linear	SMPL	Hg	-
580-28720-A-19-C	2.071	ug/l	0.252	28 Sep 2011 13:07:08	TAC103 PB 96254	1752	Linear	SMPL	Hg	-
580-28720-A-19-D DU	1.735	ug/l	0.611	28 Sep 2011 13:09:01	TAC103 PB 96254	1753	Linear	SMPL	Hg	-
580-28720-A-19-E MS	3.642	ug/l	0.698	28 Sep 2011 13:10:46	TAC103 PB 96254	1754	Linear	SMPL	Hg	-
580-28720-A-19-F MSD	3.865	ug/l	0.432	28 Sep 2011 13:12:29	TAC103 PB 96254	1755	Linear	SMPL	Hg	-
580-28720-A-20-C	1.213	ug/l	0.136	28 Sep 2011 13:14:21	TAC103 PB 96254	1756	Linear	SMPL	Hg	-
580-28720-A-21-C	1.455	ug/l	0.404	28 Sep 2011 13:16:12	TAC103 PB 96254	1757	Linear	SMPL	Hg	-
CCV	4.474	ug/l	0.163	28 Sep 2011 13:17:53		1758	Linear	CK STND	Hg	-
CCB	-0.063	ug/l	-0.180	28 Sep 2011 13:19:33		1759	Linear	CK STND	Hg	-
580-28720-A-22-C	1.992	ug/l	0.604	28 Sep 2011 13:21:24	TAC103 PB 96254	1760	Linear	SMPL	Hg	-
580-28720-A-23-C	1.203	ug/l	0.210	28 Sep 2011 13:23:02	TAC103 PB 96254	1761	Linear	SMPL	Hg	-
580-28720-A-24-C	0.637	ug/l	0.611	28 Sep 2011 13:24:48	TAC103 PB 96254	1762	Linear	SMPL	Hg	-
580-28720-A-25-C	2.224	ug/l	0.554	28 Sep 2011 13:26:27	TAC103 PB 96254	1763	Linear	SMPL	Hg	-
580-28720-A-26-C	0.863	ug/l	0.040	28 Sep 2011 13:28:06	TAC103 PB 96254	1764	Linear	SMPL	Hg	-
580-28720-A-27-C	2.131	ug/l	0.183	28 Sep 2011 13:29:50	TAC103 PB 96254	1765	Linear	SMPL	Hg	-
580-28720-A-28-C	1.193	ug/l	0.336	28 Sep 2011 13:31:29	TAC103 PB 96254	1766	Linear	SMPL	Hg	-
580-28720-A-29-C	1.018	ug/l	0.109	28 Sep 2011 13:33:13	TAC103 PB 96254	1767	Linear	SMPL	Hg	-
580-28720-A-30-C	1.212	ug/l	0.212	28 Sep 2011 13:34:52	TAC103 PB 96254	1768	Linear	SMPL	Hg	-
580-28720-A-31-C	1.109	ug/l	1.035	28 Sep 2011 13:36:32	TAC103 PB 96254	1769	Linear	SMPL	Hg	-
CCV	4.816	ug/l	0.024	28 Sep 2011 13:38:11		1770	Linear	CK STND	Hg	-
CCB	-0.068	ug/l	-0.167	28 Sep 2011 13:39:51		1771	Linear	CK STND	Hg	-
580-28720-A-32-C	1.916	ug/l	0.024	28 Sep 2011 13:41:44	TAC103 PB 96254	1772	Linear	SMPL	Hg	-
580-28720-A-34-C	0.425	ug/l	0.252	28 Sep 2011 13:45:07	TAC103 PB 96254	1773	Linear	SMPL	Hg	-
580-28720-A-35-I	1.094	ug/l	0.342	28 Sep 2011 13:47:17	TAC103 PB 96254	1774	Linear	SMPL	Hg	-
CCV	4.897	ug/l	0.264	28 Sep 2011 13:48:58		1775	Linear	CK STND	Hg	-
CCB	-0.077	ug/l	0.000	28 Sep 2011 13:50:37		1776	Linear	CK STND	Hg	-
MB 580-96255/12-A	< 0.000	ug/l	-1.282	28 Sep 2011 13:52:30	TAC103 PB 96255	1777	Linear	SMPL	Hg	-
LCS 580-96255/13-A	1.933	ug/l	0.202	28 Sep 2011 13:54:07	TAC103 PB 96255	1778	Linear	SMPL	Hg	-
LCSD 580-96255/14-A	1.974	ug/l	0.538	28 Sep 2011 13:55:44	TAC103 PB 96255	1779	Linear	SMPL	Hg	-
LCSSRM 580-96255/15-A 10X	3.254	ug/l	0.299	28 Sep 2011 13:57:27	TAC103 PB 96255	1780	Linear	SMPL	Hg	-
580-28720-A-36-C	2.018	ug/l	0.048	28 Sep 2011 13:59:10	TAC103 PB 96255	1781	Linear	SMPL	Hg	-
580-28720-A-36-D DU	1.919	ug/l	0.544	28 Sep 2011 14:01:00	TAC103 PB 96255	1782	Linear	SMPL	Hg	-
580-28720-A-36-E MS	4.063	ug/l	0.127	28 Sep 2011 14:02:44	TAC103 PB 96255	1783	Linear	SMPL	Hg	-
580-28720-A-36-F MSD	4.113	ug/l	0.221	28 Sep 2011 14:04:28	TAC103 PB 96255	1784	Linear	SMPL	Hg	-
580-28720-A-37-C	4.532	ug/l	0.291	28 Sep 2011 14:06:19	TAC103 PB 96255	1785	Linear	SMPL	Hg	-
580-28720-A-38-C	3.609	ug/l	0.151	28 Sep 2011 14:08:10	TAC103 PB 96255	1786	Linear	SMPL	Hg	-
CCV	4.856	ug/l	0.191	28 Sep 2011 14:10:03		1787	Linear	CK STND	Hg	-
CCB	-0.066	ug/l	-0.260	28 Sep 2011 14:11:51		1788	Linear	CK STND	Hg	-
580-28720-A-39-C	1.001	ug/l	0.468	28 Sep 2011 14:13:46	TAC103 PB 96255	1789	Linear	SMPL	Hg	-
580-28720-A-40-C	7.026	ug/l	0.052	28 Sep 2011 14:15:24	TAC103 PB 96255	1790	Linear	SMPL	Hg	-
580-28720-A-41-C	5.086	ug/l	0.461	28 Sep 2011 14:17:05	TAC103 PB 96255	1791	Linear	SMPL	Hg	-
580-28720-A-42-C	6.599	ug/l	0.252	28 Sep 2011 14:19:01	TAC103 PB 96255	1792	Linear	SMPL	Hg	-
580-28720-A-18-I	9.536	ug/l	0.195	28 Sep 2011 14:20:57	TAC103 PB 96255	1793	Linear	SMPL	Hg	-
580-28810-B-1-A	2.134	ug/l	0.674	28 Sep 2011 14:22:52	TAC103 PB 96255	1794	Linear	SMPL	Hg	-
580-28810-A-2-A	2.052	ug/l	0.738	28 Sep 2011 14:24:50	TAC103 PB 96255	1795	Linear	SMPL	Hg	-
580-28810-A-3-A	0.708	ug/l	0.033	28 Sep 2011 14:26:35	TAC103 PB 96255	1796	Linear	SMPL	Hg	-
580-28810-B-4-A	5.844	ug/l	0.269	28 Sep 2011 14:28:17	TAC103 PB 96255	1797	Linear	SMPL	Hg	-
CCV	4.873	ug/l	0.354	28 Sep 2011 14:29:57		1798	Linear	CK STND	Hg	-
CCB	-0.074	ug/l	-0.384	28 Sep 2011 14:31:53		1799	Linear	CK STND	Hg	-
580-28810-A-5-A	2.127	ug/l	0.059	28 Sep 2011 14:33:50	TAC103 PB 96255	1800	Linear	SMPL	Hg	-
580-28810-B-6-A	1.824	ug/l	0.031	28 Sep 2011 14:35:27	TAC103 PB 96255	1801	Linear	SMPL	Hg	-
580-28720-A-33-C 10X	1.386	ug/l	0.407	28 Sep 2011 14:37:11		1802	Linear	SMPL	Hg	-
CCV	4.964	ug/l	0.198	28 Sep 2011 14:38:54		1803	Linear	CK STND	Hg	-
CCB	-0.074	ug/l	-0.303	28 Sep 2011 14:40:35		1804	Linear	CK STND	Hg	-
CCV	5.067	ug/l	0.353	28 Sep 2011 16:20:44		1805	Linear	CK STND	Hg	-
CCB	-0.058	ug/l	-0.675	28 Sep 2011 16:22:20		1806	Linear	CK STND	Hg	-
MB 580-96344/7-A	< 0.000	ug/l	-3.232	28 Sep 2011 16:24:14	TAC103 PB 96344	1807	Linear	SMPL	Hg	-
LCS 580-96344/8-A	1.990	ug/l	0.105	28 Sep 2011 16:25:51	TAC103 PB 96344	1808	Linear	SMPL	Hg	-
LCSD 580-96344/9-A	1.857	ug/l	0.749	28 Sep 2011 16:27:28	TAC103 PB 96344	1809	Linear	SMPL	Hg	-
580-28829-A-3-F	< 0.000	ug/l	-0.827	28 Sep 2011 16:29:12	TAC103 PB 96344	1810	Linear	SMPL	Hg	-
580-28829-A-3-G DU	< 0.000	ug/l	-0.338	28 Sep 2011 16:30:56	TAC103 PB 96344	1811	Linear	SMPL	Hg	-
580-28829-A-3-H MS	2.008	ug/l	0.321	28 Sep 2011 16:32:33	TAC103 PB 96344	1812	Linear	SMPL	Hg	-
580-28829-A-3-I MSD	1.972	ug/l	0.077	28 Sep 2011 16:34:10	TAC103 PB 96344	1813	Linear	SMPL	Hg	-
580-28829-A-1-C	1.598	ug/l	0.232	28 Sep 2011 16:35:54	TAC103 PB 96344	1814	Linear	SMPL	Hg	-
580-28829-A-2-C	< 0.000	ug/l	-1.405	28 Sep 2011 16:37:38	TAC103 PB 96344	1815	Linear	SMPL	Hg	-
CCV	5.141	ug/l	0.310	28 Sep 2011 16:39:20		1816	Linear	CK STND	Hg	-
CCB	-0.066	ug/l	-0.170	28 Sep 2011 16:40:57		1817	Linear	CK STND	Hg	-

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95937 Batch Start Date: 09/22/11 16:59 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28720-A-1	76 S-2 0-6	3050B, 6010B	T	1.1195 g	50 mL				
580-28720-A-1 DU	76 S-2 0-6	3050B, 6010B	T	1.0429 g	50 mL				
580-28720-A-1 MS	76 S-2 0-6	3050B, 6010B	T	1.0815 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-1 MSD	76 S-2 0-6	3050B, 6010B	T	1.0507 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-2	76 S-1 0-6	3050B, 6010B	T	1.0099 g	50 mL				
580-28720-A-3	76-9	3050B, 6010B	T	1.0418 g	50 mL				
580-28720-A-4	76-14	3050B, 6010B	T	1.0695 g	50 mL				
580-28720-A-5	76-15	3050B, 6010B	T	1.1109 g	50 mL				
580-28720-A-6	76-12	3050B, 6010B	T	1.0597 g	50 mL				
580-28720-A-7	76-18	3050B, 6010B	T	1.0217 g	50 mL				
580-28720-A-8	76-17	3050B, 6010B	T	1.0893 g	50 mL				
580-28720-A-9	76-13	3050B, 6010B	T	1.0238 g	50 mL				
580-28720-A-10	76-16	3050B, 6010B	T	1.0402 g	50 mL				
580-28720-A-11	76-10	3050B, 6010B	T	1.0069 g	50 mL				
580-28720-A-12	76-1	3050B, 6010B	T	1.0129 g	50 mL				
580-28720-A-13	76-4	3050B, 6010B	T	1.0669 g	50 mL				
580-28720-A-14	76-11	3050B, 6010B	T	1.0491 g	50 mL				
580-28720-A-15	76-5	3050B, 6010B	T	1.0835 g	50 mL				
580-28720-A-16	76-3	3050B, 6010B	T	1.0043 g	50 mL				
580-28720-A-17	76-6	3050B, 6010B	T	1.0245 g	50 mL				
MB 580-95937/21		3050B, 6010B		1.0 g	50 mL				
LCS 580-95937/22		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-95937/23		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-95937/24		3050B, 6010B		0.5041 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-1	76 S-2 0-6	3050B, 6010B	T						
580-28720-A-1 DU	76 S-2 0-6	3050B, 6010B	T						
580-28720-A-1 MS	76 S-2 0-6	3050B, 6010B	T	1 mL					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95937 Batch Start Date: 09/22/11 16:59 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-1 MSD	76 S-2 0-6	3050B, 6010B	T	1 mL					
580-28720-A-2	76 S-1 0-6	3050B, 6010B	T						
580-28720-A-3	76-9	3050B, 6010B	T						
580-28720-A-4	76-14	3050B, 6010B	T						
580-28720-A-5	76-15	3050B, 6010B	T						
580-28720-A-6	76-12	3050B, 6010B	T						
580-28720-A-7	76-18	3050B, 6010B	T						
580-28720-A-8	76-17	3050B, 6010B	T						
580-28720-A-9	76-13	3050B, 6010B	T						
580-28720-A-10	76-16	3050B, 6010B	T						
580-28720-A-11	76-10	3050B, 6010B	T						
580-28720-A-12	76-1	3050B, 6010B	T						
580-28720-A-13	76-4	3050B, 6010B	T						
580-28720-A-14	76-11	3050B, 6010B	T						
580-28720-A-15	76-5	3050B, 6010B	T						
580-28720-A-16	76-3	3050B, 6010B	T						
580-28720-A-17	76-6	3050B, 6010B	T						
MB 580-95937/21		3050B, 6010B							
LCS 580-95937/22		3050B, 6010B		1 mL					
LCSD 580-95937/23		3050B, 6010B		1 mL					
LCSSRM 580-95937/24		3050B, 6010B			0.5041 g				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95937 Batch Start Date: 09/22/11 16:59 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date:

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	795223
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38008
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96028 Batch Start Date: 09/23/11 14:50 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/23/11 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28720-A-18	76-2	3050B, 6010B	T	1.0277 g	50 mL				
580-28720-A-18 DU	76-2	3050B, 6010B	T	1.0375 g	50 mL				
580-28720-A-18 MS	76-2	3050B, 6010B	T	1.0350 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-18 MSD	76-2	3050B, 6010B	T	1.0500 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-19	W-22	3050B, 6010B	T	1.0149 g	50 mL				
580-28720-A-20	W-3	3050B, 6010B	T	1.0332 g	50 mL				
580-28720-A-21	W-19	3050B, 6010B	T	1.1052 g	50 mL				
580-28720-A-22	W-2	3050B, 6010B	T	1.0856 g	50 mL				
580-28720-A-23	W-16	3050B, 6010B	T	1.0839 g	50 mL				
580-28720-A-24	W-7	3050B, 6010B	T	1.0595 g	50 mL				
580-28720-A-25	W-21	3050B, 6010B	T	1.1227 g	50 mL				
580-28720-A-26	W-23	3050B, 6010B	T	1.0654 g	50 mL				
580-28720-A-27	W-18	3050B, 6010B	T	1.0378 g	50 mL				
580-28720-A-28	W-1	3050B, 6010B	T	1.1199 g	50 mL				
580-28720-A-29	W-17	3050B, 6010B	T	1.0412 g	50 mL				
580-28720-A-30	G-9	3050B, 6010B	T	1.0549 g	50 mL				
580-28720-A-31	G-12	3050B, 6010B	T	1.1415 g	50 mL				
580-28720-A-32	G-8	3050B, 6010B	T	1.0352 g	50 mL				
580-28720-A-33	76 S-2 6-12	3050B, 6010B	T	1.0037 g	50 mL				
580-28720-A-34	G-7	3050B, 6010B	T	1.1154 g	50 mL				
MB 580-96028/21		3050B, 6010B		1.0 g	50 mL				
LCS 580-96028/22		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-96028/23		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-96028/24		3050B, 6010B		0.5046 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-18	76-2	3050B, 6010B	T						
580-28720-A-18 DU	76-2	3050B, 6010B	T						
580-28720-A-18 MS	76-2	3050B, 6010B	T	1 mL					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96028 Batch Start Date: 09/23/11 14:50 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/23/11 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-18 MSD	76-2	3050B, 6010B	T	1 mL					
580-28720-A-19	W-22	3050B, 6010B	T						
580-28720-A-20	W-3	3050B, 6010B	T						
580-28720-A-21	W-19	3050B, 6010B	T						
580-28720-A-22	W-2	3050B, 6010B	T						
580-28720-A-23	W-16	3050B, 6010B	T						
580-28720-A-24	W-7	3050B, 6010B	T						
580-28720-A-25	W-21	3050B, 6010B	T						
580-28720-A-26	W-23	3050B, 6010B	T						
580-28720-A-27	W-18	3050B, 6010B	T						
580-28720-A-28	W-1	3050B, 6010B	T						
580-28720-A-29	W-17	3050B, 6010B	T						
580-28720-A-30	G-9	3050B, 6010B	T						
580-28720-A-31	G-12	3050B, 6010B	T						
580-28720-A-32	G-8	3050B, 6010B	T						
580-28720-A-33	76 S-2 6-12	3050B, 6010B	T						
580-28720-A-34	G-7	3050B, 6010B	T						
MB 580-96028/21		3050B, 6010B							
LCS 580-96028/22		3050B, 6010B		1 mL					
LCSD 580-96028/23		3050B, 6010B		1 mL					
LCSSRM 580-96028/24		3050B, 6010B			0.5046 g				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96028 Batch Start Date: 09/23/11 14:50 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/23/11 17:10

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	795223
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96039 Batch Start Date: 09/24/11 14:30 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/24/11 16:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28720-A-35	G-11	3050B, 6010B	T	1.0046 g	50 mL				
580-28720-A-35 DU	G-11	3050B, 6010B	T	1.0533 g	50 mL				
580-28720-A-35 MS	G-11	3050B, 6010B	T	1.0382 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-35 MSD	G-11	3050B, 6010B	T	1.0580 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-36	G-6	3050B, 6010B	T	1.1423 g	50 mL				
580-28720-A-37	74 S-2 0-6	3050B, 6010B	T	1.0313 g	50 mL				
580-28720-A-38	74 S-1 0-6	3050B, 6010B	T	1.0692 g	50 mL				
580-28720-A-39	G-10	3050B, 6010B	T	1.1180 g	50 mL				
580-28720-A-40	Emma 2 S-2 6-12	3050B, 6010B	T	1.1531 g	50 mL				
580-28720-A-41	Emma 2 S-1 0-6	3050B, 6010B	T	1.1379 g	50 mL				
580-28720-A-42	Emma 2 S-2 0-6	3050B, 6010B	T	1.0146 g	50 mL				
MB 580-96039/12		3050B, 6010B		1.0 g	50 mL				
LCS 580-96039/13		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-96039/14		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-96039/15		3050B, 6010B		0.5034 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-35	G-11	3050B, 6010B	T						
580-28720-A-35 DU	G-11	3050B, 6010B	T						
580-28720-A-35 MS	G-11	3050B, 6010B	T	1 mL					
580-28720-A-35 MSD	G-11	3050B, 6010B	T	1 mL					
580-28720-A-36	G-6	3050B, 6010B	T						
580-28720-A-37	74 S-2 0-6	3050B, 6010B	T						
580-28720-A-38	74 S-1 0-6	3050B, 6010B	T						
580-28720-A-39	G-10	3050B, 6010B	T						
580-28720-A-40	Emma 2 S-2 6-12	3050B, 6010B	T						
580-28720-A-41	Emma 2 S-1 0-6	3050B, 6010B	T						
580-28720-A-42	Emma 2 S-2 0-6	3050B, 6010B	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96039 Batch Start Date: 09/24/11 14:30 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/24/11 16:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
MB 580-96039/12		3050B, 6010B							
LCS 580-96039/13		3050B, 6010B		1 mL					
LCSD 580-96039/14		3050B, 6010B		1 mL					
LCSSRM 580-96039/15		3050B, 6010B			0.5034 g				

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	795223
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95937 Batch Start Date: 09/22/11 16:59 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28720-A-1	76 S-2 0-6	3050B, 6020	T	1.1195 g	50 mL				
580-28720-A-1 DU	76 S-2 0-6	3050B, 6020	T	1.0429 g	50 mL				
580-28720-A-1 MS	76 S-2 0-6	3050B, 6020	T	1.0815 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-1 MSD	76 S-2 0-6	3050B, 6020	T	1.0507 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-2	76 S-1 0-6	3050B, 6020	T	1.0099 g	50 mL				
580-28720-A-3	76-9	3050B, 6020	T	1.0418 g	50 mL				
580-28720-A-4	76-14	3050B, 6020	T	1.0695 g	50 mL				
580-28720-A-5	76-15	3050B, 6020	T	1.1109 g	50 mL				
580-28720-A-6	76-12	3050B, 6020	T	1.0597 g	50 mL				
580-28720-A-7	76-18	3050B, 6020	T	1.0217 g	50 mL				
580-28720-A-8	76-17	3050B, 6020	T	1.0893 g	50 mL				
580-28720-A-9	76-13	3050B, 6020	T	1.0238 g	50 mL				
580-28720-A-10	76-16	3050B, 6020	T	1.0402 g	50 mL				
580-28720-A-11	76-10	3050B, 6020	T	1.0069 g	50 mL				
580-28720-A-12	76-1	3050B, 6020	T	1.0129 g	50 mL				
580-28720-A-13	76-4	3050B, 6020	T	1.0669 g	50 mL				
580-28720-A-14	76-11	3050B, 6020	T	1.0491 g	50 mL				
580-28720-A-15	76-5	3050B, 6020	T	1.0835 g	50 mL				
580-28720-A-16	76-3	3050B, 6020	T	1.0043 g	50 mL				
580-28720-A-17	76-6	3050B, 6020	T	1.0245 g	50 mL				
MB 580-95937/21		3050B, 6020		1.0 g	50 mL				
LCS 580-95937/22		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-95937/23		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-95937/24		3050B, 6020		0.5041 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-1	76 S-2 0-6	3050B, 6020	T						
580-28720-A-1 DU	76 S-2 0-6	3050B, 6020	T						
580-28720-A-1 MS	76 S-2 0-6	3050B, 6020	T	1 mL					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95937 Batch Start Date: 09/22/11 16:59 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-1 MSD	76 S-2 0-6	3050B, 6020	T	1 mL					
580-28720-A-2	76 S-1 0-6	3050B, 6020	T						
580-28720-A-3	76-9	3050B, 6020	T						
580-28720-A-4	76-14	3050B, 6020	T						
580-28720-A-5	76-15	3050B, 6020	T						
580-28720-A-6	76-12	3050B, 6020	T						
580-28720-A-7	76-18	3050B, 6020	T						
580-28720-A-8	76-17	3050B, 6020	T						
580-28720-A-9	76-13	3050B, 6020	T						
580-28720-A-10	76-16	3050B, 6020	T						
580-28720-A-11	76-10	3050B, 6020	T						
580-28720-A-12	76-1	3050B, 6020	T						
580-28720-A-13	76-4	3050B, 6020	T						
580-28720-A-14	76-11	3050B, 6020	T						
580-28720-A-15	76-5	3050B, 6020	T						
580-28720-A-16	76-3	3050B, 6020	T						
580-28720-A-17	76-6	3050B, 6020	T						
MB 580-95937/21		3050B, 6020							
LCS 580-95937/22		3050B, 6020		1 mL					
LCSD 580-95937/23		3050B, 6020		1 mL					
LCSSRM 580-95937/24		3050B, 6020			0.5041 g				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95937 Batch Start Date: 09/22/11 16:59 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date:

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	795223
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38008
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96028 Batch Start Date: 09/23/11 14:50 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/23/11 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28720-A-18	76-2	3050B, 6020	T	1.0277 g	50 mL				
580-28720-A-18 DU	76-2	3050B, 6020	T	1.0375 g	50 mL				
580-28720-A-18 MS	76-2	3050B, 6020	T	1.0350 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-18 MSD	76-2	3050B, 6020	T	1.0500 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-19	W-22	3050B, 6020	T	1.0149 g	50 mL				
580-28720-A-20	W-3	3050B, 6020	T	1.0332 g	50 mL				
580-28720-A-21	W-19	3050B, 6020	T	1.1052 g	50 mL				
580-28720-A-22	W-2	3050B, 6020	T	1.0856 g	50 mL				
580-28720-A-23	W-16	3050B, 6020	T	1.0839 g	50 mL				
580-28720-A-24	W-7	3050B, 6020	T	1.0595 g	50 mL				
580-28720-A-25	W-21	3050B, 6020	T	1.1227 g	50 mL				
580-28720-A-26	W-23	3050B, 6020	T	1.0654 g	50 mL				
580-28720-A-27	W-18	3050B, 6020	T	1.0378 g	50 mL				
580-28720-A-28	W-1	3050B, 6020	T	1.1199 g	50 mL				
580-28720-A-29	W-17	3050B, 6020	T	1.0412 g	50 mL				
580-28720-A-30	G-9	3050B, 6020	T	1.0549 g	50 mL				
580-28720-A-31	G-12	3050B, 6020	T	1.1415 g	50 mL				
580-28720-A-32	G-8	3050B, 6020	T	1.0352 g	50 mL				
580-28720-A-33	76 S-2 6-12	3050B, 6020	T	1.0037 g	50 mL				
580-28720-A-34	G-7	3050B, 6020	T	1.1154 g	50 mL				
MB 580-96028/21		3050B, 6020		1.0 g	50 mL				
LCS 580-96028/22		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-96028/23		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-96028/24		3050B, 6020		0.5046 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-18	76-2	3050B, 6020	T						
580-28720-A-18 DU	76-2	3050B, 6020	T						
580-28720-A-18 MS	76-2	3050B, 6020	T	1 mL					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96028 Batch Start Date: 09/23/11 14:50 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/23/11 17:10

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-18 MSD	76-2	3050B, 6020	T	1 mL					
580-28720-A-19	W-22	3050B, 6020	T						
580-28720-A-20	W-3	3050B, 6020	T						
580-28720-A-21	W-19	3050B, 6020	T						
580-28720-A-22	W-2	3050B, 6020	T						
580-28720-A-23	W-16	3050B, 6020	T						
580-28720-A-24	W-7	3050B, 6020	T						
580-28720-A-25	W-21	3050B, 6020	T						
580-28720-A-26	W-23	3050B, 6020	T						
580-28720-A-27	W-18	3050B, 6020	T						
580-28720-A-28	W-1	3050B, 6020	T						
580-28720-A-29	W-17	3050B, 6020	T						
580-28720-A-30	G-9	3050B, 6020	T						
580-28720-A-31	G-12	3050B, 6020	T						
580-28720-A-32	G-8	3050B, 6020	T						
580-28720-A-33	76 S-2 6-12	3050B, 6020	T						
580-28720-A-34	G-7	3050B, 6020	T						
MB 580-96028/21		3050B, 6020							
LCS 580-96028/22		3050B, 6020		1 mL					
LCSD 580-96028/23		3050B, 6020		1 mL					
LCSSRM 580-96028/24		3050B, 6020			0.5046 g				

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96028 Batch Start Date: 09/23/11 14:50 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/23/11 17:10

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	795223
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96039 Batch Start Date: 09/24/11 14:30 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/24/11 16:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-28720-A-35	G-11	3050B, 6020	T	1.0046 g	50 mL				
580-28720-A-35 DU	G-11	3050B, 6020	T	1.0533 g	50 mL				
580-28720-A-35 MS	G-11	3050B, 6020	T	1.0382 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-35 MSD	G-11	3050B, 6020	T	1.0580 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-28720-A-36	G-6	3050B, 6020	T	1.1423 g	50 mL				
580-28720-A-37	74 S-2 0-6	3050B, 6020	T	1.0313 g	50 mL				
580-28720-A-38	74 S-1 0-6	3050B, 6020	T	1.0692 g	50 mL				
580-28720-A-39	G-10	3050B, 6020	T	1.1180 g	50 mL				
580-28720-A-40	Emma 2 S-2 6-12	3050B, 6020	T	1.1531 g	50 mL				
580-28720-A-41	Emma 2 S-1 0-6	3050B, 6020	T	1.1379 g	50 mL				
580-28720-A-42	Emma 2 S-2 0-6	3050B, 6020	T	1.0146 g	50 mL				
MB 580-96039/12		3050B, 6020		1.0 g	50 mL				
LCS 580-96039/13		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-96039/14		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-96039/15		3050B, 6020		0.5034 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-28720-A-35	G-11	3050B, 6020	T						
580-28720-A-35 DU	G-11	3050B, 6020	T						
580-28720-A-35 MS	G-11	3050B, 6020	T	1 mL					
580-28720-A-35 MSD	G-11	3050B, 6020	T	1 mL					
580-28720-A-36	G-6	3050B, 6020	T						
580-28720-A-37	74 S-2 0-6	3050B, 6020	T						
580-28720-A-38	74 S-1 0-6	3050B, 6020	T						
580-28720-A-39	G-10	3050B, 6020	T						
580-28720-A-40	Emma 2 S-2 6-12	3050B, 6020	T						
580-28720-A-41	Emma 2 S-1 0-6	3050B, 6020	T						
580-28720-A-42	Emma 2 S-2 0-6	3050B, 6020	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96039 Batch Start Date: 09/24/11 14:30 Batch Analyst: Froyland, Zoe

Batch Method: 3050B Batch End Date: 09/24/11 16:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
MB 580-96039/12		3050B, 6020							
LCS 580-96039/13		3050B, 6020		1 mL					
LCSD 580-96039/14		3050B, 6020		1 mL					
LCSSRM 580-96039/15		3050B, 6020			0.5034 g				

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	795223
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95932 Batch Start Date: 09/22/11 15:57 Batch Analyst: Froyland, Zoe

Batch Method: 7471A Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_SPK_WORK 00008	SRMsolid 00006		
580-28720-A-1	76 S-2 0-6	7471A, 7471A	T	0.6333 g	50 mL				
580-28720-A-1 DU	76 S-2 0-6	7471A, 7471A	T	0.6212 g	50 mL				
580-28720-A-1 MS	76 S-2 0-6	7471A, 7471A	T	0.6106 g	50 mL	1 mL			
580-28720-A-1 MSD	76 S-2 0-6	7471A, 7471A	T	0.6221 g	50 mL	1 mL			
580-28720-A-2	76 S-1 0-6	7471A, 7471A	T	0.6207 g	50 mL				
580-28720-A-3	76-9	7471A, 7471A	T	0.6403 g	50 mL				
580-28720-A-4	76-14	7471A, 7471A	T	0.6646 g	50 mL				
580-28720-A-5	76-15	7471A, 7471A	T	0.6539 g	50 mL				
580-28720-A-6	76-12	7471A, 7471A	T	0.6819 g	50 mL				
580-28720-A-7	76-18	7471A, 7471A	T	0.6128 g	50 mL				
580-28720-A-8	76-17	7471A, 7471A	T	0.7019 g	50 mL				
580-28720-A-9	76-13	7471A, 7471A	T	0.6320 g	50 mL				
580-28720-A-10	76-16	7471A, 7471A	T	0.6739 g	50 mL				
580-28720-A-11	76-10	7471A, 7471A	T	0.6227 g	50 mL				
580-28720-A-12	76-1	7471A, 7471A	T	0.6137 g	50 mL				
580-28720-A-13	76-4	7471A, 7471A	T	0.7781 g	50 mL				
580-28720-A-14	76-11	7471A, 7471A	T	0.6656 g	50 mL				
580-28720-A-15	76-5	7471A, 7471A	T	0.6693 g	50 mL				
580-28720-A-16	76-3	7471A, 7471A	T	0.6727 g	50 mL				
580-28720-A-17	76-6	7471A, 7471A	T	0.6346 g	50 mL				
MB 580-95932/21		7471A, 7471A		0.6 g	50 mL				
LCS 580-95932/22		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSD 580-95932/23		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSSRM 580-95932/24		7471A, 7471A		0.1011 g	50 mL		0.1011 g		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95932 Batch Start Date: 09/22/11 15:57 Batch Analyst: Froyland, Zoe

Batch Method: 7471A Batch End Date:

Batch Notes	
Hydroxylamine Hydrochloride Lot	790508
Balance ID	SEA220
Sulfuric Acid Lot Number	737209
Lot # of hydrochloric acid	795223
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Potassium Persulfate Lot Number	782098
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP
Pipette ID	20051014
Stannous Chloride Lot Number	790550
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96254 Batch Start Date: 09/28/11 11:05 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/28/11 11:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_CAL_WORK 00008	SRMsolid 00006		
580-28720-A-19	W-22	7471A, 7471A	T	0.6849 g	50 mL				
580-28720-A-19 DU	W-22	7471A, 7471A	T	0.6209 g	50 mL				
580-28720-A-19 MS	W-22	7471A, 7471A	T	0.6203 g	50 mL	1 mL			
580-28720-A-19 MSD	W-22	7471A, 7471A	T	0.6720 g	50 mL	1 mL			
580-28720-A-20	W-3	7471A, 7471A	T	0.7493 g	50 mL				
580-28720-A-21	W-19	7471A, 7471A	T	0.7497 g	50 mL				
580-28720-A-22	W-2	7471A, 7471A	T	0.7575 g	50 mL				
580-28720-A-23	W-16	7471A, 7471A	T	0.6625 g	50 mL				
580-28720-A-24	W-7	7471A, 7471A	T	0.7636 g	50 mL				
580-28720-A-25	W-21	7471A, 7471A	T	0.6641 g	50 mL				
580-28720-A-26	W-23	7471A, 7471A	T	0.6454 g	50 mL				
580-28720-A-27	W-18	7471A, 7471A	T	0.7018 g	50 mL				
580-28720-A-28	W-1	7471A, 7471A	T	0.6628 g	50 mL				
580-28720-A-29	W-17	7471A, 7471A	T	0.6604 g	50 mL				
580-28720-A-30	G-9	7471A, 7471A	T	0.6907 g	50 mL				
580-28720-A-31	G-12	7471A, 7471A	T	0.6653 g	50 mL				
580-28720-A-32	G-8	7471A, 7471A	T	0.6260 g	50 mL				
580-28720-A-33	76 S-2 6-12	7471A, 7471A	T	0.7442 g	50 mL				
580-28720-A-34	G-7	7471A, 7471A	T	0.6376 g	50 mL				
580-28720-A-35	G-11	7471A, 7471A	T	0.6657 g	50 mL				
MB 580-96254/21		7471A, 7471A		0.6 g	50 mL				
LCS 580-96254/22		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSD 580-96254/23		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSSRM 580-96254/24		7471A, 7471A		0.1131 g	50 mL		0.1131 g		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96254 Batch Start Date: 09/28/11 11:05 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/28/11 11:45

Batch Notes	
Hydroxylamine Hydrochloride Lot	790508
Balance ID	SEA220
Sulfuric Acid Lot Number	737209
Lot # of hydrochloric acid	795223
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Potassium Persulfate Lot Number	782098
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP
Pipette ID	20051014
Stannous Chloride Lot Number	790550
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96255 Batch Start Date: 09/28/11 11:05 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/28/11 11:45

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_CAL_WORK 00008	SRMsolid 00006		
580-28720-A-36	G-6	7471A, 7471A	T	0.6369 g	50 mL				
580-28720-A-36 DU	G-6	7471A, 7471A	T	0.6409 g	50 mL				
580-28720-A-36 MS	G-6	7471A, 7471A	T	0.6245 g	50 mL	1 mL			
580-28720-A-36 MSD	G-6	7471A, 7471A	T	0.6514 g	50 mL	1 mL			
580-28720-A-37	74 S-2 0-6	7471A, 7471A	T	0.7924 g	50 mL				
580-28720-A-38	74 S-1 0-6	7471A, 7471A	T	0.8306 g	50 mL				
580-28720-A-39	G-10	7471A, 7471A	T	0.6581 g	50 mL				
580-28720-A-40	Emma 2 S-2 6-12	7471A, 7471A	T	0.6998 g	50 mL				
580-28720-A-41	Emma 2 S-1 0-6	7471A, 7471A	T	0.6530 g	50 mL				
580-28720-A-42	Emma 2 S-2 0-6	7471A, 7471A	T	0.7030 g	50 mL				
580-28720-A-18	76-2	7471A, 7471A	T	0.6475 g	50 mL				
MB 580-96255/12		7471A, 7471A		0.6 g	50 mL				
LCS 580-96255/13		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSD 580-96255/14		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSSRM 580-96255/15		7471A, 7471A		0.0958 g	50 mL		0.0958 g		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96255 Batch Start Date: 09/28/11 11:05 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 09/28/11 11:45

Batch Notes	
Hydroxylamine Hydrochloride Lot	790508
Balance ID	SEA220
Sulfuric Acid Lot Number	737209
Lot # of hydrochloric acid	795223
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38010
Potassium Persulfate Lot Number	782098
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP
Pipette ID	20051014
Stannous Chloride Lot Number	790550
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG No.:

Project: Monte Cristo Mine

Client Sample ID	Lab Sample ID
76 S-2 0-6	580-28720-1
76 S-1 0-6	580-28720-2
76-9	580-28720-3
76-14	580-28720-4
76-15	580-28720-5
76-12	580-28720-6
76-18	580-28720-7
76-17	580-28720-8
76-13	580-28720-9
76-16	580-28720-10
76-10	580-28720-11
76-1	580-28720-12
76-4	580-28720-13
76-11	580-28720-14
76-5	580-28720-15
76-3	580-28720-16
76-6	580-28720-17
76-2	580-28720-18
W-22	580-28720-19
W-3	580-28720-20
W-19	580-28720-21
W-2	580-28720-22
W-16	580-28720-23
W-7	580-28720-24
W-21	580-28720-25
W-23	580-28720-26
W-18	580-28720-27
W-1	580-28720-28
W-17	580-28720-29
G-9	580-28720-30
G-12	580-28720-31
G-8	580-28720-32
76 S-2 6-12	580-28720-33
G-7	580-28720-34
G-11	580-28720-35
G-6	580-28720-36
74 S-2 0-6	580-28720-37
74 S-1 0-6	580-28720-38
G-10	580-28720-39
Emma 2 S-2 6-12	580-28720-40
Emma 2 S-1 0-6	580-28720-41
Emma 2 S-2 0-6	580-28720-42

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76 S-2 0-6 Lab Sample ID: 580-28720-1

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/13/2011 17:30

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	7.30			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76 S-1 0-6 | Lab Sample ID: 580-28720-2

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/13/2011 16:40

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.46			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-9 | Lab Sample ID: 580-28720-3

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 12:15

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.43			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-14 | Lab Sample ID: 580-28720-4

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 13:50

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.41			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-15 | Lab Sample ID: 580-28720-5

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 13:20

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.04			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-12 | Lab Sample ID: 580-28720-6

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 11:05

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.92			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-18 | Lab Sample ID: 580-28720-7

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 10:30

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.07			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-17 | Lab Sample ID: 580-28720-8

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 11:00

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.06			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-13 Lab Sample ID: 580-28720-9

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/16/2011 10:40

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.77			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-16 | Lab Sample ID: 580-28720-10

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 11:45

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.81			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-10 | Lab Sample ID: 580-28720-11

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 09:45

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.31			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-1 | Lab Sample ID: 580-28720-12

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/13/2011 16:30

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.72			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-4 | Lab Sample ID: 580-28720-13

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 14:05

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.21			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-11 | Lab Sample ID: 580-28720-14

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/15/2011 15:50

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.83			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-5 | Lab Sample ID: 580-28720-15

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 13:35

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.05			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-3 | Lab Sample ID: 580-28720-16

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/13/2011 13:45

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.85			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-6 | Lab Sample ID: 580-28720-17

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/16/2011 13:00

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.97			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-2 | Lab Sample ID: 580-28720-18

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/15/2011 14:50

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.59			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-22 | Lab Sample ID: 580-28720-19

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 14:10

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.56			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-3 | Lab Sample ID: 580-28720-20

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 16:00

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.57			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-19 Lab Sample ID: 580-28720-21

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/12/2011 10:37

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.02			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-2 | Lab Sample ID: 580-28720-22

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 17:00

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.80			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-16 | Lab Sample ID: 580-28720-23

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 15:40

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.95			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-7 | Lab Sample ID: 580-28720-24

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 16:20

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.36			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-21 | Lab Sample ID: 580-28720-25

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 13:00

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.82			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-23 | Lab Sample ID: 580-28720-26

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 14:45

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.18			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-18 | Lab Sample ID: 580-28720-27

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 11:16

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.85			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-1 | Lab Sample ID: 580-28720-28

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 15:10

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.96			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: W-17 | Lab Sample ID: 580-28720-29

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/12/2011 12:05

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.17			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-9 Lab Sample ID: 580-28720-30

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/14/2011 14:25

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.32			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-12 | Lab Sample ID: 580-28720-31

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 16:05

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.05			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-8 Lab Sample ID: 580-28720-32

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/14/2011 14:10

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.01			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76 S-2 6-12 Lab Sample ID: 580-28720-33

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/13/2011 17:40

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.68			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-7 | Lab Sample ID: 580-28720-34

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 13:30

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.57			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-11 | Lab Sample ID: 580-28720-35

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 13:15

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.03			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-6 | Lab Sample ID: 580-28720-36

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 14:30

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.48			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 74 S-2 0-6 | Lab Sample ID: 580-28720-37

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/15/2011 13:20

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.70			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 74 S-1 0-6 Lab Sample ID: 580-28720-38

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/15/2011 13:10

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.44			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: G-10 | Lab Sample ID: 580-28720-39

Lab Name: TestAmerica Seattle | Job No.: 580-28720-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/14/2011 15:25

Reporting Basis: WET | Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.67			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Emma 2 S-2 6-12 Lab Sample ID: 580-28720-40

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/15/2011 13:30

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.67			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Emma 2 S-1 0-6 Lab Sample ID: 580-28720-41

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/15/2011 13:00

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.62			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: Emma 2 S-2 0-6 Lab Sample ID: 580-28720-42

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG ID.:

Matrix: Solid Date Sampled: 09/15/2011 13:20

Reporting Basis: WET Date Received: 09/20/2011 11:00

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.50			SU			1	9045C

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Analyst: JP Batch Start Date: 09/22/2011

Reporting Units: SU Analytical Batch No.: 95870

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	08:21	pH	7.020					
22	CCV	08:21	pH	7.020					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Analyst: AM Batch Start Date: 10/03/2011

Reporting Units: SU Analytical Batch No.: 96753

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	14:41	pH	7.000	7.00	100			pH 7 ICV_00002
23	CCV	14:41	pH	6.970	7.00	100			pH 7 ICV_00002

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Analyst: JP Batch Start Date: 10/05/2011

Reporting Units: SU Analytical Batch No.: 96905

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	06:59	pH	7.000	7.00	100			pH 7 ICV_00002
22	CCV	07:02	pH	6.990	7.00	100			pH 7 ICV_00002

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Analyst: JP Batch Start Date: 10/03/2011

Reporting Units: SU Analytical Batch No.: 96906

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	07:10	pH	6.990	7.00	100			pH 7 ICV_00002
7	CCV	07:10	pH	6.990	7.00	100			pH 7 ICV_00002

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

6-IN
DUPLICATE
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Matrix: Solid

Method	Client Sample ID	Lab Sample ID	Analyte	Result	Unit	RPD	RPD Limit	Qual
Batch ID: 96906 Date: 10/03/2011 07:10								
9045C	Emma 2 S-1 0-6	580-28720-41	pH	5.62	SU			
9045C	Emma 2 S-1 0-6	580-28720-41 DU	pH	5.590	SU	0.535		
Batch ID: 96905 Date: 10/05/2011 07:02								
9045C	74 S-1 0-6	580-28720-38	pH	5.44	SU			
9045C	74 S-1 0-6	580-28720-38 DU	pH	5.440	SU	0.000		

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job Number: 580-28720-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045C

Start Date: 09/22/2011 08:21 End Date: 09/22/2011 08:21

Lab Sample ID	D/F	Type	Time	Analytes																			
				pH																			
ICV 580-95870/1	1		08:21	X																			
ZZZZZZ			08:21																				
ZZZZZZ			08:21																				
ZZZZZZ			08:21																				
ZZZZZZ			08:21																				
ZZZZZZ			08:21																				
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ZZZZZZ			08:21																				
ZZZZZZ			08:21																				
ZZZZZZ			08:21																				
580-28720-1	1	T	08:21	X																			
580-28720-2	1	T	08:21	X																			
580-28720-3	1	T	08:21	X																			
CCV 580-95870/22	1		08:21	X																			

Prep Types

T = Total/NA

ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle   Job No.: 580-28720-1

SDG No.:

Instrument ID: NOEQUIP   Method: 9045C

Start Date: 10/03/2011 07:10   End Date: 10/03/2011 07:10

Lab Sample ID	D/F	Type	Time	Analytes: pH
ICV 580-96906/1	1		07:10	X
580-28720-40	1	T	07:10	X
580-28720-39	1	T	07:10	X
580-28720-41	1	T	07:10	X
580-28720-41 DU	1	T	07:10	X
580-28720-42	1	T	07:10	X
CCV 580-96906/7	1		07:10	X
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
CCV 580-96906/16			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	
ZZZZZZ			07:10	

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045C

Start Date: 10/03/2011 14:41 End Date: 10/03/2011 14:41

Lab Sample ID	D / F	Type	Time	Analytes																			
				pH																			
ICV 580-96753/1	1		14:41	X																			
ZZZZZZ			14:41																				
ZZZZZZ			14:41																				
ZZZZZZ			14:41																				
580-28720-4	1	T	14:41	X																			
580-28720-5	1	T	14:41	X																			
580-28720-6	1	T	14:41	X																			
580-28720-7	1	T	14:41	X																			
580-28720-8	1	T	14:41	X																			
580-28720-9	1	T	14:41	X																			
580-28720-10	1	T	14:41	X																			
580-28720-11	1	T	14:41	X																			
580-28720-12	1	T	14:41	X																			
580-28720-13	1	T	14:41	X																			
580-28720-14	1	T	14:41	X																			
580-28720-15	1	T	14:41	X																			
580-28720-16	1	T	14:41	X																			
580-28720-17	1	T	14:41	X																			
580-28720-18	1	T	14:41	X																			
580-28720-19	1	T	14:41	X																			
580-28720-20	1	T	14:41	X																			
580-28720-21	1	T	14:41	X																			
CCV 580-96753/23	1		14:41	X																			

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045C

Start Date: 10/05/2011 06:59 End Date: 10/05/2011 07:02

Lab Sample ID	D / F	Type	Time	Analytes																			
				pH																			
ICV 580-96905/1	1		06:59	X																			
ZZZZZZ			06:59																				
ZZZZZZ			06:59																				
580-28720-22	1	T	06:59	X																			
580-28720-23	1	T	06:59	X																			
580-28720-24	1	T	06:59	X																			
580-28720-25	1	T	06:59	X																			
580-28720-26	1	T	06:59	X																			
580-28720-27	1	T	06:59	X																			
580-28720-28	1	T	06:59	X																			
580-28720-29	1	T	06:59	X																			
580-28720-30	1	T	06:59	X																			
580-28720-31	1	T	06:59	X																			
580-28720-32	1	T	06:59	X																			
580-28720-33	1	T	06:59	X																			
580-28720-34	1	T	06:59	X																			
580-28720-35	1	T	06:59	X																			
580-28720-36	1	T	06:59	X																			
580-28720-37	1	T	06:59	X																			
580-28720-38	1	T	06:59	X																			
580-28720-38 DU	1	T	07:02	X																			
CCV 580-96905/22	1		07:02	X																			

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 09/23/2011 08:16 End Date: 09/23/2011 08:16

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
580-28720-1	1	T	08:16	X	X																		
580-28720-1 DU	1	T	08:16	X	X																		
580-28720-2	1	T	08:16	X	X																		
580-28720-3	1	T	08:16	X	X																		
580-28720-4	1	T	08:16	X	X																		
580-28720-5	1	T	08:16	X	X																		
580-28720-6	1	T	08:16	X	X																		
580-28720-7	1	T	08:16	X	X																		
580-28720-8	1	T	08:16	X	X																		
580-28720-9	1	T	08:16	X	X																		
580-28720-10	1	T	08:16	X	X																		
580-28720-11	1	T	08:16	X	X																		
580-28720-12	1	T	08:16	X	X																		
580-28720-13	1	T	08:16	X	X																		
580-28720-14	1	T	08:16	X	X																		
580-28720-15	1	T	08:16	X	X																		
580-28720-16	1	T	08:16	X	X																		
580-28720-17	1	T	08:16	X	X																		
580-28720-18	1	T	08:16	X	X																		
580-28720-19	1	T	08:16	X	X																		
580-28720-20	1	T	08:16	X	X																		

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 09/23/2011 09:11 End Date: 09/23/2011 09:11

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
580-28720-21	1	T	09:11	X	X																		
580-28720-22	1	T	09:11	X	X																		
580-28720-23	1	T	09:11	X	X																		
580-28720-24	1	T	09:11	X	X																		
580-28720-25	1	T	09:11	X	X																		
580-28720-26	1	T	09:11	X	X																		
580-28720-27	1	T	09:11	X	X																		
580-28720-28	1	T	09:11	X	X																		
580-28720-29	1	T	09:11	X	X																		
580-28720-30	1	T	09:11	X	X																		
580-28720-31	1	T	09:11	X	X																		
580-28720-32	1	T	09:11	X	X																		
580-28720-33	1	T	09:11	X	X																		
580-28720-34	1	T	09:11	X	X																		
580-28720-35	1	T	09:11	X	X																		
580-28720-36	1	T	09:11	X	X																		
580-28720-37	1	T	09:11	X	X																		
580-28720-38	1	T	09:11	X	X																		
580-28720-39	1	T	09:11	X	X																		
580-28720-40	1	T	09:11	X	X																		
580-28720-40 DU	1	T	09:11	X	X																		

Prep Types
T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 09/23/2011 10:20 End Date: 09/23/2011 10:20

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
580-28720-41	1	T	10:20	X	X																		
580-28720-41 DU	1	T	10:20	X	X																		
580-28720-42	1	T	10:20	X	X																		
ZZZZZZ			10:20																				
ZZZZZZ			10:20																				
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ZZZZZZ			10:20																				

Prep Types
T = Total/NA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

(150.1) / 9040B / 9045C (circle one)

Analyst JP Date 9-21-11 Instrument ID pH 2

Batch _____ Start Time 16:30 End Time _____

Calibration

pH 4 Std.	TALS ID: 779178	Slope =	100.1	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756339	Slope =	99.4	
pH 10 Std.	TALS ID: 756338	Slope =	96.7	
For Orion 370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.02	7.02	7.02	(±0.05 units) Yes / No
1	28547-1	7.04	7.04	7.04	
2	28547-1 DU	7.01	7.02	7.02	
3	28638-1	7.66	7.66	7.66	
4	28657-1	8.49	8.50	8.50	
5	28657-2	7.31	7.31	7.31	
6	28693-1	7.02	7.03	7.03	
7	28698-1	6.62	6.62	6.62	
8	28715-1	6.90	6.93	6.93	
9	28716-1	6.88	6.87	6.87	
10	28727-1	12.92	12.90	12.90	
11	28492-1	~~8.72~~ JP	8.27	8.27 = 8.27	
12	28492-1 DU	8.25	8.26	8.26	
13	28492-2	7.85	7.84	7.84	
14	28586-3	7.79	7.79	7.79	
15	28586-4	6.90	6.89	6.89	
16	28586-5	7.93	7.96	7.96	
17	28672-1	9.14	9.14	9.14	
18	28720-1	7.30	7.30	7.30	
19	28720-2	6.46	6.46	6.46	
20	28720-3	5.45	5.43	5.43	
Closing CCV	pH7 Std. TALS ID:	7.02	7.02	7.02	(±0.05 units) Yes / No

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units) Yes / No

Reviewer's Initals and Date _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING
Seattle

EPA 180.1/SM 2130B - Turbidity

Date/Time Analyzed: 10/3/11 Batch: _____

Instrument: 2100 N Turbidimeter Analyst: JP

Sample ID	Result (NTU)	PQL	Comments
MB	0.160		
ICV (TV:)	1.28		if outside ± 4% of TV re-calibrate
29016-A-1	6.36		
29016-A-1DV	6.35		
29016-B-2	10.4		
29035-A-1	2.97		
29025-A-1	6.49		
29033-A-1	10.5		
29034-A-1	6.46		
29027-A-1	10.4		
29015-A-1	19.7		@ 2X
29015-A-2	12.5		"
29011-A-1	30.4		~~@ 5X~~ @2X
29011-A-2	26.6		@ 2X
29037-A-1	22.2		
29921-H-1	0.321		
CCV 0-2	1.29		
0-20	14.0		
0-200	158		

Gelex Standards (Hach lot A5083)	Current TV (A.C. ±10% unless ICV)
0-2 NTU	
0-20 NTU	
0-200 NTU	
200-4000 NTU	

Calibration date: _____

Scale is always Auto unless noted here: _____

Calibration/Maintenance	Date:	Analyst:
Record vendor/lot/IDs for Formazin standards if calibrating		

Reviewer date and initials: _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst JP Date 10/3/11 Instrument ID pH 2

Batch _____ Start Time _____ End Time _____

Calibration

pH 4 Std.	TALS ID: 779178	Slope =	98.9	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756339	Slope =	93.6	
pH 10 Std.	TALS ID: 756338	Slope =	96.9	
For Orion.370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.00	7.00	7.00	(±0.05 units) Yes / No
1	28720-A-20	4.57	4.57	4.57	
2	28720-A-21	4.85	4.85	4.85	
3	28720-A-22	4.80	4.80	4.80	
4	28720-A-23	4.95	4.95	4.95	
5	28720-A-24	4.36	4.36	4.36	
6	28720-A-25	4.81	4.82	4.82	
7	28720-A-26	4.19	4.18	4.18	
8	28720-A-27	4.85	4.85	4.85	
9	28720-A-28	4.96	4.96	4.96	
10	28720-A-29	5.17	5.17	5.17	
11	28720-A-30	5.33	5.32	5.32	
12	28720-A-31	5.06	5.05	5.05	
13	28720-A-32	5.01	5.01	5.01	
14	28720-A-33	5.44	5.48	5.48	
15	28720-A-34	4.57	4.57	4.57	
16	28720-A-35	5.03	5.03	5.03	
17	28720-A-36	4.48	4.48	4.48	
18	28720-A-37	5.71	5.70	5.70	
19	28720-A-38	5.44	5.44	5.44	
20	28720-A-38DL	~~4.07~~	~~4.07~~	~~4.07~~ 5.43, 5.44, 5.44	
Closing CCV	pH7 Std. TALS ID:	6.99	6.99	6.99	(±0.05 units) Yes / No

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units) Yes / No

Reviewer's Initals and Date _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst JP Date 10/3/11 Instrument ID pH 2

Batch _____ Start Time _____ End Time _____

Calibration

pH 4 Std.	TALS ID: 779178	Slope =	98.9	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756339	Slope =	95.6	
pH 10 Std.	TALS ID: 756338	Slope =	96.4	
For Orion 370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.00	6.99	6.99	(±0.05 units) Yes / No
1	28720-A-40	4.67	4.67	4.67	
2	28720-A-39	4.67	4.67	4.67	
3	28720-A-41	5.62	5.62	5.62	
4	28720-A-41DU	5.60	5.59	5.59	
5	28720-A-42	4.80	4.80	4.80	
6	CCV	6.99	6.99	6.99	
7	29037-A-1	6.89	6.88	6.88	
8	29011-A-1	6.69	6.69	6.69	
9	29011-A-2	6.91	6.92	6.92	
10	29015-A-1	6.95	6.95	6.95	
11	29015-A-2	5.97	5.97	5.97	
12 JP	~~28925-A-1~~				
13	28 29027-A-1	7.44	7.43	7.43	
14	28892-A-1	6.63	6.63	6.63	
15	28961-B-1	6.67	6.67	6.67	
16	CCV	7.01	7.01	7.01	
17					
18					
19					
20					
Closing CCV	pH7 Std. TALS ID:				(±0.05 units) Yes / No

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units) Yes / No

Reviewer's Initals and Date _____

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst AJM Date 10-3-11 Instrument ID pH 2

Batch #96753 Start Time 13:50 ~~15:50~~ End Time 14:30

Calibration

pH 4 Std.	TALS ID: 779178	Slope =	98.9	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756339	Slope =	95.6	
pH 10 Std.	TALS ID: 756338	Slope =	96.4	
For Orion 370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.00	7.00	7.00	(±0.05 units) Yes / No
1	28754-D-1	6.76	6.77	6.77	
2	" -1MD	6.78	6.76	6.76	
3	" E-2	6.10	6.09	6.09	
4	28720-A-4	5.43	5.41	5.41	
5	" -5	5.05	5.04	5.04	
6	" -6	4.96	4.92	4.92	
7	" -7	5.06	5.07	5.07	
8	" -8	5.08	5.06	5.06	
9	" -9	4.77	4.77	4.77	
10	" -10	4.84	4.81	4.81	
11	" -11	4.33	4.31	4.31	
12	" -12	4.72	4.72	4.72	
13	" -13	5.21	5.21	5.21	
14	" -14	5.80	5.83	5.83	
15	" -15	5.06	5.05	5.05	
16	" -16	4.86	4.85	4.85	
17	" -17	5.00	4.97	4.97	
18	" -18	5.56	5.59	5.59	
19	" -19	4.57	4.56	4.56	
20	" -20	4.61	4.57	4.57	
Closing CCV	pH7 Std. TALS ID:	6.96	6.97	6.97	(±0.05 units) Yes / No
	28720-A-21	5.02	5.02	5.02	

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units)
	28754-D-1	6.77	6.76	6.76	Yes / No

Reviewer's Initals and Date

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst JP Date 10/3/11 Instrument ID pH 2

Batch _____ Start Time _____ End Time _____

Calibration

pH 4 Std.	TALS ID: 779178	Slope =	98.9	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756339	Slope =	95.6	
pH 10 Std.	TALS ID: 756338	Slope =	96.4	
For Orion 370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.00	7.00	7.00	(±0.05 units) Yes / No
1	28720-A-20	4.57	4.57	4.57	
2	28720-A-21	4.85	4.85	4.85	
3	28720-A-22	4.80	4.80	4.80	
4	28720-A-23	4.95	4.95	4.95	
5	28720-A-24	4.36	4.36	4.36	
6	28720-A-25	4.81	4.82	4.82	
7	28720-A-26	4.19	4.18	4.18	
8	28720-A-27	4.85	4.85	4.85	
9	28720-A-28	4.96	4.96	4.96	
10	28720-A-29	5.17	5.17	5.17	
11	28720-A-30	5.33	5.32	5.32	
12	28720-A-31	5.06	5.05	5.05	
13	28720-A-32	5.01	5.01	5.01	
14	28720-A-33	5.44	5.68	5.68	
15	28720-A-34	4.57	4.57	4.57	
16	28720-A-35	5.03	5.03	5.03	
17	28720-A-36	4.48	4.48	4.48	
18	28720-A-37	5.71	5.70	5.70	
19	28720-A-38	5.44	5.44	5.44	
20	28720-A-38DL	~~4.07~~	~~4.07~~	~~4.07~~ 5.43, 5.44, 5.44	
Closing CCV	pH7 Std. TALS ID:	6.99	6.99	6.99	(±0.05 units) Yes / No

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units) Yes / No

Reviewer's Initals and Date _____

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96753 Batch Start Date: 10/03/11 14:41 Batch Analyst: Mattison, Adam

Batch Method: 9045C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pH 7 ICV 00002					
ICV 580-96753/1		9045C		50 mL					
CCV 580-96753/23		9045C		50 mL					

Batch Notes	
Balance ID	SEA219
pH Buffer 1 ID	779178
pH Buffer 2 ID	756339
pH Buffer 3 ID	756338
Electronic Slope	98.9, 95.6, 96.4
Instrument ID	pH2
Sufficient volume for sample dup	Y

Basis	Basis Description

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96905 Batch Start Date: 10/05/11 06:59 Batch Analyst: Peterson, Jami

Batch Method: 9045C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pH 7 ICV 00002					
ICV 580-96905/1		9045C		30 mL					
CCV 580-96905/22		9045C		30 mL					

Batch Notes	
pH Buffer 1 ID	779178
pH Buffer 2 ID	756339
pH Buffer 3 ID	756338
pH Buffer 4 ID	583425
Electronic Slope	YES
Instrument ID	PH2
Probe ID	SAMEASINST
Sufficient volume for sample dup	YES

Basis	Basis Description

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 96906 Batch Start Date: 10/03/11 07:10 Batch Analyst: Peterson, Jami

Batch Method: 9045C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	pH 7 ICV 00002					
ICV 580-96906/1		9045C		30 mL					
CCV 580-96906/7		9045C		30 mL					

Batch Notes	
pH Buffer 1 ID	779178
pH Buffer 2 ID	756339
pH Buffer 3 ID	756338
pH Buffer 4 ID	583425
Electronic Slope	YES
Instrument ID	PH2
Probe ID	SAMEASINST
Sufficient volume for sample dup	YES

Basis	Basis Description

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95951 Batch Start Date: 09/23/11 08:16 Batch Analyst: Hanlon, Gina

Batch Method: Moisture Batch End Date: 09/23/11 14:02

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
580-28720-A-1	76 S-2 0-6	Moisture	T	0.7266 g	5.6562 g	5.3165 g			
580-28720-A-1 DU	76 S-2 0-6	Moisture	T	0.7293 g	5.4614 g	5.1403 g			
580-28720-A-2	76 S-1 0-6	Moisture	T	0.7262 g	6.1910 g	4.5702 g			
580-28720-A-3	76-9	Moisture	T	0.7335 g	6.0005 g	3.7390 g			
580-28720-A-4	76-14	Moisture	T	0.7355 g	6.4117 g	3.9679 g			
580-28720-A-5	76-15	Moisture	T	0.7310 g	5.4135 g	3.6500 g			
580-28720-A-6	76-12	Moisture	T	0.7338 g	6.4173 g	3.6039 g			
580-28720-A-7	76-18	Moisture	T	0.7251 g	5.5596 g	3.8604 g			
580-28720-A-8	76-17	Moisture	T	0.7496 g	5.4813 g	3.5532 g			
580-28720-A-9	76-13	Moisture	T	0.7497 g	5.6209 g	2.5727 g			
580-28720-A-10	76-16	Moisture	T	0.7381 g	6.5234 g	4.9480 g			
580-28720-A-11	76-10	Moisture	T	0.7560 g	5.1605 g	3.4501 g			
580-28720-A-12	76-1	Moisture	T	0.7448 g	6.4608 g	5.5984 g			
580-28720-A-13	76-4	Moisture	T	0.7298 g	5.9772 g	3.9282 g			
580-28720-A-14	76-11	Moisture	T	0.7293 g	8.5993 g	7.9704 g			
580-28720-A-15	76-5	Moisture	T	0.7504 g	6.1826 g	4.3691 g			
580-28720-A-16	76-3	Moisture	T	0.7392 g	6.8668 g	5.7042 g			
580-28720-A-17	76-6	Moisture	T	0.7384 g	5.3883 g	3.1766 g			
580-28720-A-18	76-2	Moisture	T	0.7477 g	7.6594 g	7.0183 g			
580-28720-A-19	W-22	Moisture	T	0.7324 g	6.4116 g	4.3766 g			
580-28720-A-20	W-3	Moisture	T	0.7291 g	5.8410 g	3.9484 g			

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95951 Batch Start Date: 09/23/11 08:16 Batch Analyst: Hanlon, Gina

Batch Method: Moisture Batch End Date: 09/23/11 14:02

Batch Notes	
Balance ID	sea218 No Unit
Date samples were placed in the oven	9-23-11
Oven Temp when samples are put in oven	110 Degrees C
Time samples were place in the oven	9;08
Date samples were removed from oven	9-23-11
Oven Temp when samples removed from oven	111 Degrees C
Time Samples were removed from oven	13.48
Oven ID	tac306
ID number of the thermometer	3a4823
Uncorrected In Temperature	110 Celsius
Uncorrected Out Temperature	111 Celsius

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95971 Batch Start Date: 09/23/11 09:11 Batch Analyst: Hanlon, Gina

Batch Method: Moisture Batch End Date: 09/23/11 14:18

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
580-28720-A-21	W-19	Moisture	T	0.7294 g	5.4779 g	3.5688 g			
580-28720-A-22	W-2	Moisture	T	0.7259 g	5.1082 g	3.4635 g			
580-28720-A-23	W-16	Moisture	T	0.7145 g	7.1443 g	4.9459 g			
580-28720-A-24	W-7	Moisture	T	0.7236 g	5.5350 g	3.9995 g			
580-28720-A-25	W-21	Moisture	T	0.7308 g	5.8484 g	4.4082 g			
580-28720-A-26	W-23	Moisture	T	0.7294 g	5.5007 g	3.5535 g			
580-28720-A-27	W-18	Moisture	T	0.7378 g	6.4015 g	3.9665 g			
580-28720-A-28	W-1	Moisture	T	0.7263 g	5.8271 g	3.7075 g			
580-28720-A-29	W-17	Moisture	T	0.7274 g	6.1779 g	4.0197 g			
580-28720-A-30	G-9	Moisture	T	0.7271 g	7.8319 g	6.7742 g			
580-28720-A-31	G-12	Moisture	T	0.7469 g	6.6524 g	5.1296 g			
580-28720-A-32	G-8	Moisture	T	0.7471 g	5.4857 g	4.6640 g			
580-28720-A-33	76 S-2 6-12	Moisture	T	0.7290 g	9.1846 g	8.5698 g			
580-28720-A-34	G-7	Moisture	T	0.7317 g	6.1929 g	5.6524 g			
580-28720-A-35	G-11	Moisture	T	0.7422 g	5.2818 g	4.2221 g			
580-28720-A-36	G-6	Moisture	T	0.7454 g	5.0768 g	3.7117 g			
580-28720-A-37	74 S-2 0-6	Moisture	T	0.7504 g	7.9518 g	6.9631 g			
580-28720-A-38	74 S-1 0-6	Moisture	T	0.7225 g	7.1720 g	5.4559 g			
580-28720-A-39	G-10	Moisture	T	0.7379 g	6.8889 g	5.4982 g			
580-28720-A-40	Emma 2 S-2 6-12	Moisture	T	0.7374 g	8.8256 g	7.9663 g			
580-28720-A-40 DU	Emma 2 S-2 6-12	Moisture	T	0.7358 g	9.4610 g	8.5526 g			

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95971 Batch Start Date: 09/23/11 09:11 Batch Analyst: Hanlon, Gina

Batch Method: Moisture Batch End Date: 09/23/11 14:18

Batch Notes	
Balance ID	sae218 No Unit
Date samples were placed in the oven	9-23
Oven Temp when samples are put in oven	108 Degrees C
Time samples were place in the oven	10:00
Date samples were removed from oven	9-23-11
Oven Temp when samples removed from oven	110 Degrees C
Time Samples were removed from oven	14:07
Oven ID	tac306
ID number of the thermometer	3a4823
Uncorrected In Temperature	108 Celsius
Uncorrected Out Temperature	110 Celsius

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-28720-1

SDG No.:

Batch Number: 95983 Batch Start Date: 09/23/11 10:20 Batch Analyst: Hanlon, Gina

Batch Method: Moisture Batch End Date: 09/23/11 14:47

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
580-28720-A-41	Emma 2 S-1 0-6	Moisture	T	0.7318 g	5.7269 g	4.6721 g			
580-28720-A-41 DU	Emma 2 S-1 0-6	Moisture	T	0.7276 g	5.4221 g	4.3982 g			
580-28720-A-42	Emma 2 S-2 0-6	Moisture	T	0.7346 g	6.4103 g	5.9284 g			

Batch Notes	
Balance ID	sea218 No Unit
Date samples were placed in the oven	9-23
Oven Temp when samples are put in oven	110 Degrees C
Time samples were place in the oven	11:11
Date samples were removed from oven	9-23-11
Oven Temp when samples removed from oven	110 Degrees C
Time Samples were removed from oven	1428
Oven ID	tac306
ID number of the thermometer	3a4823
Uncorrected In Temperature	110 Celsius
Uncorrected Out Temperature	110 Celsius

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

Pg. 1 of 4

Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB 17800-06 LAB NUMBER

PROJECT NAME MONTE CRISTO

HART CROWSER CONTACT MICHELLE HAVEY 206. 683. 9199

SAMPLED BY: ASK/WDM/CAA/MAH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: SEE ATTACHED	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
								28720
1	76 5-2 0-6	MINE FEST	9/13/11	1730	SOIL	X	1	4oz PLASTIC
2	76 5-1 0-6		9/13/11	1640	SOIL	X	1	HOLD SAMPLE
3	76-9	BG	9/16/11	1215	SOIL	X	1	FOR ARSENIC
4	76-14		9/16/11	1350		X	1	SPECIATION
5	76-15		9/16/11	1320		X	1	
6	76-12		9/16/11	1105		X	1	
7	76-18		9/16/11	1030		X	1	
8	76-17		9/16/11	1100		X	1	
9	76-13			1040		X	1	
10	76-16			1145		X	1	
11	76-10			0945		X	1	
12	76-1		9/13/11	1630		X	1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	9/18/11	SIGNATURE	9/19/11
PRINT NAME ANDREW KAPAROS	TIME	PRINT NAME WARD McDONALD	TIME
COMPANY HC	0900	COMPANY HC	0700
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	9/20/11	SIGNATURE	9/20/11
PRINT NAME WARD McDONALD	TIME	PRINT NAME S. Katicki	TIME
COMPANY HC	1000	COMPANY TA Sea	11:00

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:
RETAIN ALL SAMPLES FOR 1 MONTH FOR ARSENIC SPECIATION PENDING RESULTS

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER 10 DAYS

White and Yellow Copies to Lab — Pink to Project Manager — Lab to Return White Copy to Hart Crowser — Gold to Sample Custodian

10/11/2011

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB 17800-06 LAB NUMBER

PROJECT NAME MONTE CRISTO

HART CROWSER CONTACT MICHELLE HAVEY 206.683.9199

SAMPLED BY: WDM/ASK/CAA/MAH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	SEE ATTACHED	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
13	76-4	BG	9/16/11	1405	SOIL	X	1	4oz PLASTIC
14	76-11A	BG	9/15/11	1550		X	1	HOLD SAMPLE
15	76-5	BG	9/16/11	1335		X	1	FOR ARSENIC
16	76-3	BG	9/13/11	1345		X	1	SPECIATION
17	76-6	BG	9/16/11	1300		X	1	
18	76-2	BG	9/15/11	1450		X	1	
19	W-22	BG	9/12/11	1410		X	1	
20	W-3		9/12/11	1600		X	1	
21	W-19		9/12/11	1037		X	1	
22	W-2		9/12/11	1700		X	1	
23	W-16			1540		X	1	
24	W-7			1620		X	1	

REQUESTED ANALYSIS

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	9/18/11	SIGNATURE	9/19/11
PRINT NAME ANDREW KAPPAS	TIME	PRINT NAME WARD MCD.	TIME
COMPANY HC	0900	COMPANY HC	0700
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE WARD MCDONNELL	9/20/11	SIGNATURE S. Kalicki	9/20/11
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY HC	1000	COMPANY TA Sea	11:00

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

RETAIN ALL SAMPLES FOR ARSENIC SPECIATION PENDING RESULTS

24 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No.
for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER 10 DAYS

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser Gold to Sample Custodian

10/11/2011

Sample Custody Record

Samples Shipped to: TEST AMERICA

HARTCROWSER

Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB ~~X~~ 17800-06 LAB NUMBER

PROJECT NAME MONTE CRISTO

HART CROWSER CONTACT MICHELLE HAVEY
206.683.9199

SAMPLED BY: WDM / ASK / CAA / MAH

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS (SEE ATTACHED)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
								28720
25	W-21	BG	9-12-11	1300	SOIL	X	1	4oz PLASTIC
26	W-23			1445		X	1	HOLD SAMPLE
27	W-18			1116		X	1	FOR
28	W-1			1510		X	1	ARSENIC SPECIATION
29	W-17			1205		X	1	
30	G-9		9/14/11	1425		X	1	
31	G-12			1605		X	1	
32	G-8			1410		X	1	
33	765-2	6-12 MINE	9/13/11	1740		X	1	
34	G-7	BG	9/14/11	1330		X	1	
35	G-11	BG	9/14/11	1315		X	1	
36	G-6			1430		X	1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	9/18/11	SIGNATURE	9/19/11
PRINT NAME ANDREW KAPAROS	TIME	PRINT NAME WARD MCDONALD	TIME
COMPANY HC	0900	COMPANY HC	0700
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	9/20/11	SIGNATURE S. KAPICKI	9/20/11
PRINT NAME WARD MCDONALD	TIME	PRINT NAME	TIME
COMPANY HC	1000	COMPANY TA Sea	11:00

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:
RETAIN ALL SAMPLES FOR ARSENIC SPECIATION PENDING RESULTS

36 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER 10 Days

White and Yellow Copies to Lab — Pink to Project Manager — Lab to Return White Copy to Hart Crowser — Gold to Sample Custodian

10/11/2011

Sample Custody Record

Samples Shipped to: TEST AMERICA

4 of 4

HARTCROWSER

Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB 1780006 LAB NUMBER

PROJECT NAME MONTE CRISTO

HART CROWSER CONTACT MICHELLE HAVEY

SAMPLED BY: AK, MH, WDM, CA

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: SEE ATTACHED	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
~~—~~	~~76-14~~	~~BACKGROUND~~	~~9/10/11~~	~~1350~~	~~SOIL~~		*	4oz PLASTIC
~~—~~	~~74-S2~~	~~0-6"~~	~~9/15/11~~	~~1320~~	~~SOIL~~		*	4oz
~~—~~	~~74-S1~~	~~0-6"~~	~~9/15/11~~	~~1310~~	~~SOIL~~		*	HOLD FOR ARSENIC SPECIATION
~~—~~	~~76-S-1~~	~~0-6"~~	~~9/13/11~~	~~1610~~	~~SOIL~~		*	
37	74-S-2	MINE	9/15/11	1320	SOIL	X	1	
38	74 S-1 0-6	MINE	9/15/11	1310	SOIL	X	1	
39	6-10 0-6	B6	9/14/11	1525		X	1	
40	EMMA 2 S-2 6-12	MINE	9/15/11	1330		X	1	
41	EMMA 2 S-1 0-6	MINE	9/15/11	1300		X	1	
42	EMMA 2 S-2 0-6	MINE	9/15/11	1320		X	1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	9/18/11	SIGNATURE	9/19/11
PRINT NAME ANDREW ICAPARIS	TIME	PRINT NAME WARD MCDONALD	TIME
COMPANY HC	0900	COMPANY HC	0700
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE WARD MCDONALD	9/20/11	SIGNATURE S. KALICKI	9/20/11
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY HC	1000	COMPANY TASEA	11:00

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

RETAIN ALL SAMPLES FOR ARSENIC SPECIATION PENDING RESULTS

42 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: 1 STORAGE LOCATION:

See Lab Work Order No.
for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER 10 DAYS

White and Yellow Copies to Lab — Pink to Project Manager — Lab to Return White Copy to Hart Crowser — Gold to Sample Custodian

10/11/2011

Table 1 - Sample Containers, Preservation, and Holding Times

Analyte	MTCA Method B Screening Level	Prep Method	Analysis Method	MRL	MDL	Units	Min Sample	Preservative	Holding Time
Aluminum	8.00E+04	EPA 3050B	EPA 6020	30.0	3.00	mg/Kg	1 - 4 oz plastic bottle (10 gms)	ice	6 months; mercury - 28 days
Antimony	3.20E+01	EPA 3050B	EPA 6020	0.2	0.042	mg/Kg			
Arsenic	NA	EPA 3050B	EPA 6020	0.5	0.18	mg/Kg			
Barium	1.60E+04	EPA 3050B	EPA 6020	0.2	0.022	mg/Kg			
Beryllium	1.60E+02	EPA 3050B	EPA 6020	0.2	0.022	mg/Kg			
Cadmium	8.00E+01	EPA 3050B	EPA 6020	0.2	0.01	mg/Kg			
Calcium	NA	EPA 3050B	EPA 6010B	55.0	3.10	mg/Kg			
Chromium	2.40E+02	EPA 3050B	EPA 6020	0.2	0.072	mg/Kg			
Cobalt	NA	EPA 3050B	EPA 6020	0.2	0.019	mg/Kg			
Copper	3.20E+03	EPA 3050B	EPA 6020	0.2	0.098	mg/Kg			
Iron	5.60E+04	EPA 3050B	EPA 6010B	10.0	0.61	mg/Kg			
Lead	NA	EPA 3050B	EPA 6020	0.2	0.011	mg/Kg			
Magnesium	NA	EPA 3050B	EPA 6010B	55.0	3.20	mg/Kg			
Manganese	1.12E+04	EPA 3050B	EPA 6020	0.5	0.105	mg/Kg			
Mercury	2.40E+01	EPA 7471A	EPA 7471A	0.02	0.0063	mg/Kg			
Nickel	1.60E+03	EPA 3050B	EPA 6020	0.2	0.071	mg/Kg			
Potassium	NA	EPA 3050B	EPA 6010B	165.0	16.00	mg/Kg			
Selenium	4.00E+02	EPA 3050B	EPA 6020	0.7	0.202	mg/Kg			
Silver	4.00E+02	EPA 3050B	EPA 6020	0.2	0.007	mg/Kg			
Sodium	NA	EPA 3050B	EPA 6020	100.0	14.70	mg/Kg			
Thallium	NA	EPA 3050B	EPA 6020	0.5	0.13	mg/Kg			
Vanadium	5.60E+00	EPA 3050B	EPA 6020	0.7	0.473	mg/Kg			
Zinc	2.40E+04	EPA 3050B	EPA 6020	0.7	0.32	mg/Kg			
Soil pH		9045C		± 0.1		std pH units			

Note: soil moisture is also determined automatically by the lab for each sample. Moisture = (wet weight - dry weight)/wet weight.

Cooler/TB~~-~~ Dig/IR cor 4.6 unc 4.9
Cooler Dsc [illegible] @ Lab ___
Wet/Packs Packing Blue ice

[illegible] = 12.7/12.4

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 580-28720-1

Login Number: 28720

List Source: TestAmerica Seattle

List Number: 1

Creator: Kalicki, Samantha

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 580-29110-1

Job Description: Monte Cristo

For:
Hart Crowser, Inc.
1700 Westlake Avenue N
Suite 200
Seattle, WA 98109-3056

Attention: Anne Conrad

Approved for release.
Kristine Allen
Project Manager I
10/25/2011 5:33 PM

Kristine Allen
Project Manager I
kristine.allen@testamericainc.com
10/25/2011

cc: Roger McGinnis

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This report shall not be reproduced except in full, without prior express written approval by the laboratory. The results relate only to the item(s) tested and the sample(s) as received by the laboratory.

The results included in this report have been reviewed for compliance with the laboratory QA/QC plan and meet all requirements of NELAC. All data have been found to be compliant with laboratory protocol, with the exception of any items noted in the case narrative.

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CASE NARRATIVE
Client: Hart Crowser, Inc.
Project: Monte Cristo

Report Number: 580-29110-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

It should be noted that samples with elevated Reporting Limits (RLs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the RLs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT
The samples were received on 10/05/2011; the samples arrived in good condition, properly preserved and on ice. The temperature of the coolers at receipt was 4.9 C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

TOTAL METALS (ICP)
Samples PUSHER S-1 0-6 (580-29110-1), PUSHER S-1 6-12 (580-29110-2), PUSHER S-2 0-6 (580-29110-3), PUSHER S-2 6-12 (580-29110-4), PUSHER S-3 0-6 (580-29110-5), PUSHER S-3 6-12 (580-29110-6), IBEX S1 0-6 (580-29110-7), IBEX S2 0-6 (580-29110-8), O+B UPPER S1 0-6 (580-29110-9), O+B UPPER S2 0-6 (580-29110-10), O+B UPPER S3 0-6 (580-29110-11), O+B LOWER S1 0-6 (580-29110-12), O+B LOWER S2 0-6 (580-29110-13), 76-7 (580-29110-14), 76-8 (580-29110-15), CONGRESS S1 0-6 (580-29110-16), CONGRESS S1 6-12 (580-29110-17), PORTLAND 2 S1 0-6 (580-29110-18), PORTLAND 2 S1 6-12 (580-29110-19), PORTLAND 2 S2 0-6 (580-29110-20), CONGRESS S2 0-6 (580-29110-21), CONGRESS S2 6-12 (580-29110-22) and PORTLAND 2 S2 6-12 (580-29110-23) were analyzed for total metals (ICP) in accordance with EPA SW-846 Method 6010B. The samples were prepared on 10/18/2011 and analyzed on 10/18/2011, 10/19/2011 and 10/20/2011.

Samples PUSHER S-1 0-6 (580-29110-1)[100X], PUSHER S-1 6-12 (580-29110-2)[100X], PUSHER S-2 0-6 (580-29110-3)[100X], PUSHER S-2 6-12 (580-29110-4)[100X], PUSHER S-3 0-6 (580-29110-5)[100X], PUSHER S-3 6-12 (580-29110-6)[100X], IBEX S1 0-6 (580-29110-7)[100X], IBEX S2 0-6 (580-29110-8)[100X], O+B UPPER S1 0-6 (580-29110-9)[100X], O+B UPPER S2 0-6 (580-29110-10)[100X], O+B UPPER S3 0-6 (580-29110-11)[100X], O+B LOWER S1 0-6 (580-29110-12)[100X], O+B LOWER S2 0-6 (580-29110-13)[100X], 76-8 (580-29110-15)[100X], CONGRESS S1 0-6 (580-29110-16)[100X], CONGRESS S1 6-12 (580-29110-17)[100X], PORTLAND 2 S1 0-6 (580-29110-18)[100X], PORTLAND 2 S1 6-12 (580-29110-19)[100X], PORTLAND 2 S2 0-6 (580-29110-20)[100X], CONGRESS S2 0-6 (580-29110-21)[100X], CONGRESS S2 6-12 (580-29110-22)[100X] and PORTLAND 2 S2 6-12 (580-29110-23)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Calcium and Iron were detected in method blank (MB) 580-97966/21-A in batch 580-98052 at levels that were above the method detection limit but below the reporting limit. The values should be considered estimates, and have been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Iron failed the recovery low for the matrix spike (MS) of sample PUSHER S-1 0-6MS (580-29110-1) in batch 580-98052[100X]. Iron failed the recovery high for the matrix spike duplicate (MSD). The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Iron was detected in method blank (MB) 580-97974/20-A in batch 580-98054 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Calcium failed the recovery high for the MS of sample PORTLAND 2 S1 0-6MS (580-29110-18) in batch 580-98054.

Magnesium failed the recovery low for the MS/MSD of sample PORTLAND 2 S1 0-6MS (580-29110-18) in batch 580-98054. The

presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Calcium, Iron and Magnesium failed the recovery high for the MS of sample PORTLAND 2 S1 0-6MS (580-29110-18) in batch 580-98054[100X]. Calcium and Iron failed the recovery high for the MSD. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount

Potassium failed the recovery low for the MS/MSD of sample PORTLAND 2 S1 0-6MS (580-29110-18) in batch 580-98286.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL METALS (ICPMS)

Samples PUSHER S-1 0-6 (580-29110-1), PUSHER S-1 6-12 (580-29110-2), PUSHER S-2 0-6 (580-29110-3), PUSHER S-2 6-12 (580-29110-4), PUSHER S-3 0-6 (580-29110-5), PUSHER S-3 6-12 (580-29110-6), IBEX S1 0-6 (580-29110-7), IBEX S2 0-6 (580-29110-8), O+B UPPER S1 0-6 (580-29110-9), O+B UPPER S2 0-6 (580-29110-10), O+B UPPER S3 0-6 (580-29110-11), O+B LOWER S1 0-6 (580-29110-12), O+B LOWER S2 0-6 (580-29110-13), 76-7 (580-29110-14), 76-8 (580-29110-15), CONGRESS S1 0-6 (580-29110-16), CONGRESS S1 6-12 (580-29110-17), PORTLAND 2 S1 0-6 (580-29110-18), PORTLAND 2 S1 6-12 (580-29110-19), PORTLAND 2 S2 0-6 (580-29110-20), CONGRESS S2 0-6 (580-29110-21), CONGRESS S2 6-12 (580-29110-22) and PORTLAND 2 S2 6-12 (580-29110-23) were analyzed for total metals (ICPMS) in accordance with EPA SW-846 Method 6020. The samples were prepared on 10/18/2011 and analyzed on 10/18/2011 and 10/19/2011.

Samples PUSHER S-1 6-12 (580-29110-2)[100X], PUSHER S-2 0-6 (580-29110-3)[100X], PUSHER S-2 0-6 (580-29110-3)[1000X], PUSHER S-2 6-12 (580-29110-4)[100X], PUSHER S-3 0-6 (580-29110-5)[100X], PUSHER S-3 6-12 (580-29110-6)[100X], IBEX S1 0-6 (580-29110-7)[100X], IBEX S2 0-6 (580-29110-8)[100X], O+B UPPER S1 0-6 (580-29110-9)[100X], O+B UPPER S1 0-6 (580-29110-9)[1000X], O+B UPPER S2 0-6 (580-29110-10)[100X], O+B UPPER S2 0-6 (580-29110-10)[1000X], O+B UPPER S3 0-6 (580-29110-11)[100X], O+B UPPER S3 0-6 (580-29110-11)[1000X], O+B LOWER S1 0-6 (580-29110-12)[100X], O+B LOWER S2 0-6 (580-29110-13)[100X], O+B LOWER S2 0-6 (580-29110-13)[1000X], CONGRESS S1 0-6 (580-29110-16)[100X], CONGRESS S1 6-12 (580-29110-17)[100X], PORTLAND 2 S1 0-6 (580-29110-18)[50X], PORTLAND 2 S1 6-12 (580-29110-19)[100X], PORTLAND 2 S2 0-6 (580-29110-20)[100X], CONGRESS S2 0-6 (580-29110-21)[100X], CONGRESS S2 6-12 (580-29110-22)[100X] and PORTLAND 2 S2 6-12 (580-29110-23)[100X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Aluminum, Copper failed the recovery criteria high for the matrix spike (MS) of sample PUSHER S-1 0-6MS (580-29110-1) in batch 580-98033. Aluminum, Copper and Lead failed the recovery criteria high for the matrix spike duplicate (MSD). The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Antimony failed the recovery criteria low for the MS/MSD of sample PUSHER S-1 0-6MSD (580-29110-1) in batch 580-98109. Arsenic failed the recovery criteria high for the MS/MSD. Manganese failed the critical recovery high for the MSD only.

Lead was detected in method blank MB 580-97974/20-A in batch 580-98033 at a level that was above the method detection limit but below the reporting limit. The value should be considered an estimate, and has been flagged “J”. If the associated sample reported a result above the MDL and/or RL, the result has been “B” flagged.

Aluminum failed the recovery criteria high for the MS/MSD of sample PORTLAND 2 S1 0-6MSD (580-29110-18) in batch 580-98033. Several analytes failed the recovery criteria high for the MSD. Also, Beryllium and Silver exceeded the rpd limit. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

Antimony and Arsenic failed the recovery criteria low for the MS of sample PORTLAND 2 S1 0-6MSD (580-29110-18) in batch 580-98109. Manganese failed the recovery criteria high. Antimony failed the recovery low for the MSD. Manganese failed the recovery high for the MSD. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No other difficulties were encountered during the metals analyses.

All other quality control parameters were within the acceptance limits.

TOTAL MERCURY

Samples PUSHER S-1 0-6 (580-29110-1), PUSHER S-1 6-12 (580-29110-2), PUSHER S-2 0-6 (580-29110-3), PUSHER S-2 6-12 (580-29110-4), PUSHER S-3 0-6 (580-29110-5), PUSHER S-3 6-12 (580-29110-6), IBEX S1 0-6 (580-29110-7), IBEX S2 0-6 (580-29110-8), O+B UPPER S1 0-6 (580-29110-9), O+B UPPER S2 0-6 (580-29110-10), O+B UPPER S3 0-6 (580-29110-11), O+B LOWER S1 0-6 (580-29110-12), O+B LOWER S2 0-6 (580-29110-13), 76-7 (580-29110-14), 76-8 (580-29110-15), CONGRESS S1 0-6 (580-29110-16), CONGRESS S1 6-12 (580-29110-17), PORTLAND 2 S1 0-6 (580-29110-18), PORTLAND 2 S1 6-12 (580-29110-19), PORTLAND 2 S2 0-6 (580-29110-20), CONGRESS S2 0-6 (580-29110-21), CONGRESS S2 6-12 (580-29110-22) and PORTLAND 2 S2 6-12 (580-29110-23) were analyzed for total mercury in accordance with EPA SW-846 Method 7471A. The samples were prepared and analyzed on 10/18/2011.

Samples PUSHER S-1 0-6 (580-29110-1)[10X], PUSHER S-1 6-12 (580-29110-2)[10X], PUSHER S-2 0-6 (580-29110-3)[10X], PUSHER S-2 6-12 (580-29110-4)[10X], PUSHER S-3 6-12 (580-29110-6)[10X], IBEX S1 0-6 (580-29110-7)[10X], O+B UPPER S1 0-6 (580-29110-9)[10X], O+B UPPER S2 0-6 (580-29110-10)[10X], O+B UPPER S3 0-6 (580-29110-11)[10X], O+B LOWER S1 0-6 (580-29110-12)[10X], O+B LOWER S2 0-6 (580-29110-13)[10X], 76-7 (580-29110-14)[10X], CONGRESS S1 0-6 (580-29110-16)[10X], CONGRESS S1 6-12 (580-29110-17)[10X] and PORTLAND 2 S1 0-6 (580-29110-18)[10X] required dilution prior to analysis. The reporting limits have been adjusted accordingly.

Mercury failed the recovery criteria high for the MSD of sample PUSHER S-1 0-6MSD (580-29110-1) in batch 580-98059.

Mercury failed the recovery criteria low for the MS of sample PORTLAND 2 S1 0-6MS (580-29110-18) in batch 580-98059. The presence of the '4' qualifier in the report indicates analytes where the concentration in the unspiked sample exceeded four times the spiking amount.

No other difficulties were encountered during the mercury analyses.

All other quality control parameters were within the acceptance limits.

CORROSIVITY (PH)

Samples PUSHER S-1 0-6 (580-29110-1), PUSHER S-1 6-12 (580-29110-2), PUSHER S-2 0-6 (580-29110-3), PUSHER S-2 6-12 (580-29110-4), PUSHER S-3 0-6 (580-29110-5), PUSHER S-3 6-12 (580-29110-6), IBEX S1 0-6 (580-29110-7), IBEX S2 0-6 (580-29110-8), O+B UPPER S1 0-6 (580-29110-9), O+B UPPER S2 0-6 (580-29110-10), O+B UPPER S3 0-6 (580-29110-11), O+B LOWER S1 0-6 (580-29110-12), O+B LOWER S2 0-6 (580-29110-13), 76-7 (580-29110-14), 76-8 (580-29110-15), CONGRESS S1 0-6 (580-29110-16), CONGRESS S1 6-12 (580-29110-17), PORTLAND 2 S1 0-6 (580-29110-18), PORTLAND 2 S1 6-12 (580-29110-19), PORTLAND 2 S2 0-6 (580-29110-20), CONGRESS S2 0-6 (580-29110-21), CONGRESS S2 6-12 (580-29110-22) and PORTLAND 2 S2 6-12 (580-29110-23) were analyzed for corrosivity (pH) in accordance with EPA SW-846 Method 9045C. The samples were analyzed on 10/17/2011.

No difficulties were encountered during the pH analyses.

All quality control parameters were within the acceptance limits.

PERCENT SOLIDS

Samples PUSHER S-1 0-6 (580-29110-1), PUSHER S-1 6-12 (580-29110-2), PUSHER S-2 0-6 (580-29110-3), PUSHER S-2 6-12 (580-29110-4), PUSHER S-3 0-6 (580-29110-5), PUSHER S-3 6-12 (580-29110-6), IBEX S1 0-6 (580-29110-7), IBEX S2 0-6 (580-29110-8), O+B UPPER S1 0-6 (580-29110-9), O+B UPPER S2 0-6 (580-29110-10), O+B UPPER S3 0-6 (580-29110-11), O+B LOWER S1 0-6 (580-29110-12), O+B LOWER S2 0-6 (580-29110-13), 76-7 (580-29110-14), 76-8 (580-29110-15), CONGRESS S1 0-6 (580-29110-16), CONGRESS S1 6-12 (580-29110-17), PORTLAND 2 S1 0-6 (580-29110-18), PORTLAND 2 S1 6-12 (580-29110-19), PORTLAND 2 S2 0-6 (580-29110-20), CONGRESS S2 0-6 (580-29110-21), CONGRESS S2 6-12 (580-29110-22) and PORTLAND 2 S2 6-12 (580-29110-23) were analyzed for percent solids in accordance with EPA Method 160.3 Modified. The samples were analyzed on 10/06/2011.

No difficulties were encountered during the % solids analyses.

All quality control parameters were within the acceptance limits.

SAMPLE SUMMARY

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
580-29110-1	PUSHER S-1 0-6	Solid	09/27/2011 1130	10/05/2011 1635
580-29110-2	PUSHER S-1 6-12	Solid	09/27/2011 1140	10/05/2011 1635
580-29110-3	PUSHER S-2 0-6	Solid	09/27/2011 1155	10/05/2011 1635
580-29110-4	PUSHER S-2 6-12	Solid	09/27/2011 1205	10/05/2011 1635
580-29110-5	PUSHER S-3 0-6	Solid	09/27/2011 1220	10/05/2011 1635
580-29110-6	PUSHER S-3 6-12	Solid	09/27/2011 1225	10/05/2011 1635
580-29110-7	IBEX S1 0-6	Solid	09/28/2011 1430	10/05/2011 1635
580-29110-8	IBEX S2 0-6	Solid	09/28/2011 1440	10/05/2011 1635
580-29110-9	O+B UPPER S1 0-6	Solid	09/28/2011 1500	10/05/2011 1635
580-29110-10	O+B UPPER S2 0-6	Solid	09/28/2011 1525	10/05/2011 1635
580-29110-11	O+B UPPER S3 0-6	Solid	09/28/2011 1540	10/05/2011 1635
580-29110-12	O+B LOWER S1 0-6	Solid	09/28/2011 1620	10/05/2011 1635
580-29110-13	O+B LOWER S2 0-6	Solid	09/28/2011 1645	10/05/2011 1635
580-29110-14	76-7	Solid	09/29/2011 1650	10/05/2011 1635
580-29110-15	76-8	Solid	09/29/2011 1637	10/05/2011 1635
580-29110-16	CONGRESS S1 0-6	Solid	09/29/2011 1340	10/05/2011 1635
580-29110-17	CONGRESS S1 6-12	Solid	09/29/2011 1350	10/05/2011 1635
580-29110-18	PORTLAND 2 S1 0-6	Solid	09/29/2011 1405	10/05/2011 1635
580-29110-19	PORTLAND 2 S1 6-12	Solid	09/29/2011 1415	10/05/2011 1635
580-29110-20	PORTLAND 2 S2 0-6	Solid	09/29/2011 1445	10/05/2011 1635
580-29110-21	CONGRESS S2 0-6	Solid	09/29/2011 1450	10/05/2011 1635
580-29110-22	CONGRESS S2 6-12	Solid	09/29/2011 1500	10/05/2011 1635
580-29110-23	PORTLAND 2 S2 6-12	Solid	09/29/2011 1500	10/05/2011 1635

METHOD SUMMARY

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Description	Lab Location	Method	Preparation Method
Matrix Solid			
Metals (ICP)	TAL SEA	SW846 6010B	
Preparation, Metals	TAL SEA		SW846 3050B
Metals (ICP/MS)	TAL SEA	SW846 6020	
Preparation, Metals	TAL SEA		SW846 3050B
Mercury (CVAA)	TAL SEA	SW846 7471A	
Preparation, Mercury	TAL SEA		SW846 7471A
pH	TAL SEA	SW846 9045C	
Percent Moisture	TAL SEA	EPA Moisture	

Lab References:

TAL SEA = TestAmerica Seattle

Method References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-1 0-6**

Lab Sample ID: 580-29110-1 Date Sampled: 09/27/2011 1130
Client Matrix: Solid % Moisture: 8.5 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1805			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		450	B	3.0	53
Magnesium		3100		3.1	53

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.1285 g
Analysis Date:	10/19/2011 2024			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1100		16	160

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1811			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		33000	B	59	970

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	033SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1706			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		14000		2.9	29
Barium		25		0.029	0.19
Beryllium		0.082	J	0.021	0.19
Cadmium		0.11	J	0.0078	0.19
Chromium		6.2		0.11	0.19
Cobalt		4.2		0.018	0.19
Copper		360		0.095	0.19
Lead		59		0.013	0.19
Nickel		2.7		0.20	0.19
Selenium		1.5		0.20	0.68
Silver		0.47		0.012	0.19
Sodium		76	J	38	97

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-1 0-6**

Lab Sample ID: 580-29110-1 Date Sampled: 09/27/2011 1130
Client Matrix: Solid % Moisture: 8.5 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.37	J	0.13	0.48
Vanadium		46		0.46	0.68
Zinc		34		1.1	0.68

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.1285 g
Analysis Date:	10/19/2011 1147			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.3		0.041	0.19
Arsenic		710		0.17	0.48
Manganese		120		0.16	0.48

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.7133 g
Analysis Date:	10/18/2011 1459			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.28		0.048	0.15

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-1 6-12**

Lab Sample ID: 580-29110-2 Date Sampled: 09/27/2011 1140
Client Matrix: Solid % Moisture: 20.7 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0501 g
Analysis Date:	10/18/2011 1917			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		440	B	3.7	66
Magnesium		4400		3.8	66

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0501 g
Analysis Date:	10/19/2011 2103			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1400		19	200

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.0501 g
Analysis Date:	10/18/2011 1923			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		42000	B	73	1200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	038SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0501 g
Analysis Date:	10/18/2011 1730			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		14000		3.6	36
Barium		29		0.036	0.24
Beryllium		0.080	J	0.026	0.24
Cadmium		0.092	J	0.0096	0.24
Chromium		6.7		0.14	0.24
Cobalt		8.0		0.023	0.24
Copper		320		0.12	0.24
Lead		26		0.016	0.24
Nickel		2.9		0.24	0.24
Selenium		1.4		0.24	0.84
Silver		0.58		0.014	0.24
Sodium		92	J	47	120

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-1 6-12**

Lab Sample ID: 580-29110-2 Date Sampled: 09/27/2011 1140
Client Matrix: Solid % Moisture: 20.7 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.47	J	0.16	0.60
Vanadium		59		0.57	0.84
Zinc		39		1.3	0.84

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0501 g
Analysis Date:	10/19/2011 1449			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		1.4		0.050	0.24

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0501 g
Analysis Date:	10/19/2011 1225			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		990		2.2	6.0
Manganese		190		2.0	6.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.7609 g
Analysis Date:	10/18/2011 1507			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.18		0.052	0.17

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-2 0-6**

Lab Sample ID: 580-29110-3 Date Sampled: 09/27/2011 1155
Client Matrix: Solid % Moisture: 3.8 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0624 g
Analysis Date:	10/18/2011 1929			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		660	B	3.0	54
Magnesium		3900		3.1	54

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0624 g
Analysis Date:	10/19/2011 2109			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		2100		16	160

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.0624 g
Analysis Date:	10/18/2011 1935			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		100000	B	60	980

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	039SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0624 g
Analysis Date:	10/18/2011 1734			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7200		2.9	29
Barium		64		0.029	0.20
Beryllium		0.079	J	0.022	0.20
Cadmium		0.35		0.0078	0.20
Chromium		5.3		0.11	0.20
Cobalt		9.0		0.019	0.20
Copper		590		0.096	0.20
Lead		16		0.013	0.20
Nickel		1.9		0.20	0.20
Selenium		25		0.20	0.69
Silver		5.7		0.012	0.20
Sodium		100		38	98

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-2 0-6**

Lab Sample ID: 580-29110-3 Date Sampled: 09/27/2011 1155
Client Matrix: Solid % Moisture: 3.8 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.37	J	0.13	0.49
Vanadium		48		0.46	0.69
Zinc		68		1.1	0.69

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0624 g
Analysis Date:	10/19/2011 1228			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		20		0.41	2.0
Manganese		290		1.7	4.9

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	1000			Initial Weight/Volume:	1.0624 g
Analysis Date:	10/19/2011 1240			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		31000		18	49

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.7785 g
Analysis Date:	10/18/2011 1509			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.88		0.042	0.13

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-2 6-12**

Lab Sample ID: 580-29110-4 Date Sampled: 09/27/2011 1205
Client Matrix: Solid % Moisture: 17.5 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.1030 g
Analysis Date:	10/18/2011 1955			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		520	B	3.4	60
Magnesium		4500		3.5	60

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.1030 g
Analysis Date:	10/19/2011 2114			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1800		18	180

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.1030 g
Analysis Date:	10/18/2011 2001			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		83000	B	67	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	040SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1030 g
Analysis Date:	10/18/2011 1739			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8800		3.3	33
Barium		52		0.033	0.22
Beryllium		0.084	J	0.024	0.22
Cadmium		0.41		0.0088	0.22
Chromium		6.9		0.12	0.22
Cobalt		29		0.021	0.22
Copper		430		0.11	0.22
Lead		34		0.014	0.22
Nickel		1.9		0.22	0.22
Selenium		16		0.22	0.77
Silver		4.2		0.013	0.22
Sodium		78	J	43	110

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-2 6-12**

Lab Sample ID: 580-29110-4 Date Sampled: 09/27/2011 1205
Client Matrix: Solid % Moisture: 17.5 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.37	J	0.14	0.55
Vanadium		63		0.52	0.77
Zinc		60		1.2	0.77

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.1030 g
Analysis Date:	10/19/2011 1231			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		19		0.46	2.2
Arsenic		20000		2.0	5.5
Manganese		320		1.9	5.5

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.7496 g
Analysis Date:	10/18/2011 1515			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.70		0.051	0.16

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-3 0-6**

Lab Sample ID: 580-29110-5 Date Sampled: 09/27/2011 1220
Client Matrix: Solid % Moisture: 2.6 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0223 g
Analysis Date:	10/18/2011 2007			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		570	B	3.1	55
Magnesium		3800		3.2	55

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0223 g
Analysis Date:	10/19/2011 2119			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1200		16	170

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.0223 g
Analysis Date:	10/18/2011 2012			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		75000	B	61	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	041SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0223 g
Analysis Date:	10/18/2011 1744			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5700		3.0	30
Barium		31		0.030	0.20
Beryllium		0.041	J	0.022	0.20
Cadmium		0.086	J	0.0080	0.20
Chromium		4.8		0.11	0.20
Cobalt		5.0		0.019	0.20
Copper		280		0.098	0.20
Lead		13		0.013	0.20
Nickel		1.5		0.20	0.20
Selenium		6.6		0.20	0.70
Silver		2.9		0.012	0.20
Sodium		86	J	39	100

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-3 0-6**

Lab Sample ID: 580-29110-5 Date Sampled: 09/27/2011 1220
Client Matrix: Solid % Moisture: 2.6 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.17	J	0.13	0.50
Vanadium		44		0.48	0.70
Zinc		31		1.1	0.70

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0223 g
Analysis Date:	10/19/2011 1234			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		3.2		0.42	2.0
Arsenic		5100		1.8	5.0
Manganese		220		1.7	5.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6675 g
Analysis Date:	10/18/2011 1647			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.095		0.0048	0.015

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-3 6-12**

Lab Sample ID: 580-29110-6 Date Sampled: 09/27/2011 1225
Client Matrix: Solid % Moisture: 22.3 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0642 g
Analysis Date:	10/18/2011 2018			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		630	B	3.7	67
Magnesium		3000		3.9	67

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0642 g
Analysis Date:	10/19/2011 2125			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1200		19	200

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.0642 g
Analysis Date:	10/18/2011 2024			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		78000	B	74	1200

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	044SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0642 g
Analysis Date:	10/18/2011 1759			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6100		3.6	36
Barium		28		0.036	0.24
Beryllium		0.054	J	0.027	0.24
Cadmium		0.15	J	0.0097	0.24
Chromium		6.8		0.14	0.24
Cobalt		7.1		0.023	0.24
Copper		700		0.12	0.24
Lead		21		0.016	0.24
Nickel		1.5		0.25	0.24
Selenium		8.7		0.24	0.85
Silver		2.9		0.015	0.24
Sodium		85	J	47	120

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PUSHER S-3 6-12**

Lab Sample ID: 580-29110-6 Date Sampled: 09/27/2011 1225
Client Matrix: Solid % Moisture: 22.3 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.24	J	0.16	0.60
Vanadium		38		0.57	0.85
Zinc		31		1.4	0.85

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0642 g
Analysis Date:	10/19/2011 1256			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		4.3		0.51	2.4
Arsenic		6700		2.2	6.0
Manganese		220		2.1	6.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6656 g
Analysis Date:	10/18/2011 1518			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.23		0.061	0.19

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **IBEX S1 0-6**

Lab Sample ID: 580-29110-7 Date Sampled: 09/28/2011 1430
Client Matrix: Solid % Moisture: 3.3 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.1899 g
Analysis Date:	10/18/2011 2030			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		4200	B	2.7	48
Magnesium		2000		2.8	48

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.1899 g
Analysis Date:	10/19/2011 2131			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		490		14	140

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.1899 g
Analysis Date:	10/18/2011 2036			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		85000	B	53	870

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	045SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1899 g
Analysis Date:	10/18/2011 1803			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5000		2.6	26
Barium		51		0.026	0.17
Beryllium		0.57		0.019	0.17
Cadmium		5.0		0.0069	0.17
Chromium		3.3		0.098	0.17
Cobalt		26		0.017	0.17
Copper		56		0.085	0.17
Lead		360		0.011	0.17
Nickel		2.7		0.18	0.17
Selenium		1.1		0.18	0.61
Silver		9.2		0.010	0.17
Sodium		72	J	34	87

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **IBEX S1 0-6**

Lab Sample ID: 580-29110-7 Date Sampled: 09/28/2011 1430
Client Matrix: Solid % Moisture: 3.3 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.93		0.11	0.43
Vanadium		82		0.41	0.61
Zinc		510		0.97	0.61

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.1899 g
Analysis Date:	10/19/2011 1259			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		110		0.36	1.7
Arsenic		4600		1.6	4.3
Manganese		10000		1.5	4.3

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6369 g
Analysis Date:	10/18/2011 1520			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.90		0.051	0.16

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **IBEX S2 0-6**

Lab Sample ID: 580-29110-8 Date Sampled: 09/28/2011 1440
Client Matrix: Solid % Moisture: 1.8 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.1685 g
Analysis Date:	10/18/2011 2042			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		240	B	2.7	48
Magnesium		420		2.8	48

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.1685 g
Analysis Date:	10/19/2011 2137			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		88	J	14	140

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.1685 g
Analysis Date:	10/18/2011 2048			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		11000	B	53	870

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	046SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1685 g
Analysis Date:	10/18/2011 1808			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		5500		2.6	26
Barium		7.0		0.026	0.17
Beryllium		0.060	J	0.019	0.17
Cadmium		0.20		0.0070	0.17
Chromium		2.5		0.098	0.17
Cobalt		1.7		0.017	0.17
Copper		4.1		0.085	0.17
Lead		18		0.011	0.17
Nickel		1.3		0.18	0.17
Selenium		0.29	J	0.18	0.61
Silver		0.52		0.010	0.17
Sodium		61	J	34	87

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **IBEX S2 0-6**

Lab Sample ID: 580-29110-8 Date Sampled: 09/28/2011 1440
Client Matrix: Solid % Moisture: 1.8 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		ND		0.11	0.44
Vanadium		33		0.41	0.61
Zinc		22		0.98	0.61

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.1685 g
Analysis Date:	10/19/2011 1302			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		3.9		0.37	1.7
Arsenic		89		1.6	4.4
Manganese		170		1.5	4.4

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6895 g
Analysis Date:	10/18/2011 1649			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.054		0.0047	0.015

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B UPPER S1 0-6**

Lab Sample ID: 580-29110-9 Date Sampled: 09/28/2011 1500
Client Matrix: Solid % Moisture: 4.6 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0508 g
Analysis Date:	10/18/2011 2110			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		460	B	3.1	55
Magnesium		200		3.2	55

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0508 g
Analysis Date:	10/19/2011 2143			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		330		16	160

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.0508 g
Analysis Date:	10/18/2011 2116			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		150000	B	61	1000

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	047SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0508 g
Analysis Date:	10/18/2011 1813			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		2600		3.0	30
Barium		17		0.030	0.20
Beryllium		0.069	J	0.022	0.20
Cadmium		0.53		0.0080	0.20
Chromium		1.7		0.11	0.20
Cobalt		78		0.019	0.20
Copper		1700		0.098	0.20
Lead		1000		0.013	0.20
Nickel		9.2		0.20	0.20
Selenium		2.5		0.20	0.70
Silver		70		0.012	0.20
Sodium		ND		39	100

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B UPPER S1 0-6**

Lab Sample ID: 580-29110-9 Date Sampled: 09/28/2011 1500
Client Matrix: Solid % Moisture: 4.6 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.15	J	0.13	0.50
Vanadium		13		0.47	0.70
Zinc		140		1.1	0.70

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0508 g
Analysis Date:	10/19/2011 1305			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		28		0.42	2.0
Manganese		320		1.7	5.0

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	1000			Initial Weight/Volume:	1.0508 g
Analysis Date:	10/19/2011 1321			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		52000		18	50

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.9407 g
Analysis Date:	10/18/2011 1524			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.43		0.035	0.11

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B UPPER S2 0-6**

Lab Sample ID: 580-29110-10 Date Sampled: 09/28/2011 1525
Client Matrix: Solid % Moisture: 6.9 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.1281 g
Analysis Date:	10/18/2011 2122			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		2300	B	3.0	52
Magnesium		1100		3.0	52

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.1281 g
Analysis Date:	10/19/2011 2149			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		130	J	15	160

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.1281 g
Analysis Date:	10/18/2011 2128			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		200000	B	58	950

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	048SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1281 g
Analysis Date:	10/18/2011 1818			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6700		2.9	29
Barium		110		0.029	0.19
Beryllium		0.21		0.021	0.19
Cadmium		2.0		0.0076	0.19
Chromium		5.3		0.11	0.19
Cobalt		66		0.018	0.19
Copper		910		0.093	0.19
Lead		400		0.012	0.19
Nickel		18		0.19	0.19
Selenium		2.0		0.19	0.67
Silver		31		0.011	0.19
Sodium		ND		37	95

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B UPPER S2 0-6**

Lab Sample ID: 580-29110-10 Date Sampled: 09/28/2011 1525
Client Matrix: Solid % Moisture: 6.9 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		ND		0.12	0.48
Vanadium		19		0.45	0.67
Zinc		420		1.1	0.67

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.1281 g
Analysis Date:	10/19/2011 1308			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		11		0.40	1.9
Manganese		2100		1.6	4.8

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	1000			Initial Weight/Volume:	1.1281 g
Analysis Date:	10/19/2011 1324			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		32000		17	48

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.7476 g
Analysis Date:	10/18/2011 1526			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.67		0.045	0.14

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B UPPER S3 0-6**

Lab Sample ID: 580-29110-11 Date Sampled: 09/28/2011 1540
Client Matrix: Solid % Moisture: 3.1 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.2370 g
Analysis Date:	10/18/2011 2134			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		580	B	2.6	46
Magnesium		3200		2.7	46

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.2370 g
Analysis Date:	10/19/2011 2207			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		640		13	140

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.2370 g
Analysis Date:	10/18/2011 2140			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		130000	B	51	830

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	049SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.2370 g
Analysis Date:	10/18/2011 1823			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		12000		2.5	25
Barium		59		0.025	0.17
Beryllium		0.094	J	0.018	0.17
Cadmium		0.54		0.0067	0.17
Chromium		4.5		0.094	0.17
Cobalt		24		0.016	0.17
Copper		520		0.082	0.17
Lead		1200		0.011	0.17
Nickel		6.9		0.17	0.17
Selenium		0.93		0.17	0.58
Silver		34		0.010	0.17
Sodium		ND		33	83

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B UPPER S3 0-6**

Lab Sample ID: 580-29110-11 Date Sampled: 09/28/2011 1540
Client Matrix: Solid % Moisture: 3.1 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.16	J	0.11	0.42
Vanadium		23		0.39	0.58
Zinc		120		0.93	0.58

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.2370 g
Analysis Date:	10/19/2011 1334			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		12		0.35	1.7
Manganese		1200		1.4	4.2

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	1000			Initial Weight/Volume:	1.2370 g
Analysis Date:	10/19/2011 1349			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		20000		15	42

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.8093 g
Analysis Date:	10/18/2011 1528			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.0		0.040	0.13

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B LOWER S1 0-6**

Lab Sample ID: 580-29110-12 Date Sampled: 09/28/2011 1620
Client Matrix: Solid % Moisture: 2.6 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.2905 g
Analysis Date:	10/18/2011 2146			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		300	B	2.5	44
Magnesium		3400		2.5	44

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.2905 g
Analysis Date:	10/19/2011 2213			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1700		13	130

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.2905 g
Analysis Date:	10/18/2011 2152			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		81000	B	49	800

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	052SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.2905 g
Analysis Date:	10/18/2011 1837			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		13000		2.4	24
Barium		85		0.024	0.16
Beryllium		0.11	J	0.018	0.16
Cadmium		0.70		0.0064	0.16
Chromium		4.7		0.090	0.16
Cobalt		6.3		0.015	0.16
Copper		190		0.078	0.16
Lead		970		0.010	0.16
Nickel		8.1		0.16	0.16
Selenium		0.55	J	0.16	0.56
Silver		8.4		0.0096	0.16
Sodium		66	J	31	80

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B LOWER S1 0-6**

Lab Sample ID: 580-29110-12 Date Sampled: 09/28/2011 1620
Client Matrix: Solid % Moisture: 2.6 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.28	J	0.10	0.40
Vanadium		17		0.38	0.56
Zinc		150		0.89	0.56

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.2905 g
Analysis Date:	10/19/2011 1337			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		2.0		0.33	1.6
Arsenic		4200		1.4	4.0
Manganese		1100		1.4	4.0

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.7312 g
Analysis Date:	10/18/2011 1530			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.0		0.044	0.14

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B LOWER S2 0-6**

Lab Sample ID: 580-29110-13 Date Sampled: 09/28/2011 1645
Client Matrix: Solid % Moisture: 3.1 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.2290 g
Analysis Date:	10/18/2011 2158			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		670	B	2.6	46
Magnesium		2200		2.7	46

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.2290 g
Analysis Date:	10/19/2011 2218			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		740		13	140

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.2290 g
Analysis Date:	10/18/2011 2204			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		96000	B	51	840

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	053SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.2290 g
Analysis Date:	10/18/2011 1842			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		7200		2.5	25
Barium		29		0.025	0.17
Beryllium		0.19		0.018	0.17
Cadmium		0.95		0.0067	0.17
Chromium		3.6		0.095	0.17
Cobalt		44		0.016	0.17
Copper		340		0.082	0.17
Lead		640		0.011	0.17
Nickel		10		0.17	0.17
Selenium		1.8		0.17	0.59
Silver		39		0.010	0.17
Sodium		ND		33	84

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **O+B LOWER S2 0-6**

Lab Sample ID: 580-29110-13 Date Sampled: 09/28/2011 1645
Client Matrix: Solid % Moisture: 3.1 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.18	J	0.11	0.42
Vanadium		13		0.40	0.59
Zinc		150		0.94	0.59

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.2290 g
Analysis Date:	10/19/2011 1340			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		24		0.35	1.7
Manganese		1400		1.4	4.2

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	1000			Initial Weight/Volume:	1.2290 g
Analysis Date:	10/19/2011 1356			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Arsenic		32000		15	42

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.7442 g
Analysis Date:	10/18/2011 1532			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.57		0.044	0.14

Client Sample ID: **76-7**

Lab Sample ID: 580-29110-14 Date Sampled: 09/29/2011 1650
Client Matrix: Solid % Moisture: 13.0 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.1000 g
Analysis Date:	10/18/2011 2224			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		82	B	3.2	57
Iron		2300	B	0.64	10
Magnesium		48	J	3.3	57

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.1000 g
Analysis Date:	10/19/2011 2224			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		42	J	17	170

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	054SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1000 g
Analysis Date:	10/18/2011 1847			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		560		3.1	31
Barium		2.9		0.031	0.21
Beryllium		ND		0.023	0.21
Cadmium		0.051	J	0.0084	0.21
Chromium		0.90		0.12	0.21
Cobalt		0.56		0.020	0.21
Copper		1.1		0.10	0.21
Lead		1.0		0.014	0.21
Nickel		0.68		0.21	0.21
Selenium		ND		0.21	0.73
Silver		0.13	J	0.013	0.21
Sodium		89	J	41	100
Thallium		ND		0.14	0.52
Vanadium		7.0		0.49	0.73
Zinc		4.8		1.2	0.73

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.1000 g
Analysis Date:	10/19/2011 1218			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **76-7**

Lab Sample ID: 580-29110-14 Date Sampled: 09/29/2011 1650
Client Matrix: Solid % Moisture: 13.0 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.096	J	0.044	0.21
Arsenic		1.5		0.19	0.52
Manganese		10		0.18	0.52

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6320 g
Analysis Date:	10/18/2011 1538			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		ND		0.057	0.18

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **76-8**

Lab Sample ID: 580-29110-15 Date Sampled: 09/29/2011 1637
Client Matrix: Solid % Moisture: 34.0 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0141 g
Analysis Date:	10/18/2011 2236			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		900	B	4.6	82
Magnesium		740		4.8	82

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0141 g
Analysis Date:	10/19/2011 2230			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		180	J	24	250

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.0141 g
Analysis Date:	10/18/2011 2242			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		15000	B	91	1500

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	055SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0141 g
Analysis Date:	10/18/2011 1852			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		6900		4.5	45
Barium		16		0.045	0.30
Beryllium		0.17	J	0.033	0.30
Cadmium		0.25	J	0.012	0.30
Chromium		4.5		0.17	0.30
Cobalt		2.8		0.028	0.30
Copper		16		0.15	0.30
Lead		24		0.019	0.30
Nickel		3.5		0.30	0.30
Selenium		0.65	J	0.30	1.0
Silver		0.46		0.018	0.30
Sodium		84	J	59	150

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **76-8**

Lab Sample ID: 580-29110-15 Date Sampled: 09/29/2011 1637
Client Matrix: Solid % Moisture: 34.0 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		ND		0.19	0.75
Vanadium		23		0.71	1.0
Zinc		29		1.7	1.0

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	10			Initial Weight/Volume:	1.0141 g
Analysis Date:	10/19/2011 1222			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		0.77		0.063	0.30
Arsenic		48		0.27	0.75
Manganese		95		0.25	0.75

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6225 g
Analysis Date:	10/18/2011 1651			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.11		0.0077	0.024

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **CONGRESS S1 0-6**

Lab Sample ID: 580-29110-16 Date Sampled: 09/29/2011 1340
Client Matrix: Solid % Moisture: 15.0 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0780 g
Analysis Date:	10/18/2011 2248			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		4700	B	3.4	60
Magnesium		2800		3.5	60

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0780 g
Analysis Date:	10/19/2011 2236			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		860		17	180

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.0780 g
Analysis Date:	10/18/2011 2254			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		57000	B	67	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	056SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0780 g
Analysis Date:	10/18/2011 1857			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		11000		3.3	33
Barium		31		0.033	0.22
Beryllium		0.50		0.024	0.22
Cadmium		12		0.0087	0.22
Chromium		5.6		0.12	0.22
Cobalt		24		0.021	0.22
Copper		150		0.11	0.22
Lead		1100		0.014	0.22
Nickel		21		0.22	0.22
Selenium		1.3		0.22	0.76
Silver		6.9		0.013	0.22
Sodium		50	J	43	110

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **CONGRESS S1 0-6**

Lab Sample ID: 580-29110-16 Date Sampled: 09/29/2011 1340
Client Matrix: Solid % Moisture: 15.0 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.35	J	0.14	0.55
Vanadium		32		0.52	0.76
Zinc		1500		1.2	0.76

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0780 g
Analysis Date:	10/19/2011 1343			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		30		0.46	2.2
Arsenic		2200		2.0	5.5
Manganese		5400		1.9	5.5

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6249 g
Analysis Date:	10/18/2011 1542			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.32		0.059	0.19

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **CONGRESS S1 6-12**

Lab Sample ID: 580-29110-17 Date Sampled: 09/29/2011 1350
Client Matrix: Solid % Moisture: 15.0 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0430 g
Analysis Date:	10/18/2011 2300			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		4700	B	3.5	62
Magnesium		3000		3.6	62

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0430 g
Analysis Date:	10/19/2011 2242			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		950		18	190

Analysis Method:	6010B	Analysis Batch:	580-98052	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100			Initial Weight/Volume:	1.0430 g
Analysis Date:	10/18/2011 2306			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		57000	B	69	1100

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	057SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0430 g
Analysis Date:	10/18/2011 1901			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		10000		3.4	34
Barium		29		0.034	0.23
Beryllium		0.45		0.025	0.23
Cadmium		9.1		0.0090	0.23
Chromium		5.8		0.13	0.23
Cobalt		23		0.021	0.23
Copper		150		0.11	0.23
Nickel		17		0.23	0.23
Selenium		1.4		0.23	0.79
Silver		16		0.014	0.23
Sodium		56	J	44	110
Thallium		0.35	J	0.15	0.56

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **CONGRESS S1 6-12**

Lab Sample ID: 580-29110-17 Date Sampled: 09/29/2011 1350
Client Matrix: Solid % Moisture: 15.0 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Vanadium		31		0.53	0.79
Zinc		1500		1.3	0.79

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0430 g
Analysis Date:	10/19/2011 1346			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		34		0.47	2.3
Arsenic		2900		2.0	5.6
Lead		3400		0.15	2.3
Manganese		4500		1.9	5.6

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6209 g
Analysis Date:	10/18/2011 1544			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.73		0.060	0.19

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PORTLAND 2 S1 0-6**

Lab Sample ID: 580-29110-18 Date Sampled: 09/29/2011 1405
Client Matrix: Solid % Moisture: 4.0 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 0120			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		1900		3.1	54
Magnesium		4700		3.1	54

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 2329			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1300		16	160

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100			Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 0125			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		56000	B	60	980

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	067SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0588 g
Analysis Date:	10/18/2011 1950			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9100		3.0	30
Barium		50		0.030	0.20
Beryllium		0.20		0.022	0.20
Cadmium		9.6		0.0079	0.20
Chromium		9.5		0.11	0.20
Cobalt		36		0.019	0.20
Copper		230		0.096	0.20
Lead		430	B	0.013	0.20
Nickel		9.7		0.20	0.20
Selenium		0.52	J	0.20	0.69
Silver		3.9		0.012	0.20
Sodium		350		39	98

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PORTLAND 2 S1 0-6**

Lab Sample ID: 580-29110-18 Date Sampled: 09/29/2011 1405
Client Matrix: Solid % Moisture: 4.0 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.38	J	0.13	0.49
Vanadium		59		0.47	0.69
Zinc		830		1.1	0.69

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	50			Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 1418			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		29		0.21	0.98
Arsenic		1200		0.89	2.5
Manganese		9600		0.84	2.5

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	10			Initial Weight/Volume:	0.6381 g
Analysis Date:	10/18/2011 1602			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		1.2		0.051	0.16

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PORTLAND 2 S1 6-12**

Lab Sample ID: 580-29110-19 Date Sampled: 09/29/2011 1415
Client Matrix: Solid % Moisture: 1.9 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.1540 g
Analysis Date:	10/19/2011 0235			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		1900		2.7	49
Magnesium		5100		2.8	49

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.1540 g
Analysis Date:	10/20/2011 0008			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1000		14	150

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100			Initial Weight/Volume:	1.1540 g
Analysis Date:	10/19/2011 0241			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		63000	B	54	880

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	072SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.1540 g
Analysis Date:	10/18/2011 2014			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9100		2.7	27
Barium		46		0.027	0.18
Beryllium		0.25		0.019	0.18
Cadmium		16		0.0071	0.18
Chromium		9.4		0.10	0.18
Cobalt		28		0.017	0.18
Copper		270		0.087	0.18
Lead		370	B	0.011	0.18
Nickel		10		0.18	0.18
Selenium		0.71		0.18	0.62
Silver		3.8		0.011	0.18
Sodium		270		35	88

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PORTLAND 2 S1 6-12**

Lab Sample ID: 580-29110-19 Date Sampled: 09/29/2011 1415
Client Matrix: Solid % Moisture: 1.9 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.32	J	0.11	0.44
Vanadium		58		0.42	0.62
Zinc		940		0.99	0.62

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.1540 g
Analysis Date:	10/19/2011 1452			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		32		0.37	1.8
Arsenic		900		1.6	4.4
Manganese		11000		1.5	4.4

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6867 g
Analysis Date:	10/18/2011 1610			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.098		0.0047	0.015

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PORTLAND 2 S2 0-6**

Lab Sample ID: 580-29110-20 Date Sampled: 09/29/2011 1445
Client Matrix: Solid % Moisture: 1.4 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0544 g
Analysis Date:	10/19/2011 0247			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		3100		3.0	53
Magnesium		5100		3.1	53

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0544 g
Analysis Date:	10/20/2011 0014			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		820		15	160

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100			Initial Weight/Volume:	1.0544 g
Analysis Date:	10/19/2011 0252			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		21000	B	59	960

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	073SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0544 g
Analysis Date:	10/18/2011 2019			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		14000		2.9	29
Barium		43		0.029	0.19
Beryllium		0.15	J	0.021	0.19
Cadmium		2.4		0.0077	0.19
Chromium		5.4		0.11	0.19
Cobalt		13		0.018	0.19
Copper		170		0.094	0.19
Lead		66	B	0.012	0.19
Nickel		7.1		0.20	0.19
Selenium		0.49	J	0.19	0.67
Silver		0.66		0.012	0.19
Sodium		420		38	96

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PORTLAND 2 S2 0-6**

Lab Sample ID: 580-29110-20 Date Sampled: 09/29/2011 1445
Client Matrix: Solid % Moisture: 1.4 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.12	J	0.12	0.48
Vanadium		38		0.45	0.67
Zinc		670		1.1	0.67

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0544 g
Analysis Date:	10/19/2011 1458			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		5.0		0.40	1.9
Arsenic		590		1.7	4.8
Manganese		1100		1.6	4.8

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.8623 g
Analysis Date:	10/18/2011 1653			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.14		0.0037	0.012

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **CONGRESS S2 0-6**

Lab Sample ID: 580-29110-21 Date Sampled: 09/29/2011 1450
Client Matrix: Solid % Moisture: 1.9 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0595 g
Analysis Date:	10/19/2011 0315			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		1400		3.0	53
Magnesium		3400		3.1	53

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0595 g
Analysis Date:	10/20/2011 0020			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1100		15	160

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100			Initial Weight/Volume:	1.0595 g
Analysis Date:	10/19/2011 0321			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		41000	B	59	960

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	074SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0595 g
Analysis Date:	10/18/2011 2023			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		8000		2.9	29
Barium		35		0.029	0.19
Beryllium		0.36		0.021	0.19
Cadmium		4.3		0.0077	0.19
Chromium		6.9		0.11	0.19
Cobalt		23		0.018	0.19
Copper		93		0.094	0.19
Lead		1000	B	0.013	0.19
Nickel		14		0.20	0.19
Selenium		1.1		0.19	0.67
Silver		10		0.012	0.19
Sodium		54	J	38	96

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **CONGRESS S2 0-6**

Lab Sample ID: 580-29110-21 Date Sampled: 09/29/2011 1450
Client Matrix: Solid % Moisture: 1.9 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.29	J	0.13	0.48
Vanadium		29		0.45	0.67
Zinc		690		1.1	0.67

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0595 g
Analysis Date:	10/19/2011 1501			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		28		0.40	1.9
Arsenic		1400		1.7	4.8
Manganese		3600		1.6	4.8

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6385 g
Analysis Date:	10/18/2011 1614			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.028		0.0050	0.016

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **CONGRESS S2 6-12**

Lab Sample ID: 580-29110-22 Date Sampled: 09/29/2011 1500
Client Matrix: Solid % Moisture: 2.6 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0392 g
Analysis Date:	10/19/2011 0327			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		1800		3.1	54
Magnesium		3800		3.2	54

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0392 g
Analysis Date:	10/20/2011 0026			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		1300		16	160

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100			Initial Weight/Volume:	1.0392 g
Analysis Date:	10/19/2011 0333			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		42000	B	60	990

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	075SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0392 g
Analysis Date:	10/18/2011 2028			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		9100		3.0	30
Barium		38		0.030	0.20
Beryllium		0.37		0.022	0.20
Cadmium		4.7		0.0079	0.20
Chromium		7.2		0.11	0.20
Cobalt		24		0.019	0.20
Copper		120		0.097	0.20
Lead		1200	B	0.013	0.20
Nickel		15		0.20	0.20
Selenium		1.2		0.20	0.69
Silver		6.2		0.012	0.20
Sodium		76	J	39	99

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **CONGRESS S2 6-12**

Lab Sample ID: 580-29110-22 Date Sampled: 09/29/2011 1500
Client Matrix: Solid % Moisture: 2.6 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.30	J	0.13	0.49
Vanadium		32		0.47	0.69
Zinc		820		1.1	0.69

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0392 g
Analysis Date:	10/19/2011 1504			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		48		0.41	2.0
Arsenic		1400		1.8	4.9
Manganese		3600		1.7	4.9

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6146 g
Analysis Date:	10/18/2011 1616			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.028		0.0053	0.017

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PORTLAND 2 S2 6-12**

Lab Sample ID: 580-29110-23 Date Sampled: 09/29/2011 1500
Client Matrix: Solid % Moisture: 2.2 Date Received: 10/05/2011 1635

6010B Metals (ICP)

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0			Initial Weight/Volume:	1.0896 g
Analysis Date:	10/19/2011 0339			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Calcium		3700		2.9	52
Magnesium		5300		3.0	52

Analysis Method:	6010B	Analysis Batch:	580-98286	Instrument ID:	SEA027
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0			Initial Weight/Volume:	1.0896 g
Analysis Date:	10/20/2011 0031			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Potassium		840		15	150

Analysis Method:	6010B	Analysis Batch:	580-98054	Instrument ID:	TAC047
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100			Initial Weight/Volume:	1.0896 g
Analysis Date:	10/19/2011 0345			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Iron		21000	B	57	940

6020 Metals (ICP/MS)

Analysis Method:	6020	Analysis Batch:	580-98033	Instrument ID:	SEA044
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	078SMPL.D#.raw
Dilution:	10			Initial Weight/Volume:	1.0896 g
Analysis Date:	10/18/2011 2043			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Aluminum		16000		2.8	28
Barium		40		0.028	0.19
Beryllium		0.17	J	0.021	0.19
Cadmium		2.4		0.0075	0.19
Chromium		6.1		0.11	0.19
Cobalt		15		0.018	0.19
Copper		180		0.092	0.19
Lead		68	B	0.012	0.19
Nickel		7.5		0.19	0.19
Selenium		0.56	J	0.19	0.66
Silver		0.69		0.011	0.19
Sodium		480		37	94

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Client Sample ID: **PORTLAND 2 S2 6-12**

Lab Sample ID: 580-29110-23 Date Sampled: 09/29/2011 1500
Client Matrix: Solid % Moisture: 2.2 Date Received: 10/05/2011 1635

6020 Metals (ICP/MS)

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Thallium		0.12	J	0.12	0.47
Vanadium		42		0.44	0.66
Zinc		650		1.1	0.66

Analysis Method:	6020	Analysis Batch:	580-98109	Instrument ID:	SEA026
Prep Method:	3050B	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	100			Initial Weight/Volume:	1.0896 g
Analysis Date:	10/19/2011 1507			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Antimony		3.6		0.39	1.9
Arsenic		520		1.7	4.7
Manganese		810		1.6	4.7

7471A Mercury (CVAA)

Analysis Method:	7471A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Prep Method:	7471A	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	1.0			Initial Weight/Volume:	0.6091 g
Analysis Date:	10/18/2011 1655			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				

Analyte	DryWt Corrected: Y	Result (mg/Kg)	Qualifier	MDL	RL
Mercury		0.15		0.0053	0.017

General Chemistry

Client Sample ID: **PUSHER S-1 0-6**

Lab Sample ID: 580-29110-1 Date Sampled: 09/27/2011 1130
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.28		SU	1.0	9045C
Analysis Batch: 580-97871	Analysis Date: 10/17/2011 1615				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	91		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	8.5		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **PUSHER S-1 6-12**

Lab Sample ID: 580-29110-2 Date Sampled: 09/27/2011 1140
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	4.63		SU	1.0	9045C
Analysis Batch: 580-97871	Analysis Date: 10/17/2011 1615				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	79		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	21		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **PUSHER S-2 0-6**

Lab Sample ID: 580-29110-3 Date Sampled: 09/27/2011 1155
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	3.53		SU	1.0	9045C
Analysis Batch: 580-97871	Analysis Date: 10/17/2011 1615				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	96		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	3.8		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **PUSHER S-2 6-12**

Lab Sample ID: 580-29110-4 Date Sampled: 09/27/2011 1205
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	3.76		SU	1.0	9045C
Analysis Batch: 580-97871	Analysis Date: 10/17/2011 1615				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	82		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	18		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **PUSHER S-3 0-6**

Lab Sample ID: 580-29110-5 Date Sampled: 09/27/2011 1220
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	3.66		SU	1.0	9045C
Analysis Batch: 580-97871	Analysis Date: 10/17/2011 1615				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	2.6		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **PUSHER S-3 6-12**

Lab Sample ID: 580-29110-6 Date Sampled: 09/27/2011 1225
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	4.04		SU	1.0	9045C
Analysis Batch: 580-97871	Analysis Date: 10/17/2011 1615				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	78		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	22		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **IBEX S1 0-6**

Lab Sample ID: 580-29110-7 Date Sampled: 09/28/2011 1430
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.48		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	3.3		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **IBEX S2 0-6**

Lab Sample ID: 580-29110-8 Date Sampled: 09/28/2011 1440
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.64		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	98		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	1.8		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **O+B UPPER S1 0-6**

Lab Sample ID: 580-29110-9 Date Sampled: 09/28/2011 1500

Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	3.09		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	95		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	4.6		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **O+B UPPER S2 0-6**

Lab Sample ID: 580-29110-10 Date Sampled: 09/28/2011 1525
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.71		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	93		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	6.9		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **O+B UPPER S3 0-6**

Lab Sample ID: 580-29110-11 Date Sampled: 09/28/2011 1540
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	2.89		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N
Percent Moisture	3.1		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97058	Analysis Date: 10/06/2011 1214						DryWt Corrected: N

General Chemistry

Client Sample ID: **O+B LOWER S1 0-6**

Lab Sample ID: 580-29110-12 Date Sampled: 09/28/2011 1620
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	1.74		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	2.6		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **O+B LOWER S2 0-6**

Lab Sample ID: 580-29110-13 Date Sampled: 09/28/2011 1645
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	4.14		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	3.1		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **76-7**

Lab Sample ID: 580-29110-14 Date Sampled: 09/29/2011 1650

Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	4.96		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	87		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	13		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **76-8**

Lab Sample ID: 580-29110-15 Date Sampled: 09/29/2011 1637
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.28		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	66		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	34		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **CONGRESS S1 0-6**

Lab Sample ID: 580-29110-16 Date Sampled: 09/29/2011 1340
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.39		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **CONGRESS S1 6-12**

Lab Sample ID: 580-29110-17 Date Sampled: 09/29/2011 1350

Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.66		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	85		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	15		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **PORTLAND 2 S1 0-6**

Lab Sample ID: 580-29110-18 Date Sampled: 09/29/2011 1405

Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	3.19		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	96		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	4.0		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **PORTLAND 2 S1 6-12**

Lab Sample ID: 580-29110-19 Date Sampled: 09/29/2011 1415

Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	4.79		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	98		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	1.9		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **PORTLAND 2 S2 0-6**

Lab Sample ID: 580-29110-20 Date Sampled: 09/29/2011 1445
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	4.66		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	99		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	1.4		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **CONGRESS S2 0-6**

Lab Sample ID: 580-29110-21 Date Sampled: 09/29/2011 1450
Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.76		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	98		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	1.9		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **CONGRESS S2 6-12**

Lab Sample ID: 580-29110-22 Date Sampled: 09/29/2011 1500

Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	5.69		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	97		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	2.6		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

General Chemistry

Client Sample ID: **PORTLAND 2 S2 6-12**

Lab Sample ID: 580-29110-23 Date Sampled: 09/29/2011 1500

Client Matrix: Solid Date Received: 10/05/2011 1635

Analyte	Result	Qual	Units	Dil	Method
pH	6.13		SU	1.0	9045C
Analysis Batch: 580-97873	Analysis Date: 10/17/2011 1630				DryWt Corrected: N

Analyte	Result	Qual	Units	RL	RL	Dil	Method
Percent Solids	98		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N
Percent Moisture	2.2		%	0.10	0.10	1.0	Moisture
Analysis Batch: 580-97065	Analysis Date: 10/06/2011 1312						DryWt Corrected: N

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Method Blank - Batch: 580-97966 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-97966/21-A	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1731	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Calcium	4.69	J	3.1	55
Iron	2.79	J	0.61	10
Magnesium	ND		3.2	55

Method Blank - Batch: 580-97966 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-97966/21-A	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 1955	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Potassium	ND		16	170

Client: Hart Crowser, Inc. Job Number: 580-29110-1

LCS-Certified Reference Material - Batch: 580-97966 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5093 g
Analysis Date:	10/18/2011 1748	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1350				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	6700	6630	99	75.4 - 124.0	
Iron	13100	9470	72	41.6 - 159.1	
Magnesium	2980	2300	77	70.0 - 130.0	

LCS-Certified Reference Material - Batch: 580-97966 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.5093 g
Analysis Date:	10/19/2011 2013	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1350				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	2770	2090	75	65.0 - 135.0	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97966/22-A	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1737	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97966/23-A	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1742	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1350				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Calcium	101	98	80 - 120	2	20		
Iron	102	99	80 - 120	3	20		
Magnesium	99	99	80 - 120	0	20		

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97966/22-A	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 2001	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97966/23-A	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 2007	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1350				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Potassium	113	99	80 - 120	13	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97966/22-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97966/23-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/18/2011 1737			Analysis Date:	10/18/2011 1742
Prep Date:	10/18/2011 1348			Prep Date:	10/18/2011 1350
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Calcium	1000	1000	1010	985
Iron	1100	1100	1120	1080
Magnesium	1000	1000	992	995

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97966/22-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97966/23-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/19/2011 2001			Analysis Date:	10/19/2011 2007
Prep Date:	10/18/2011 1348			Prep Date:	10/18/2011 1350
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Potassium	1000	1000	1130	990

Post Digestion Spike - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1906	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	450	969	1360	94		
Magnesium	3100	969	3860	78	75 - 125	

Post Digestion Spike - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1911	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	720	J	96900	2020	1		J
Iron	33000		107000	33800	0.6	75 - 125	W
Magnesium	3700	J	96900	4710	1	75 - 125	J W

Post Digestion Spike - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/19/2011 2046	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	1100	969	1950	86		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0301 g
Analysis Date:	10/18/2011 1843			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1076 g
Analysis Date:	10/18/2011 1854			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium	102	99	80 - 120	8	20		
Magnesium	98	95	80 - 120	3	20		

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0301 g
Analysis Date:	10/18/2011 1848			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.1076 g
Analysis Date:	10/18/2011 1900			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium	81	115	80 - 120	16	20	J	J
Iron	50	346	80 - 120	9	20	4	4
Magnesium	86	110	80 - 120	4	20	J	J

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0301 g
Analysis Date:	10/19/2011 2036			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-1	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1076 g
Analysis Date:	10/19/2011 2041			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Potassium	100	95	80 - 120	6	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Units:	mg/Kg	MSD Lab Sample ID:	580-29110-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/18/2011 1843			Analysis Date:	10/18/2011 1854
Prep Date:	10/18/2011 1348			Prep Date:	10/18/2011 1348
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Calcium	450	1060	987	1530	1420
Magnesium	3100	1060	987	4150	4040

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Units:	mg/Kg	MSD Lab Sample ID:	580-29110-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	100			Dilution:	100
Analysis Date:	10/18/2011 1848			Analysis Date:	10/18/2011 1900
Prep Date:	10/18/2011 1348			Prep Date:	10/18/2011 1348
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Calcium	720	J	1060	987	1580	J	1850	J
Iron	33000		1170	1090	33800	4	37000	4
Magnesium	3700	J	1060	987	4610	J	4780	J

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Units:	mg/Kg	MSD Lab Sample ID:	580-29110-1
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/19/2011 2036			Analysis Date:	10/19/2011 2041
Prep Date:	10/18/2011 1348			Prep Date:	10/18/2011 1348
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual
Potassium	1100	1060	987	2180	2060

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Serial Dilution - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1754	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Calcium		502			
Iron		32600			
Magnesium		3320			

Serial Dilution - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	500	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1759	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Calcium	720	J	ND	NC		
Iron	33000		32000	3.7	10	
Magnesium	3700	J	3590	NC	10	J

Duplicate - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0254 g
Analysis Date:	10/18/2011 1817	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Calcium	450	423	5	20	
Magnesium	3100	2950	5	20	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Duplicate - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98052	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-97966T4.asc
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0254 g
Analysis Date:	10/18/2011 1823	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Calcium	720	J	784	9	20	J
Iron	33000		34200	3	20	
Magnesium	3700	J	3470	6	20	J

Serial Dilution - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/19/2011 2019	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Potassium	1100	1120	0.35		

Duplicate - Batch: 580-97966

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0254 g
Analysis Date:	10/19/2011 2030	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Potassium	1100	1010	10	20	

Method Blank - Batch: 580-97974 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-97974/20-A	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 0044	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Calcium	ND		3.1	55
Iron	0.770	J	0.61	10
Magnesium	ND		3.2	55

Method Blank - Batch: 580-97974 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	MB 580-97974/20-A	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 2259	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Potassium	ND		16	170

Client: Hart Crowser, Inc. Job Number: 580-29110-1

LCS-Certified Reference Material - Batch: 580-97974 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.4964 g
Analysis Date:	10/19/2011 0102	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	6700	6650	99	75.4 - 124.0	
Iron	13100	11200	85	41.6 - 159.1	
Magnesium	2980	2370	79	70.0 - 130.0	

LCS-Certified Reference Material - Batch: 580-97974 **Method: 6010B**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.4964 g
Analysis Date:	10/19/2011 2317	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	2770	2250	81	65.0 - 135.0	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97974/21-A	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 0051	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97974/22-A	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 0056	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Calcium	102	102	80 - 120	0	20		
Iron	107	107	80 - 120	0	20		
Magnesium	97	94	80 - 120	3	20		

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97974/21-A	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 2305	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97974/22-A	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 2311	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Potassium	103	107	80 - 120	4	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97974/21-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97974/22-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/19/2011 0051			Analysis Date:	10/19/2011 0056
Prep Date:	10/18/2011 1431			Prep Date:	10/18/2011 1431
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Calcium	1000	1000	1020	1020
Iron	1100	1100	1170	1180
Magnesium	1000	1000	971	942

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97974/21-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97974/22-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/19/2011 2305			Analysis Date:	10/19/2011 2311
Prep Date:	10/18/2011 1431			Prep Date:	10/18/2011 1431
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Potassium	1000	1000	1030	1070

Post Digestion Spike - Batch: 580-97974

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 0223	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Calcium	1900	984	2770	89		
Magnesium	4700	984	5220	53	75 - 125	W

Post Digestion Spike - Batch: 580-97974

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 0229	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Calcium	1500	J	98400	2800	1		J
Iron	56000		108000	57300	1	75 - 125	W
Magnesium	5000	J	98400	5710	0.7	75 - 125	W

Post Digestion Spike - Batch: 580-97974

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 2351	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Potassium	1300	984	2070	79		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0792 g
Analysis Date:	10/19/2011 0200			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0447 g
Analysis Date:	10/19/2011 0211			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium	124	117	80 - 120	1	20	F	
Magnesium	78	58	80 - 120	3	20	4	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0792 g
Analysis Date:	10/19/2011 0205			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0447 g
Analysis Date:	10/19/2011 0217			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Calcium	203	173	80 - 120	7	20	J F	J F
Iron	718	1164	80 - 120	8	20	4	4
Magnesium	123	102	80 - 120	3	20	4	4

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0792 g
Analysis Date:	10/19/2011 2341			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-18	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0447 g
Analysis Date:	10/19/2011 2346			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Potassium	58	61	80 - 120	3	20	F	F

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Units:	mg/Kg	MSD Lab Sample ID:	580-29110-18
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/19/2011 0200			Analysis Date:	10/19/2011 0211
Prep Date:	10/18/2011 1431			Prep Date:	10/18/2011 1431
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Calcium	1900	966	998	3100	F	3070	
Magnesium	4700	966	998	5450	4	5270	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Units:	mg/Kg	MSD Lab Sample ID:	580-29110-18
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	100			Dilution:	100
Analysis Date:	10/19/2011 0205			Analysis Date:	10/19/2011 0217
Prep Date:	10/18/2011 1431			Prep Date:	10/18/2011 1431
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Calcium	1500	J	966	998	3440	J F	3210	J F
Iron	56000		1060	1100	63700	4	68800	4
Magnesium	5000	J	966	998	6190	4	6020	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Units:	mg/Kg	MSD Lab Sample ID:	580-29110-18
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/19/2011 2341			Analysis Date:	10/19/2011 2346
Prep Date:	10/18/2011 1431			Prep Date:	10/18/2011 1431
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Potassium	1300	966	998	1850	F	1910	F

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Serial Dilution - Batch: 580-97974

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	500	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 0114	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Calcium	1500	J	3350	NC		J
Iron	56000		57500	2.5	10	
Magnesium	5000	J	5220	NC	10	J

Duplicate - Batch: 580-97974

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0200 g
Analysis Date:	10/19/2011 0131	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Calcium	1900	1780	6	20	
Magnesium	4700	4630	1	20	

Duplicate - Batch: 580-97974

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98054	Instrument ID:	TAC047
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-97974T4.asc
Dilution:	100	Leach Batch:	N/A	Initial Weight/Volume:	1.0200 g
Analysis Date:	10/19/2011 0137	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Calcium	1500	J	1650	11	20	J
Iron	56000		63200	12	20	
Magnesium	5000	J	5140	3	20	J

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Serial Dilution - Batch: 580-97974

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	5.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 2323	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Potassium	1300	1730	34		

Duplicate - Batch: 580-97974

Method: 6010B
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98286	Instrument ID:	SEA027
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	580-29110Kall.prn
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	1.0200 g
Analysis Date:	10/19/2011 2335	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Potassium	1300	1350	4	20	

Method Blank - Batch: 580-97966 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	MB 580-97966/21-A	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	026SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1632	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		3.0	30
Barium	ND		0.030	0.20
Beryllium	ND		0.022	0.20
Cadmium	ND		0.0080	0.20
Chromium	ND		0.11	0.20
Cobalt	ND		0.019	0.20
Copper	ND		0.098	0.20
Lead	ND		0.013	0.20
Nickel	ND		0.20	0.20
Selenium	ND		0.20	0.70
Silver	ND		0.012	0.20
Sodium	ND		39	100
Thallium	ND		0.13	0.50
Vanadium	ND		0.47	0.70
Zinc	ND		1.1	0.70

Method Blank - Batch: 580-97966 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	MB 580-97966/21-A	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 1141	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Antimony	ND		0.042	0.20
Arsenic	ND		0.18	0.50
Manganese	ND		0.17	0.50

Client: Hart Crowser, Inc. Job Number: 580-29110-1

LCS-Certified Reference Material - Batch: 580-97966 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	029SMPL.D#.raw
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.5093 g
Analysis Date:	10/18/2011 1646	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1350				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9780	7470	76	46.0 - 153.8	
Barium	325	332	102	74.7 - 125.5	
Beryllium	92.1	90.7	98	75.3 - 124.7	
Cadmium	110	113	103	73.2 - 126.8	
Chromium	93.4	94.7	101	69.9 - 129.8	
Cobalt	133	148	111	74.5 - 126.1	
Copper	84.7	73.3	86	73.2 - 126.8	
Lead	152	168	111	75.3 - 125.1	
Nickel	109	112	102	73.8 - 126.7	
Selenium	207	215	104	67.1 - 132.7	
Silver	51.9	53.2	103	65.6 - 134.4	
Sodium	724	728	101	52.0 - 148.0	
Thallium	171	182	106	68.8 - 131.2	
Vanadium	110	113	103	64.5 - 135.3	
Zinc	299	303	101	72.2 - 127.8	

LCS-Certified Reference Material - Batch: 580-97966 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.5093 g
Analysis Date:	10/19/2011 1209	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1350				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	121	208	171	21.0 - 251.6	
Arsenic	109	110	101	71.1 - 128.9	
Manganese	443	501	113	75.8 - 124.5	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97966

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97966/22-A	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	027SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1636	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97966/23-A	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	028SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1641	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1350				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	97	97	80 - 120	1	20		
Barium	102	100	80 - 120	1	20		
Beryllium	101	101	80 - 120	0	20		
Cadmium	100	106	80 - 120	6	20		
Chromium	103	102	80 - 120	1	20		
Cobalt	105	104	80 - 120	1	20		
Copper	104	102	80 - 120	2	20		
Lead	105	105	80 - 120	0	20		
Nickel	101	99	80 - 120	2	20		
Selenium	99	98	80 - 120	1	20		
Silver	105	104	80 - 120	1	20		
Sodium	100	99	80 - 120	1	20		
Thallium	101	100	80 - 120	1	20		
Vanadium	101	100	80 - 120	1	20		
Zinc	105	102	80 - 120	2	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97966

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97966/22-A	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 1203	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97966/23-A	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 1206	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1350				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	100	101	80 - 120	1	20		
Arsenic	107	107	80 - 120	0	20		
Manganese	110	110	80 - 120	0	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97966

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97966/22-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97966/23-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	10/18/2011 1636			Analysis Date:	10/18/2011 1641
Prep Date:	10/18/2011 1348			Prep Date:	10/18/2011 1350
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Aluminum	200	200	195	194
Barium	200	200	203	201
Beryllium	5.00	5.00	5.07	5.05
Cadmium	5.00	5.00	5.00	5.32
Chromium	20.0	20.0	20.5	20.3
Cobalt	50.0	50.0	52.4	51.8
Copper	25.0	25.0	25.9	25.5
Lead	50.0	50.0	52.5	52.3
Nickel	50.0	50.0	50.4	49.6
Selenium	200	200	198	196
Silver	30.0	30.0	31.5	31.2
Sodium	1000	1000	1000	994
Thallium	200	200	202	200
Vanadium	50.0	50.0	50.4	49.8
Zinc	50.0	50.0	52.4	51.2

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97966

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97966/22-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97966/23-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	10/19/2011 1203			Analysis Date:	10/19/2011 1206
Prep Date:	10/18/2011 1348			Prep Date:	10/18/2011 1350
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Antimony	150	150	150	151
Arsenic	200	200	214	215
Manganese	50.0	50.0	55.0	55.2

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Post Digestion Spike - Batch: 580-97966

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	037SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1725	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	14000		194	13900	NC	75 - 125	
Barium	25		194	238	110	75 - 125	
Beryllium	0.082	J	4.84	5.31	108	75 - 125	
Cadmium	0.11	J	4.84	5.31	107	75 - 125	
Chromium	6.2		19.4	27.0	107	75 - 125	
Cobalt	4.2		48.4	58.0	111	75 - 125	
Copper	360		24.2	387	NC	75 - 125	
Lead	59		48.4	111	108	75 - 125	
Nickel	2.7		48.4	56.6	111	75 - 125	
Selenium	1.5		194	213	109	75 - 125	
Silver	0.47		29.1	33.1	112	75 - 125	
Sodium	76	J	969	1130	108	75 - 125	
Thallium	0.37	J	194	239	123	75 - 125	
Vanadium	46		48.4	94.7	101	75 - 125	
Zinc	34		48.4	85.0	106	75 - 125	

Post Digestion Spike - Batch: 580-97966

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/19/2011 1200	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	1.3	145	149	102	75 - 125	
Arsenic	710	194	915	107	75 - 125	
Manganese	120	48.4	160	84	75 - 125	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	035SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0301 g
Analysis Date:	10/18/2011 1715			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-1	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	036SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1076 g
Analysis Date:	10/18/2011 1720			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aluminum	681	1648	80 - 120	11	20	4	4
Barium	99	108	80 - 120	1	20		
Beryllium	98	108	80 - 120	2	20		
Cadmium	102	106	80 - 120	3	20		
Chromium	98	109	80 - 120	2	20		
Cobalt	101	111	80 - 120	3	20		
Copper	188	371	80 - 120	10	20	4	4
Lead	107	132	80 - 120	7	20		F
Nickel	99	109	80 - 120	2	20		
Selenium	97	107	80 - 120	2	20		
Silver	99	108	80 - 120	1	20		
Sodium	101	114	80 - 120	4	20		
Thallium	108	120	80 - 120	3	20		
Vanadium	96	112	80 - 120	4	20		
Zinc	100	117	80 - 120	5	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0301 g
Analysis Date:	10/19/2011 1153			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-1	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1076 g
Analysis Date:	10/19/2011 1156			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	67	71	80 - 120	2	20	F	F
Arsenic	211	178	80 - 120	9	20	F	F
Manganese	107	146	80 - 120	8	20		F

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	10/18/2011 1715		
Prep Date:	10/18/2011 1348		
Leach Date:	N/A		

MSD Lab Sample ID:	580-29110-1
Client Matrix:	Solid
Dilution:	50
Analysis Date:	10/18/2011 1720
Prep Date:	10/18/2011 1348
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Aluminum	14000		212	197	15600	4	17400	4
Barium	25		212	197	236		238	
Beryllium	0.082	J	5.31	4.94	5.27		5.40	
Cadmium	0.11	J	5.31	4.94	5.50		5.36	
Chromium	6.2		21.2	19.7	27.1		27.6	
Cobalt	4.2		53.1	49.4	57.6		59.1	
Copper	360		26.5	24.7	409	4	451	4
Lead	59		53.1	49.4	115		124	F
Nickel	2.7		53.1	49.4	55.2		56.3	
Selenium	1.5		212	197	208		213	
Silver	0.47		31.8	29.6	32.1		32.5	
Sodium	76	J	1060	987	1150		1200	
Thallium	0.37	J	212	197	229		237	
Vanadium	46		53.1	49.4	96.6		101	
Zinc	34		53.1	49.4	86.7		91.5	

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97966

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-29110-1	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	10/19/2011 1153		
Prep Date:	10/18/2011 1348		
Leach Date:	N/A		

MSD Lab Sample ID:	580-29110-1
Client Matrix:	Solid
Dilution:	50
Analysis Date:	10/19/2011 1156
Prep Date:	10/18/2011 1348
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Antimony	1.3	159	148	109	F	106	F
Arsenic	710	212	197	1160	F	1060	F
Manganese	120	53.1	49.4	176		192	F

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Serial Dilution - Batch: 580-97966

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	0
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/18/2011 1701	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	14000		14600	3.3	10	
Barium	25		26.0	3.4	10	
Beryllium	0.082	J	0.117	NC	10	J
Cadmium	0.11	J	0.104	NC	10	J
Chromium	6.2		6.07	1.8	10	
Cobalt	4.2		4.22	1.2	10	
Copper	360		378	5.2	10	
Lead	59		60.3	2.9	10	
Nickel	2.7		2.85	NC	10	
Selenium	1.5		1.32	NC	10	J
Silver	0.47		0.446	NC	10	J
Sodium	76	J	ND	NC	10	
Thallium	0.37	J	1.01	NC	10	J
Vanadium	46		44.8	2.0	10	
Zinc	34		34.0	NC	10	

Duplicate - Batch: 580-97966

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	034SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0254 g
Analysis Date:	10/18/2011 1710	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	14000		16300	14	20	
Barium	25		28.9	14	20	
Beryllium	0.082	J	0.0875	7	20	J
Cadmium	0.11	J	0.116	6	20	J
Chromium	6.2		7.21	15	20	
Cobalt	4.2		4.87	16	20	
Copper	360		408	13	20	
Lead	59		66.0	12	20	
Nickel	2.7		3.14	14	20	
Selenium	1.5		1.70	12	20	
Silver	0.47		0.532	13	20	
Sodium	76	J	86.2	13	20	J
Thallium	0.37	J	0.404	7	20	J
Vanadium	46		52.6	14	20	

Duplicate - Batch: 580-97966 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	034SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0254 g
Analysis Date:	10/18/2011 1710	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Zinc	34	38.2	13	20	

Serial Dilution - Batch: 580-97966 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.1285 g
Analysis Date:	10/19/2011 1144	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Antimony	1.3	1.32	NC	10	
Arsenic	710	714	0.89	10	
Manganese	120	110	7.8	10	

Duplicate - Batch: 580-97966 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97966	Lab File ID:	97966-ICPMS.rep
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0254 g
Analysis Date:	10/19/2011 1150	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1348				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	1.3	1.43	11	20	
Arsenic	710	856	19	20	
Manganese	120	133	11	20	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Method Blank - Batch: 580-97974 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	MB 580-97974/20-A	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	060SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1916	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Aluminum	ND		3.0	30
Barium	ND		0.030	0.20
Beryllium	ND		0.022	0.20
Cadmium	ND		0.0080	0.20
Chromium	ND		0.11	0.20
Cobalt	ND		0.019	0.20
Copper	ND		0.098	0.20
Lead	0.0254	J	0.013	0.20
Nickel	ND		0.20	0.20
Selenium	ND		0.20	0.70
Silver	ND		0.012	0.20
Sodium	ND		39	100
Thallium	ND		0.13	0.50
Vanadium	ND		0.47	0.70
Zinc	ND		1.1	0.70

Method Blank - Batch: 580-97974 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	MB 580-97974/20-A	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 1411	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Antimony	ND		0.042	0.20
Arsenic	ND		0.18	0.50
Manganese	ND		0.17	0.50

Client: Hart Crowser, Inc. Job Number: 580-29110-1

LCS-Certified Reference Material - Batch: 580-97974 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	063SMPL.D#.raw
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.4964 g
Analysis Date:	10/18/2011 1931	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9780	7490	77	46.0 - 153.8	
Barium	325	345	106	74.7 - 125.5	
Beryllium	92.1	94.2	102	75.3 - 124.7	
Cadmium	110	116	106	73.2 - 126.8	
Chromium	93.4	97.3	104	69.9 - 129.8	
Cobalt	133	151	114	74.5 - 126.1	
Copper	84.7	74.1	88	73.2 - 126.8	
Lead	152	172	113	75.3 - 125.1	
Nickel	109	112	103	73.8 - 126.7	
Selenium	207	218	105	67.1 - 132.7	
Silver	51.9	54.3	105	65.6 - 134.4	
Sodium	724	738	102	52.0 - 148.0	
Thallium	171	200	117	68.8 - 131.2	
Vanadium	110	115	105	64.5 - 135.3	
Zinc	299	310	104	72.2 - 127.8	

LCS-Certified Reference Material - Batch: 580-97974 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	20	Leach Batch:	N/A	Initial Weight/Volume:	0.4964 g
Analysis Date:	10/19/2011 1439	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	121	214	177	21.0 - 251.6	
Arsenic	109	110	101	71.1 - 128.9	
Manganese	443	516	116	75.8 - 124.5	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97974

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97974/21-A	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	061SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1921	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97974/22-A	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	062SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/18/2011 1926	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Aluminum	97	94	80 - 120	4	20		
Barium	103	102	80 - 120	1	20		
Beryllium	102	104	80 - 120	2	20		
Cadmium	103	103	80 - 120	0	20		
Chromium	104	100	80 - 120	3	20		
Cobalt	107	104	80 - 120	3	20		
Copper	102	101	80 - 120	1	20		
Lead	105	104	80 - 120	1	20		
Nickel	99	98	80 - 120	1	20		
Selenium	98	98	80 - 120	1	20		
Silver	106	104	80 - 120	1	20		
Sodium	100	99	80 - 120	1	20		
Thallium	107	107	80 - 120	1	20		
Vanadium	102	98	80 - 120	4	20		
Zinc	103	102	80 - 120	1	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97974

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97974/21-A	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 1433	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97974/22-A	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0 g
Analysis Date:	10/19/2011 1436	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Antimony	102	100	80 - 120	1	20		
Arsenic	109	105	80 - 120	4	20		
Manganese	116	110	80 - 120	5	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97974

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97974/21-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97974/22-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	10/18/2011 1921			Analysis Date:	10/18/2011 1926
Prep Date:	10/18/2011 1431			Prep Date:	10/18/2011 1431
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Aluminum	200	200	195	188
Barium	200	200	205	203
Beryllium	5.00	5.00	5.12	5.20
Cadmium	5.00	5.00	5.13	5.13
Chromium	20.0	20.0	20.7	20.0
Cobalt	50.0	50.0	53.4	52.1
Copper	25.0	25.0	25.5	25.3
Lead	50.0	50.0	52.4	51.9
Nickel	50.0	50.0	49.6	49.1
Selenium	200	200	197	196
Silver	30.0	30.0	31.7	31.3
Sodium	1000	1000	995	988
Thallium	200	200	213	215
Vanadium	50.0	50.0	51.1	49.2
Zinc	50.0	50.0	51.4	50.8

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97974

Method: 6020
Preparation: 3050B

LCS Lab Sample ID:	LCS 580-97974/21-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97974/22-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	50			Dilution:	50
Analysis Date:	10/19/2011 1433			Analysis Date:	10/19/2011 1436
Prep Date:	10/18/2011 1431			Prep Date:	10/18/2011 1431
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Antimony	150	150	153	150
Arsenic	200	200	218	210
Manganese	50.0	50.0	57.9	54.9

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Post Digestion Spike - Batch: 580-97974

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	071SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/18/2011 2009	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Spike Amount	Result	% Rec.	Limit	Qual
Aluminum	9100		197	8520	NC	75 - 125	
Barium	50		197	249	101	75 - 125	
Beryllium	0.20		4.92	5.27	103	75 - 125	
Cadmium	9.6		4.92	12.8	65	75 - 125	W
Chromium	9.5		19.7	28.6	97	75 - 125	
Cobalt	36		49.2	82.8	95	75 - 125	
Copper	230		24.6	232	6	75 - 125	W
Lead	430		49.2	424	-17	75 - 125	W
Nickel	9.7		49.2	57.8	98	75 - 125	
Selenium	0.52	J	197	200	101	75 - 125	
Silver	3.9		29.5	34.5	103	75 - 125	
Sodium	350		984	1310	97	75 - 125	
Thallium	0.38	J	197	218	111	75 - 125	
Vanadium	59		49.2	101	85	75 - 125	
Zinc	830		49.2	776	NC	75 - 125	

Post Digestion Spike - Batch: 580-97974

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 1430	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	29	148	178	101	75 - 125	
Arsenic	1200	197	1340	66	75 - 125	W
Manganese	9600	49.2	9120	NC	75 - 125	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	069SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0792 g
Analysis Date:	10/18/2011 2000			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-18	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	070SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0447 g
Analysis Date:	10/18/2011 2004			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Aluminum	569	979	80 - 120	8	20	4	4
Barium	98	117	80 - 120	17	20		
Beryllium	95	115	80 - 120	21	20		F
Cadmium	87	123	80 - 120	13	20		F
Chromium	90	113	80 - 120	17	20		
Cobalt	95	126	80 - 120	18	20		F
Copper	89	248	80 - 120	15	20	4	4
Lead	23	125	80 - 120	11	20	4	4
Nickel	93	109	80 - 120	16	20		
Selenium	92	108	80 - 120	20	20		
Silver	94	117	80 - 120	22	20		F
Sodium	103	124	80 - 120	16	20		F
Thallium	105	121	80 - 120	17	20		F
Vanadium	82	122	80 - 120	19	20		F
Zinc	88	320	80 - 120	13	20	4	4

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0792 g
Analysis Date:	10/19/2011 1424			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-18	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0447 g
Analysis Date:	10/19/2011 1427			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	48	53	80 - 120	9	20	F	F
Arsenic	-17	83	80 - 120	16	20	4	4
Manganese	2680	1969	80 - 120	3	20	4	4

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	10/18/2011 2000		
Prep Date:	10/18/2011 1431		
Leach Date:	N/A		

MSD Lab Sample ID:	580-29110-18
Client Matrix:	Solid
Dilution:	50
Analysis Date:	10/18/2011 2004
Prep Date:	10/18/2011 1431
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Aluminum	9100		193	200	10200	4	11000	4
Barium	50		193	200	239		283	
Beryllium	0.20		4.83	4.99	4.79		5.92	F
Cadmium	9.6		4.83	4.99	13.8		15.7	F
Chromium	9.5		19.3	20.0	27.0		32.0	
Cobalt	36		48.3	49.9	81.9		98.6	F
Copper	230		24.1	24.9	252	4	293	4
Lead	430		48.3	49.9	443	4	494	4
Nickel	9.7		48.3	49.9	54.6		64.1	
Selenium	0.52	J	193	200	177		217	
Silver	3.9		29.0	29.9	31.1		38.9	F
Sodium	350		966	998	1350		1590	F
Thallium	0.38	J	193	200	204		241	F
Vanadium	59		48.3	49.9	98.6		120	F
Zinc	830		48.3	49.9	875	4	992	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97974

Method: 6020
Preparation: 3050B

MS Lab Sample ID:	580-29110-18	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	50		
Analysis Date:	10/19/2011 1424		
Prep Date:	10/18/2011 1431		
Leach Date:	N/A		

MSD Lab Sample ID:	580-29110-18
Client Matrix:	Solid
Dilution:	50
Analysis Date:	10/19/2011 1427
Prep Date:	10/18/2011 1431
Leach Date:	N/A

Analyte	Sample Result/Qual		MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Antimony	29		145	150	98.3	F	108	F
Arsenic	1200		193	200	1170	4	1370	4
Manganese	9600		48.3	49.9	10900	4	10600	4

Serial Dilution - Batch: 580-97974

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	066SMPL.D#.raw
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/18/2011 1945	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	%Diff	Limit	Qual
Aluminum	9100		8850	2.3	10	
Barium	50		43.4	14	10	V
Beryllium	0.20		0.204	NC	10	J
Cadmium	9.6		8.46	12	10	V
Chromium	9.5		8.90	6.8	10	
Cobalt	36		33.5	6.8	10	
Copper	230		225	2.7	10	
Lead	430		402	7.0	10	
Nickel	9.7		8.85	NC	10	
Selenium	0.52	J	ND	NC	10	
Silver	3.9		3.54	9.3	10	
Sodium	350		326	NC	10	J
Thallium	0.38	J	0.820	NC	10	J
Vanadium	59		54.4	7.7	10	
Zinc	830		782	6.1	10	

Duplicate - Batch: 580-97974

Method: 6020
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	068SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0200 g
Analysis Date:	10/18/2011 1955	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual		Result	RPD	Limit	Qual
Aluminum	9100		9290	2	20	
Barium	50		50.7	0.6	20	
Beryllium	0.20		0.200	0.7	20	
Cadmium	9.6		9.79	2	20	
Chromium	9.5		9.68	1	20	
Cobalt	36		37.1	3	20	
Copper	230		239	3	20	
Lead	430		444	3	20	
Nickel	9.7		9.82	2	20	
Selenium	0.52	J	0.514	1	20	J
Silver	3.9		4.06	4	20	
Sodium	350		356	1	20	
Thallium	0.38	J	0.385	0.6	20	J
Vanadium	59		60.3	2	20	

Duplicate - Batch: 580-97974 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98033	Instrument ID:	SEA044
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	068SMPL.D#.raw
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	1.0200 g
Analysis Date:	10/18/2011 1955	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Zinc	830	848	2	20	

Serial Dilution - Batch: 580-97974 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	250	Leach Batch:	N/A	Initial Weight/Volume:	1.0588 g
Analysis Date:	10/19/2011 1415	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	%Diff	Limit	Qual
Antimony	29	29.0	0.22	10	
Arsenic	1200	1250	3.8	10	
Manganese	9600	9890	3.1	10	

Duplicate - Batch: 580-97974 **Method: 6020**
Preparation: 3050B

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98109	Instrument ID:	SEA026
Client Matrix:	Solid	Prep Batch:	580-97974	Lab File ID:	97966-ICPMS.rep
Dilution:	50	Leach Batch:	N/A	Initial Weight/Volume:	1.0200 g
Analysis Date:	10/19/2011 1421	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1431				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	29	30.4	5	20	
Arsenic	1200	1270	5	20	
Manganese	9600	10000	5	20	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Method Blank - Batch: 580-97935

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-97935/21-A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	10/18/2011 1451	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0053	0.017

LCS-Certified Reference Material - Batch: 580-97935

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.1001 g
Analysis Date:	10/18/2011 1457	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	17.7	109	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97935

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-97935/22-A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	10/18/2011 1453	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97935/23-A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	10/18/2011 1455	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	104	98	80 - 120	6	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97935

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-97935/22-A	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	1.0		
Analysis Date:	10/18/2011 1453		
Prep Date:	10/18/2011 1047		
Leach Date:	N/A		

LCSD Lab Sample ID:	LCSD 580-97935/23-A
Client Matrix:	Solid
Dilution:	1.0
Analysis Date:	10/18/2011 1455
Prep Date:	10/18/2011 1047
Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.167	0.167	0.174	0.163

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97935

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-29110-1	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.6511 g
Analysis Date:	10/18/2011 1503			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-1	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.6136 g
Analysis Date:	10/18/2011 1505			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				
Leach Date:	N/A				

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	116	134	80 - 120	9	20		F

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97935

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-29110-1	Units: mg/Kg	
Client Matrix:	Solid		
Dilution:	10		
Analysis Date:	10/18/2011 1503		
Prep Date:	10/18/2011 1047		
Leach Date:	N/A		

MSD Lab Sample ID:	580-29110-1
Client Matrix:	Solid
Dilution:	10
Analysis Date:	10/18/2011 1505
Prep Date:	10/18/2011 1047
Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual	MSD Result/Qual	
Mercury	0.28	0.168	0.178	0.478	0.522	F

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Duplicate - Batch: 580-97935

Method: 7471A
Preparation: 7471A

Lab Sample ID:	580-29110-1	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97935	Lab File ID:	97935-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.7143 g
Analysis Date:	10/18/2011 1501	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1047				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	0.28	0.315	11	20	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Method Blank - Batch: 580-97946

Method: 7471A
Preparation: 7471A

Lab Sample ID:	MB 580-97946/20-A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	10/18/2011 1550	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				
Leach Date:	N/A				

Analyte	Result	Qual	MDL	RL
Mercury	ND		0.0053	0.017

LCS-Certified Reference Material - Batch: 580-97946

Method: 7471A
Preparation: 7471A

Lab Sample ID:	LCSSRM	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.1035 g
Analysis Date:	10/18/2011 1556	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				
Leach Date:	N/A				

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	16.3	16.7	102	51.1 - 148.9	

Lab Control Sample/
Lab Control Sample Duplicate Recovery Report - Batch: 580-97946

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-97946/21-A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	10/18/2011 1552	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				
Leach Date:	N/A				

LCSD Lab Sample ID:	LCSD 580-97946/22-A	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	1.0	Leach Batch:	N/A	Initial Weight/Volume:	0.6 g
Analysis Date:	10/18/2011 1554	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				
Leach Date:	N/A				

	% Rec.						
Analyte	LCS	LCSD	Limit	RPD	RPD Limit	LCS Qual	LCSD Qual
Mercury	102	100	80 - 120	2	20		

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Laboratory Control/
Laboratory Duplicate Data Report - Batch: 580-97946

Method: 7471A
Preparation: 7471A

LCS Lab Sample ID:	LCS 580-97946/21-A	Units:	mg/Kg	LCSD Lab Sample ID:	LCSD 580-97946/22-A
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	1.0			Dilution:	1.0
Analysis Date:	10/18/2011 1552			Analysis Date:	10/18/2011 1554
Prep Date:	10/18/2011 1156			Prep Date:	10/18/2011 1156
Leach Date:	N/A			Leach Date:	N/A

Analyte	LCS Spike Amount	LCSD Spike Amount	LCS Result/Qual	LCSD Result/Qual
Mercury	0.167	0.167	0.170	0.166

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97946

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-29110-18	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.6756 g
Analysis Date:	10/18/2011 1606			Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				
Leach Date:	N/A				

MSD Lab Sample ID:	580-29110-18	Analysis Batch:	580-98059	Instrument ID:	TAC103		
Client Matrix:	Solid	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV		
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.6272 g		
Analysis Date:	10/18/2011 1608			Final Weight/Volume:	50 mL		
Prep Date:	10/18/2011 1156						
Leach Date:	N/A						

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Mercury	57	119	80 - 120	8	20	4	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 580-97946

Method: 7471A
Preparation: 7471A

MS Lab Sample ID:	580-29110-18	Units:	mg/Kg	MSD Lab Sample ID:	580-29110-18
Client Matrix:	Solid			Client Matrix:	Solid
Dilution:	10			Dilution:	10
Analysis Date:	10/18/2011 1606			Analysis Date:	10/18/2011 1608
Prep Date:	10/18/2011 1156			Prep Date:	10/18/2011 1156
Leach Date:	N/A			Leach Date:	N/A

Analyte	Sample Result/Qual	MS Spike Amount	MSD Spike Amount	MS Result/Qual		MSD Result/Qual	
Mercury	1.2	0.154	0.166	1.24	4	1.35	4

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Duplicate - Batch: 580-97946

Method: 7471A
Preparation: 7471A

Lab Sample ID:	580-29110-18	Analysis Batch:	580-98059	Instrument ID:	TAC103
Client Matrix:	Solid	Prep Batch:	580-97946	Lab File ID:	97935-HG.CSV
Dilution:	10	Leach Batch:	N/A	Initial Weight/Volume:	0.6137 g
Analysis Date:	10/18/2011 1604	Units:	mg/Kg	Final Weight/Volume:	50 mL
Prep Date:	10/18/2011 1156				
Leach Date:	N/A				

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Mercury	1.2	1.15	0.07	20	

DATA REPORTING QUALIFIERS

Client: Hart Crowser, Inc. Job Number: 580-29110-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	W	PS: Post-digestion spike was outside control limits
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	F	RPD of the MS and MSD exceeds the control limits
	V	Serial Dilution exceeds the control limits

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-97935					
LCS 580-97935/22-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-97935/23-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-97935/24-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-97935/21-A	Method Blank	T	Solid	7471A	
580-29110-1	PUSHER S-1 0-6	T	Solid	7471A	
580-29110-1DU	Duplicate	T	Solid	7471A	
580-29110-1MS	Matrix Spike	T	Solid	7471A	
580-29110-1MSD	Matrix Spike Duplicate	T	Solid	7471A	
580-29110-2	PUSHER S-1 6-12	T	Solid	7471A	
580-29110-3	PUSHER S-2 0-6	T	Solid	7471A	
580-29110-4	PUSHER S-2 6-12	T	Solid	7471A	
580-29110-5	PUSHER S-3 0-6	T	Solid	7471A	
580-29110-6	PUSHER S-3 6-12	T	Solid	7471A	
580-29110-7	IBEX S1 0-6	T	Solid	7471A	
580-29110-8	IBEX S2 0-6	T	Solid	7471A	
580-29110-9	O+B UPPER S1 0-6	T	Solid	7471A	
580-29110-10	O+B UPPER S2 0-6	T	Solid	7471A	
580-29110-11	O+B UPPER S3 0-6	T	Solid	7471A	
580-29110-12	O+B LOWER S1 0-6	T	Solid	7471A	
580-29110-13	O+B LOWER S2 0-6	T	Solid	7471A	
580-29110-14	76-7	T	Solid	7471A	
580-29110-15	76-8	T	Solid	7471A	
580-29110-16	CONGRESS S1 0-6	T	Solid	7471A	
580-29110-17	CONGRESS S1 6-12	T	Solid	7471A	
Prep Batch: 580-97946					
LCS 580-97946/21-A	Lab Control Sample	T	Solid	7471A	
LCSD 580-97946/22-A	Lab Control Sample Duplicate	T	Solid	7471A	
LCSSRM 580-97946/23-A	LCS-Certified Reference Material	T	Solid	7471A	
MB 580-97946/20-A	Method Blank	T	Solid	7471A	
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	7471A	
580-29110-18DU	Duplicate	T	Solid	7471A	
580-29110-18MS	Matrix Spike	T	Solid	7471A	
580-29110-18MSD	Matrix Spike Duplicate	T	Solid	7471A	
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	7471A	
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	7471A	
580-29110-21	CONGRESS S2 0-6	T	Solid	7471A	
580-29110-22	CONGRESS S2 6-12	T	Solid	7471A	
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	7471A	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 580-97966					
LCS 580-97966/22-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-97966/23-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-97966/24-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-97966/21-A	Method Blank	T	Solid	3050B	
580-29110-1	PUSHER S-1 0-6	T	Solid	3050B	
580-29110-1DU	Duplicate	T	Solid	3050B	
580-29110-1MS	Matrix Spike	T	Solid	3050B	
580-29110-1MSD	Matrix Spike Duplicate	T	Solid	3050B	
580-29110-2	PUSHER S-1 6-12	T	Solid	3050B	
580-29110-3	PUSHER S-2 0-6	T	Solid	3050B	
580-29110-4	PUSHER S-2 6-12	T	Solid	3050B	
580-29110-5	PUSHER S-3 0-6	T	Solid	3050B	
580-29110-6	PUSHER S-3 6-12	T	Solid	3050B	
580-29110-7	IBEX S1 0-6	T	Solid	3050B	
580-29110-8	IBEX S2 0-6	T	Solid	3050B	
580-29110-9	O+B UPPER S1 0-6	T	Solid	3050B	
580-29110-10	O+B UPPER S2 0-6	T	Solid	3050B	
580-29110-11	O+B UPPER S3 0-6	T	Solid	3050B	
580-29110-12	O+B LOWER S1 0-6	T	Solid	3050B	
580-29110-13	O+B LOWER S2 0-6	T	Solid	3050B	
580-29110-14	76-7	T	Solid	3050B	
580-29110-15	76-8	T	Solid	3050B	
580-29110-16	CONGRESS S1 0-6	T	Solid	3050B	
580-29110-17	CONGRESS S1 6-12	T	Solid	3050B	
Prep Batch: 580-97974					
LCS 580-97974/21-A	Lab Control Sample	T	Solid	3050B	
LCSD 580-97974/22-A	Lab Control Sample Duplicate	T	Solid	3050B	
LCSSRM 580-97974/23-A	LCS-Certified Reference Material	T	Solid	3050B	
MB 580-97974/20-A	Method Blank	T	Solid	3050B	
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	3050B	
580-29110-18DU	Duplicate	T	Solid	3050B	
580-29110-18MS	Matrix Spike	T	Solid	3050B	
580-29110-18MSD	Matrix Spike Duplicate	T	Solid	3050B	
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	3050B	
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	3050B	
580-29110-21	CONGRESS S2 0-6	T	Solid	3050B	
580-29110-22	CONGRESS S2 6-12	T	Solid	3050B	
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	3050B	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-98033					
LCS 580-97966/22-A	Lab Control Sample	T	Solid	6020	580-97966
LCSD 580-97966/23-A	Lab Control Sample Duplicate	T	Solid	6020	580-97966
LCSSRM 580-97966/24-A	LCS-Certified Reference Material	T	Solid	6020	580-97966
MB 580-97966/21-A	Method Blank	T	Solid	6020	580-97966
LCS 580-97974/21-A	Lab Control Sample	T	Solid	6020	580-97974
LCSD 580-97974/22-A	Lab Control Sample Duplicate	T	Solid	6020	580-97974
LCSSRM 580-97974/23-A	LCS-Certified Reference Material	T	Solid	6020	580-97974
MB 580-97974/20-A	Method Blank	T	Solid	6020	580-97974
580-29110-1	PUSHER S-1 0-6	T	Solid	6020	580-97966
580-29110-1DU	Duplicate	T	Solid	6020	580-97966
580-29110-1MS	Matrix Spike	T	Solid	6020	580-97966
580-29110-1MSD	Matrix Spike Duplicate	T	Solid	6020	580-97966
580-29110-2	PUSHER S-1 6-12	T	Solid	6020	580-97966
580-29110-3	PUSHER S-2 0-6	T	Solid	6020	580-97966
580-29110-4	PUSHER S-2 6-12	T	Solid	6020	580-97966
580-29110-5	PUSHER S-3 0-6	T	Solid	6020	580-97966
580-29110-6	PUSHER S-3 6-12	T	Solid	6020	580-97966
580-29110-7	IBEX S1 0-6	T	Solid	6020	580-97966
580-29110-8	IBEX S2 0-6	T	Solid	6020	580-97966
580-29110-9	O+B UPPER S1 0-6	T	Solid	6020	580-97966
580-29110-10	O+B UPPER S2 0-6	T	Solid	6020	580-97966
580-29110-11	O+B UPPER S3 0-6	T	Solid	6020	580-97966
580-29110-12	O+B LOWER S1 0-6	T	Solid	6020	580-97966
580-29110-13	O+B LOWER S2 0-6	T	Solid	6020	580-97966
580-29110-14	76-7	T	Solid	6020	580-97966
580-29110-15	76-8	T	Solid	6020	580-97966
580-29110-16	CONGRESS S1 0-6	T	Solid	6020	580-97966
580-29110-17	CONGRESS S1 6-12	T	Solid	6020	580-97966
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	6020	580-97974
580-29110-18DU	Duplicate	T	Solid	6020	580-97974
580-29110-18MS	Matrix Spike	T	Solid	6020	580-97974
580-29110-18MSD	Matrix Spike Duplicate	T	Solid	6020	580-97974
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	6020	580-97974
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	6020	580-97974
580-29110-21	CONGRESS S2 0-6	T	Solid	6020	580-97974
580-29110-22	CONGRESS S2 6-12	T	Solid	6020	580-97974
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	6020	580-97974

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-98052					
LCS 580-97966/22-A	Lab Control Sample	T	Solid	6010B	580-97966
LCSD 580-97966/23-A	Lab Control Sample Duplicate	T	Solid	6010B	580-97966
LCSSRM 580-97966/24-A	LCS-Certified Reference Material	T	Solid	6010B	580-97966
MB 580-97966/21-A	Method Blank	T	Solid	6010B	580-97966
580-29110-1	PUSHER S-1 0-6	T	Solid	6010B	580-97966
580-29110-1DU	Duplicate	T	Solid	6010B	580-97966
580-29110-1MS	Matrix Spike	T	Solid	6010B	580-97966
580-29110-1MSD	Matrix Spike Duplicate	T	Solid	6010B	580-97966
580-29110-2	PUSHER S-1 6-12	T	Solid	6010B	580-97966
580-29110-3	PUSHER S-2 0-6	T	Solid	6010B	580-97966
580-29110-4	PUSHER S-2 6-12	T	Solid	6010B	580-97966
580-29110-5	PUSHER S-3 0-6	T	Solid	6010B	580-97966
580-29110-6	PUSHER S-3 6-12	T	Solid	6010B	580-97966
580-29110-7	IBEX S1 0-6	T	Solid	6010B	580-97966
580-29110-8	IBEX S2 0-6	T	Solid	6010B	580-97966
580-29110-9	O+B UPPER S1 0-6	T	Solid	6010B	580-97966
580-29110-10	O+B UPPER S2 0-6	T	Solid	6010B	580-97966
580-29110-11	O+B UPPER S3 0-6	T	Solid	6010B	580-97966
580-29110-12	O+B LOWER S1 0-6	T	Solid	6010B	580-97966
580-29110-13	O+B LOWER S2 0-6	T	Solid	6010B	580-97966
580-29110-14	76-7	T	Solid	6010B	580-97966
580-29110-15	76-8	T	Solid	6010B	580-97966
580-29110-16	CONGRESS S1 0-6	T	Solid	6010B	580-97966
580-29110-17	CONGRESS S1 6-12	T	Solid	6010B	580-97966
Analysis Batch:580-98054					
LCS 580-97974/21-A	Lab Control Sample	T	Solid	6010B	580-97974
LCSD 580-97974/22-A	Lab Control Sample Duplicate	T	Solid	6010B	580-97974
LCSSRM 580-97974/23-A	LCS-Certified Reference Material	T	Solid	6010B	580-97974
MB 580-97974/20-A	Method Blank	T	Solid	6010B	580-97974
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	6010B	580-97974
580-29110-18DU	Duplicate	T	Solid	6010B	580-97974
580-29110-18MS	Matrix Spike	T	Solid	6010B	580-97974
580-29110-18MSD	Matrix Spike Duplicate	T	Solid	6010B	580-97974
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	6010B	580-97974
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	6010B	580-97974
580-29110-21	CONGRESS S2 0-6	T	Solid	6010B	580-97974
580-29110-22	CONGRESS S2 6-12	T	Solid	6010B	580-97974
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	6010B	580-97974

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-98059					
LCS 580-97935/22-A	Lab Control Sample	T	Solid	7471A	580-97935
LCSD 580-97935/23-A	Lab Control Sample Duplicate	T	Solid	7471A	580-97935
LCSSRM 580-97935/24-A	LCS-Certified Reference Material	T	Solid	7471A	580-97935
MB 580-97935/21-A	Method Blank	T	Solid	7471A	580-97935
LCS 580-97946/21-A	Lab Control Sample	T	Solid	7471A	580-97946
LCSD 580-97946/22-A	Lab Control Sample Duplicate	T	Solid	7471A	580-97946
LCSSRM 580-97946/23-A	LCS-Certified Reference Material	T	Solid	7471A	580-97946
MB 580-97946/20-A	Method Blank	T	Solid	7471A	580-97946
580-29110-1	PUSHER S-1 0-6	T	Solid	7471A	580-97935
580-29110-1DU	Duplicate	T	Solid	7471A	580-97935
580-29110-1MS	Matrix Spike	T	Solid	7471A	580-97935
580-29110-1MSD	Matrix Spike Duplicate	T	Solid	7471A	580-97935
580-29110-2	PUSHER S-1 6-12	T	Solid	7471A	580-97935
580-29110-3	PUSHER S-2 0-6	T	Solid	7471A	580-97935
580-29110-4	PUSHER S-2 6-12	T	Solid	7471A	580-97935
580-29110-5	PUSHER S-3 0-6	T	Solid	7471A	580-97935
580-29110-6	PUSHER S-3 6-12	T	Solid	7471A	580-97935
580-29110-7	IBEX S1 0-6	T	Solid	7471A	580-97935
580-29110-8	IBEX S2 0-6	T	Solid	7471A	580-97935
580-29110-9	O+B UPPER S1 0-6	T	Solid	7471A	580-97935
580-29110-10	O+B UPPER S2 0-6	T	Solid	7471A	580-97935
580-29110-11	O+B UPPER S3 0-6	T	Solid	7471A	580-97935
580-29110-12	O+B LOWER S1 0-6	T	Solid	7471A	580-97935
580-29110-13	O+B LOWER S2 0-6	T	Solid	7471A	580-97935
580-29110-14	76-7	T	Solid	7471A	580-97935
580-29110-15	76-8	T	Solid	7471A	580-97935
580-29110-16	CONGRESS S1 0-6	T	Solid	7471A	580-97935
580-29110-17	CONGRESS S1 6-12	T	Solid	7471A	580-97935
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	7471A	580-97946
580-29110-18DU	Duplicate	T	Solid	7471A	580-97946
580-29110-18MS	Matrix Spike	T	Solid	7471A	580-97946
580-29110-18MSD	Matrix Spike Duplicate	T	Solid	7471A	580-97946
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	7471A	580-97946
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	7471A	580-97946
580-29110-21	CONGRESS S2 0-6	T	Solid	7471A	580-97946
580-29110-22	CONGRESS S2 6-12	T	Solid	7471A	580-97946
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	7471A	580-97946

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-98109					
LCS 580-97966/22-A	Lab Control Sample	T	Solid	6020	580-97966
LCSD 580-97966/23-A	Lab Control Sample Duplicate	T	Solid	6020	580-97966
LCSSRM 580-97966/24-A	LCS-Certified Reference Material	T	Solid	6020	580-97966
MB 580-97966/21-A	Method Blank	T	Solid	6020	580-97966
LCS 580-97974/21-A	Lab Control Sample	T	Solid	6020	580-97974
LCSD 580-97974/22-A	Lab Control Sample Duplicate	T	Solid	6020	580-97974
LCSSRM 580-97974/23-A	LCS-Certified Reference Material	T	Solid	6020	580-97974
MB 580-97974/20-A	Method Blank	T	Solid	6020	580-97974
580-29110-1	PUSHER S-1 0-6	T	Solid	6020	580-97966
580-29110-1DU	Duplicate	T	Solid	6020	580-97966
580-29110-1MS	Matrix Spike	T	Solid	6020	580-97966
580-29110-1MSD	Matrix Spike Duplicate	T	Solid	6020	580-97966
580-29110-2	PUSHER S-1 6-12	T	Solid	6020	580-97966
580-29110-3	PUSHER S-2 0-6	T	Solid	6020	580-97966
580-29110-4	PUSHER S-2 6-12	T	Solid	6020	580-97966
580-29110-5	PUSHER S-3 0-6	T	Solid	6020	580-97966
580-29110-6	PUSHER S-3 6-12	T	Solid	6020	580-97966
580-29110-7	IBEX S1 0-6	T	Solid	6020	580-97966
580-29110-8	IBEX S2 0-6	T	Solid	6020	580-97966
580-29110-9	O+B UPPER S1 0-6	T	Solid	6020	580-97966
580-29110-10	O+B UPPER S2 0-6	T	Solid	6020	580-97966
580-29110-11	O+B UPPER S3 0-6	T	Solid	6020	580-97966
580-29110-12	O+B LOWER S1 0-6	T	Solid	6020	580-97966
580-29110-13	O+B LOWER S2 0-6	T	Solid	6020	580-97966
580-29110-14	76-7	T	Solid	6020	580-97966
580-29110-15	76-8	T	Solid	6020	580-97966
580-29110-16	CONGRESS S1 0-6	T	Solid	6020	580-97966
580-29110-17	CONGRESS S1 6-12	T	Solid	6020	580-97966
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	6020	580-97974
580-29110-18DU	Duplicate	T	Solid	6020	580-97974
580-29110-18MS	Matrix Spike	T	Solid	6020	580-97974
580-29110-18MSD	Matrix Spike Duplicate	T	Solid	6020	580-97974
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	6020	580-97974
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	6020	580-97974
580-29110-21	CONGRESS S2 0-6	T	Solid	6020	580-97974
580-29110-22	CONGRESS S2 6-12	T	Solid	6020	580-97974
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	6020	580-97974

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:580-98286					
LCS 580-97966/22-A	Lab Control Sample	T	Solid	6010B	580-97966
LCSD 580-97966/23-A	Lab Control Sample Duplicate	T	Solid	6010B	580-97966
LCSSRM 580-97966/24-A	LCS-Certified Reference Material	T	Solid	6010B	580-97966
MB 580-97966/21-A	Method Blank	T	Solid	6010B	580-97966
LCS 580-97974/21-A	Lab Control Sample	T	Solid	6010B	580-97974
LCSD 580-97974/22-A	Lab Control Sample Duplicate	T	Solid	6010B	580-97974
LCSSRM 580-97974/23-A	LCS-Certified Reference Material	T	Solid	6010B	580-97974
MB 580-97974/20-A	Method Blank	T	Solid	6010B	580-97974
580-29110-1	PUSHER S-1 0-6	T	Solid	6010B	580-97966
580-29110-1DU	Duplicate	T	Solid	6010B	580-97966
580-29110-1MS	Matrix Spike	T	Solid	6010B	580-97966
580-29110-1MSD	Matrix Spike Duplicate	T	Solid	6010B	580-97966
580-29110-2	PUSHER S-1 6-12	T	Solid	6010B	580-97966
580-29110-3	PUSHER S-2 0-6	T	Solid	6010B	580-97966
580-29110-4	PUSHER S-2 6-12	T	Solid	6010B	580-97966
580-29110-5	PUSHER S-3 0-6	T	Solid	6010B	580-97966
580-29110-6	PUSHER S-3 6-12	T	Solid	6010B	580-97966
580-29110-7	IBEX S1 0-6	T	Solid	6010B	580-97966
580-29110-8	IBEX S2 0-6	T	Solid	6010B	580-97966
580-29110-9	O+B UPPER S1 0-6	T	Solid	6010B	580-97966
580-29110-10	O+B UPPER S2 0-6	T	Solid	6010B	580-97966
580-29110-11	O+B UPPER S3 0-6	T	Solid	6010B	580-97966
580-29110-12	O+B LOWER S1 0-6	T	Solid	6010B	580-97966
580-29110-13	O+B LOWER S2 0-6	T	Solid	6010B	580-97966
580-29110-14	76-7	T	Solid	6010B	580-97966
580-29110-15	76-8	T	Solid	6010B	580-97966
580-29110-16	CONGRESS S1 0-6	T	Solid	6010B	580-97966
580-29110-17	CONGRESS S1 6-12	T	Solid	6010B	580-97966
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	6010B	580-97974
580-29110-18DU	Duplicate	T	Solid	6010B	580-97974
580-29110-18MS	Matrix Spike	T	Solid	6010B	580-97974
580-29110-18MSD	Matrix Spike Duplicate	T	Solid	6010B	580-97974
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	6010B	580-97974
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	6010B	580-97974
580-29110-21	CONGRESS S2 0-6	T	Solid	6010B	580-97974
580-29110-22	CONGRESS S2 6-12	T	Solid	6010B	580-97974
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	6010B	580-97974

Report Basis
T = Total

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:580-97058					
580-29110-1	PUSHER S-1 0-6	T	Solid	Moisture	
580-29110-2	PUSHER S-1 6-12	T	Solid	Moisture	
580-29110-3	PUSHER S-2 0-6	T	Solid	Moisture	
580-29110-4	PUSHER S-2 6-12	T	Solid	Moisture	
580-29110-5	PUSHER S-3 0-6	T	Solid	Moisture	
580-29110-6	PUSHER S-3 6-12	T	Solid	Moisture	
580-29110-7	IBEX S1 0-6	T	Solid	Moisture	
580-29110-8	IBEX S2 0-6	T	Solid	Moisture	
580-29110-9	O+B UPPER S1 0-6	T	Solid	Moisture	
580-29110-10	O+B UPPER S2 0-6	T	Solid	Moisture	
580-29110-11	O+B UPPER S3 0-6	T	Solid	Moisture	
Analysis Batch:580-97065					
580-29110-12	O+B LOWER S1 0-6	T	Solid	Moisture	
580-29110-13	O+B LOWER S2 0-6	T	Solid	Moisture	
580-29110-14	76-7	T	Solid	Moisture	
580-29110-15	76-8	T	Solid	Moisture	
580-29110-16	CONGRESS S1 0-6	T	Solid	Moisture	
580-29110-17	CONGRESS S1 6-12	T	Solid	Moisture	
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	Moisture	
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	Moisture	
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	Moisture	
580-29110-21	CONGRESS S2 0-6	T	Solid	Moisture	
580-29110-22	CONGRESS S2 6-12	T	Solid	Moisture	
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	Moisture	
Analysis Batch:580-97871					
580-29110-1	PUSHER S-1 0-6	T	Solid	9045C	
580-29110-2	PUSHER S-1 6-12	T	Solid	9045C	
580-29110-3	PUSHER S-2 0-6	T	Solid	9045C	
580-29110-4	PUSHER S-2 6-12	T	Solid	9045C	
580-29110-5	PUSHER S-3 0-6	T	Solid	9045C	
580-29110-6	PUSHER S-3 6-12	T	Solid	9045C	

Client: Hart Crowser, Inc. Job Number: 580-29110-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:580-97873					
580-29110-7	IBEX S1 0-6	T	Solid	9045C	
580-29110-8	IBEX S2 0-6	T	Solid	9045C	
580-29110-9	O+B UPPER S1 0-6	T	Solid	9045C	
580-29110-10	O+B UPPER S2 0-6	T	Solid	9045C	
580-29110-11	O+B UPPER S3 0-6	T	Solid	9045C	
580-29110-12	O+B LOWER S1 0-6	T	Solid	9045C	
580-29110-13	O+B LOWER S2 0-6	T	Solid	9045C	
580-29110-14	76-7	T	Solid	9045C	
580-29110-15	76-8	T	Solid	9045C	
580-29110-16	CONGRESS S1 0-6	T	Solid	9045C	
580-29110-17	CONGRESS S1 6-12	T	Solid	9045C	
580-29110-18	PORTLAND 2 S1 0-6	T	Solid	9045C	
580-29110-19	PORTLAND 2 S1 6-12	T	Solid	9045C	
580-29110-20	PORTLAND 2 S2 0-6	T	Solid	9045C	
580-29110-21	CONGRESS S2 0-6	T	Solid	9045C	
580-29110-22	CONGRESS S2 6-12	T	Solid	9045C	
580-29110-23	PORTLAND 2 S2 6-12	T	Solid	9045C	

Report Basis
T = Total

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
Hg_CAL_WORK_00009	01/12/12	10/12/11	H2O, Lot standard	1000 mg/L	Hg_CAL_STOCK_00001	1 mL	Mercury	0.1 mg/L
.Hg_CAL_STOCK_00001	06/30/14	AccuStandard, Lot B7045094-1A			(Purchased Reagent)		Mercury	100 mg/L
Hg_ICV_WORK_00010	01/12/12	10/12/11	H2O, Lot standard	1000 mg/L	Hg_ICV_STOCK_00002	1 mL	Mercury	0.1 mg/L
.Hg_ICV_STOCK_00002	01/29/12	CPI, Lot 10D252			(Purchased Reagent)		Mercury	100 mg/L
ICP CCV_00034	07/28/12	09/28/11	DI, Lot NA	1000 mL	ICP Std SolnA_00001	2 mL	Calcium	20 mg/L
							Iron	10 mg/L
							Magnesium	20 mg/L
							Potassium	20 mg/L
.ICP Std SolnA_00001	07/28/12	CPI, Lot 11A193			(Purchased Reagent)		Calcium	10000 ug/mL
							Iron	5000 ug/mL
							Magnesium	10000 ug/mL
							Potassium	10000 ug/mL
ICP ICSA_00037	11/26/12	09/28/11	DI, Lot NA	500 mL	ICP ICSA_00033	50 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
.ICP ICSA_00033	11/26/12	CPI, Lot 11E080			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
ICP ICSAB_00029	11/26/12	09/28/11	H2O, Lot NA	500 mL	ICP ICSA_00033	50 mL	Aluminum	500 mg/L
							Calcium	500 mg/L
							Iron	200 mg/L
							Magnesium	500 mg/L
					ICPICSB-A_00003	5 mL	Potassium	200 mg/L
.ICP ICSA_00033	11/26/12	CPI, Lot 11E080			(Purchased Reagent)		Aluminum	5000 ug/mL
							Calcium	5000 ug/mL
							Iron	2000 ug/mL
							Magnesium	5000 ug/mL
.ICPICSB-A_00003	11/26/12	CPI, Lot 09F247			(Purchased Reagent)		Potassium	20000 ug/mL
ICP ICV-2_00018	02/10/12	09/28/11	blk, Lot NA	500 mL	ICP-ICV-1_00001	2.5 mL	Calcium	5 mg/L
							Iron	5 mg/L
							Magnesium	5 mg/L
							Potassium	15 mg/L
.ICP-ICV-1_00001	08/15/12	Spex, Lot 3-172YP			(Purchased Reagent)		Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
							Potassium	3000 mg/L
ICP RL_00021	02/10/12	09/28/11	DI, Lot NA	500 mL	ICP RL 02A_00002	0.5 mL	Iron	0.2 mg/L
					ICP RL 02B_00002	0.5 mL	Calcium	1.1 mg/L
							Magnesium	1.1 mg/L
							Potassium	3.3 mg/L
					ICP-ICV-1_00001	0.05 mL	Calcium	1.1 mg/L
							Iron	0.2 mg/L
							Magnesium	1.1 mg/L
							Potassium	3.3 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
.ICP RL 02A_00002	02/29/12		Elements, Lot cs7012137		(Purchased Reagent)		Iron	100 mg/L
.ICP RL 02B_00002	02/29/12		Elements, Lot CS7012138		(Purchased Reagent)		Calcium	1000 mg/L
							Magnesium	1000 mg/L
							Potassium	3000 mg/L
.ICP-ICV-1_00001	08/15/12		Spex, Lot 3-172YP		(Purchased Reagent)		Calcium	1000 mg/L
							Iron	1000 mg/L
							Magnesium	1000 mg/L
							Potassium	3000 mg/L
ICPMS- ICSA_00002	12/01/11		Inorganic Ventures, Lot d2-meb329124		(Purchased Reagent)		Aluminum	1000 ug/mL
							Calcium	3000 ug/mL
							Iron	2500 ug/mL
							Magnesium	1000 ug/mL
							Mo	20 ug/mL
							P	1000 ug/mL
							Potassium	1000 ug/mL
							Sodium	2500 ug/mL
							Ti	20 ug/mL
ICPMS-ICSB_00002	12/01/11		Inorganic Ventures, Lot d2-meb324099		(Purchased Reagent)		Arsenic	10 ug/mL
							Cadmium	10 ug/mL
							Chromium	20 ug/mL
							Cobalt	20 ug/mL
							Copper	20 ug/mL
							Manganese	20 ug/mL
							Nickel	20 ug/mL
							Selenium	10 ug/mL
							Silver	5 ug/mL
							Vanadium	20 ug/mL
							Zinc	10 ug/mL
ICPMS_CAL_WOR_00008	12/22/11	09/22/11	H2O, Lot 092211	1000 mL	ICPMS_CAL_00002	10 mL	Aluminum	1000 ug/L
							Antimony	100 ug/L
							Arsenic	100 ug/L
							Barium	100 ug/L
							Beryllium	100 ug/L
							Cadmium	100 ug/L
							Chromium	100 ug/L
							Cobalt	100 ug/L
							Copper	100 ug/L
							Lead	100 ug/L
							Manganese	100 ug/L
							Nickel	100 ug/L
							Selenium	100 ug/L
							Silver	100 ug/L
							Sodium	10000 ug/L
							Thallium	100 ug/L
							Vanadium	100 ug/L
							Zinc	100 ug/L
.ICPMS_CAL_00002	02/09/13		CPI, Lot 11H057		(Purchased Reagent)		Aluminum	100 mg/L
							Antimony	10 mg/L
							Arsenic	10 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Lead	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L
							Selenium	10 mg/L
							Silver	10 mg/L
							Sodium	1000 mg/L
							Thallium	10 mg/L
							Vanadium	10 mg/L
							Zinc	10 mg/L
ICPMS_ICV_WOR_00010	11/15/11	08/15/11	H2O, Lot 021511	1000 mL	ICPMS_ICV_00003	4 mL	Aluminum	400 ug/L
							Antimony	40 ug/L
							Arsenic	40 ug/L
							Barium	40 ug/L
							Beryllium	40 ug/L
							Cadmium	40 ug/L
							Chromium	40 ug/L
							Cobalt	40 ug/L
							Copper	40 ug/L
							Lead	40 ug/L
							Manganese	40 ug/L
							Nickel	40 ug/L
							Selenium	40 ug/L
							Silver	40 ug/L
							Sodium	4000 ug/L
							Thallium	40 ug/L
							Vanadium	40 ug/L
							Zinc	40 ug/L
.ICPMS_ICV_00003	01/30/12		SPEX, Lot 5-236cr		(Purchased Reagent)		Aluminum	100 mg/L
							Antimony	10 mg/L
							Arsenic	10 mg/L
							Barium	10 mg/L
							Beryllium	10 mg/L
							Cadmium	10 mg/L
							Chromium	10 mg/L
							Cobalt	10 mg/L
							Copper	10 mg/L
							Lead	10 mg/L
							Manganese	10 mg/L
							Nickel	10 mg/L
							Selenium	10 mg/L
							Silver	10 mg/L
							Sodium	1000 mg/L
							Thallium	10 mg/L
							Vanadium	10 mg/L

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Zinc	10 mg/L
m-GPS-1_00021	12/29/12		CPI, Lot 11F316		(Purchased Reagent)		Aluminum	200 ppm
							Antimony	50 ppm
							Arsenic	200 ppm
							Barium	200 ppm
							Beryllium	5 ppm
							Cadmium	5 ppm
							Chromium	20 ppm
							Cobalt	50 ppm
							Copper	25 ppm
							Iron	100 ppm
							Lead	50 ppm
							Manganese	50 ppm
							Nickel	50 ppm
							Selenium	200 ppm
							Silver	5 ppm
							Thallium	200 ppm
							Vanadium	50 ppm
							Zinc	50 ppm
m-GPS-2_00018	12/29/12		CPI, Lot 11F317		(Purchased Reagent)		Antimony	100 ppm
							Silver	25 ppm
m-GPS-3_00018	12/29/12		CPI, Lot 11F319		(Purchased Reagent)		Calcium	1000 ppm
							Iron	1000 ppm
							Magnesium	1000 ppm
							P	1000 ppm
							Potassium	1000 ppm
							Sodium	1000 ppm
m-GPS-4_00020	12/29/12		CPI, Lot 11F318		(Purchased Reagent)		B	250 ppm
							Mo	250 ppm
							Sn	250 ppm
							Ti	250 ppm
MS-HgSpk_00011	05/10/12	05/10/11	H2O, Lot standard	1000 mg/L	Hg_CAL_STOCK_00001	25 mL	Mercury	2.5 mg/L
.Hg_CAL_STOCK_00001	06/30/14		AccuStandard, Lot B7045094-1A		(Purchased Reagent)		Mercury	100 mg/L
SRMsolid_00006	01/31/14		ERA, Lot D069-540		(Purchased Reagent)		Aluminum	9780 mg/Kg
							Antimony	121 mg/Kg
							Arsenic	109 mg/Kg
							B	142 mg/Kg
							Barium	325 mg/Kg
							Beryllium	92.1 mg/Kg
							Cadmium	110 mg/Kg
							Calcium	6700 mg/Kg
							Chromium	93.4 mg/Kg
							Cobalt	133 mg/Kg
							Copper	84.7 mg/Kg
							Iron	13100 mg/Kg
							Lead	152 mg/Kg
							Magnesium	2970 mg/Kg

REAGENT TRACEABILITY SUMMARY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Reagent ID	Exp Date	Prep Date	Dilutant Used	Reagent Final Volume	Parent Reagent		Analyte	Concentration
					Reagent ID	Volume Added		
							Manganese	443 mg/Kg
							Mercury	16.3 mg/Kg
							Mo	82.5 mg/Kg
							Nickel	109 mg/Kg
							Potassium	2770 mg/Kg
							Selenium	207 mg/Kg
							Silver	51.9 mg/Kg
							Sn	135 mg/Kg
							Sodium	724 mg/Kg
							Sr	111 mg/Kg
							Thallium	171 mg/Kg
							Ti	193 mg/Kg
							Vanadium	110 mg/Kg
							Zinc	299 mg/Kg

Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Monte Cristo

TestAmerica Job ID: 580-29110-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Seattle	Alaska	Alaska UST	10	UST-022
TestAmerica Seattle	Alaska	TA-Port Heiden Mobile Lab	10	UST-093
TestAmerica Seattle	California	NELAC	9	1115CA
TestAmerica Seattle	Florida	NELAC	4	E871074
TestAmerica Seattle	L-A-B	DoD ELAP		L2236
TestAmerica Seattle	L-A-B	ISO/IEC 17025		L2236
TestAmerica Seattle	Louisiana	NELAC	6	05016
TestAmerica Seattle	Montana	MT DEQ UST	8	N/A
TestAmerica Seattle	Oregon	NELAC	10	WA100007
TestAmerica Seattle	USDA	USDA		P330-11-00222
TestAmerica Seattle	Washington	State Program	10	C553

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

METALS

COVER PAGE
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG No.:

Project: Monte Cristo

Client Sample ID	Lab Sample ID
PUSHER S-1 0-6	580-29110-1
PUSHER S-1 6-12	580-29110-2
PUSHER S-2 0-6	580-29110-3
PUSHER S-2 6-12	580-29110-4
PUSHER S-3 0-6	580-29110-5
PUSHER S-3 6-12	580-29110-6
IBEX S1 0-6	580-29110-7
IBEX S2 0-6	580-29110-8
O+B UPPER S1 0-6	580-29110-9
O+B UPPER S2 0-6	580-29110-10
O+B UPPER S3 0-6	580-29110-11
O+B LOWER S1 0-6	580-29110-12
O+B LOWER S2 0-6	580-29110-13
76-7	580-29110-14
76-8	580-29110-15
CONGRESS S1 0-6	580-29110-16
CONGRESS S1 6-12	580-29110-17
PORTLAND 2 S1 0-6	580-29110-18
PORTLAND 2 S1 6-12	580-29110-19
PORTLAND 2 S2 0-6	580-29110-20
CONGRESS S2 0-6	580-29110-21
CONGRESS S2 6-12	580-29110-22
PORTLAND 2 S2 6-12	580-29110-23

Comments:

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PUSHER S-1 0-6 | Lab Sample ID: 580-29110-1

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/27/2011 11:30

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 91.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1100	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	450	53	3.0	mg/Kg		B	1	6010B
7439-89-6	Iron	33000	970	59	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3100	53	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	14000	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	1.3	0.19	0.041	mg/Kg			10	6020
7440-38-2	Arsenic	710	0.48	0.17	mg/Kg			10	6020
7440-39-3	Barium	25	0.19	0.029	mg/Kg			10	6020
7440-41-7	Beryllium	0.082	0.19	0.021	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.11	0.19	0.0078	mg/Kg	J		10	6020
7440-47-3	Chromium	6.2	0.19	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	4.2	0.19	0.018	mg/Kg			10	6020
7440-50-8	Copper	360	0.19	0.095	mg/Kg			10	6020
7439-92-1	Lead	59	0.19	0.013	mg/Kg			10	6020
7439-96-5	Manganese	120	0.48	0.16	mg/Kg			10	6020
7440-02-0	Nickel	2.7	0.19	0.20	mg/Kg			10	6020
7782-49-2	Selenium	1.5	0.68	0.20	mg/Kg			10	6020
7440-22-4	Silver	0.47	0.19	0.012	mg/Kg			10	6020
7440-23-5	Sodium	76	97	38	mg/Kg	J		10	6020
7440-28-0	Thallium	0.37	0.48	0.13	mg/Kg	J		10	6020
7440-62-2	Vanadium	46	0.68	0.46	mg/Kg			10	6020
7440-66-6	Zinc	34	0.68	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.28	0.15	0.048	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PUSHER S-1 6-12 | Lab Sample ID: 580-29110-2

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/27/2011 11:40

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 79.3

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1400	200	19	mg/Kg			1	6010B
7440-70-2	Calcium	440	66	3.7	mg/Kg		B	1	6010B
7439-89-6	Iron	42000	1200	73	mg/Kg		B	100	6010B
7439-95-4	Magnesium	4400	66	3.8	mg/Kg			1	6010B
7429-90-5	Aluminum	14000	36	3.6	mg/Kg			10	6020
7440-36-0	Antimony	1.4	0.24	0.050	mg/Kg			10	6020
7440-38-2	Arsenic	990	6.0	2.2	mg/Kg			100	6020
7440-39-3	Barium	29	0.24	0.036	mg/Kg			10	6020
7440-41-7	Beryllium	0.080	0.24	0.026	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.092	0.24	0.0096	mg/Kg	J		10	6020
7440-47-3	Chromium	6.7	0.24	0.14	mg/Kg			10	6020
7440-48-4	Cobalt	8.0	0.24	0.023	mg/Kg			10	6020
7440-50-8	Copper	320	0.24	0.12	mg/Kg			10	6020
7439-92-1	Lead	26	0.24	0.016	mg/Kg			10	6020
7439-96-5	Manganese	190	6.0	2.0	mg/Kg			100	6020
7440-02-0	Nickel	2.9	0.24	0.24	mg/Kg			10	6020
7782-49-2	Selenium	1.4	0.84	0.24	mg/Kg			10	6020
7440-22-4	Silver	0.58	0.24	0.014	mg/Kg			10	6020
7440-23-5	Sodium	92	120	47	mg/Kg	J		10	6020
7440-28-0	Thallium	0.47	0.60	0.16	mg/Kg	J		10	6020
7440-62-2	Vanadium	59	0.84	0.57	mg/Kg			10	6020
7440-66-6	Zinc	39	0.84	1.3	mg/Kg			10	6020
7439-97-6	Mercury	0.18	0.17	0.052	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PUSHER S-2 0-6 | Lab Sample ID: 580-29110-3

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/27/2011 11:55

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 96.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	2100	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	660	54	3.0	mg/Kg		B	1	6010B
7439-89-6	Iron	100000	980	60	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3900	54	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	7200	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	20	2.0	0.41	mg/Kg			100	6020
7440-38-2	Arsenic	31000	49	18	mg/Kg			1000	6020
7440-39-3	Barium	64	0.20	0.029	mg/Kg			10	6020
7440-41-7	Beryllium	0.079	0.20	0.022	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.35	0.20	0.0078	mg/Kg			10	6020
7440-47-3	Chromium	5.3	0.20	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	9.0	0.20	0.019	mg/Kg			10	6020
7440-50-8	Copper	590	0.20	0.096	mg/Kg			10	6020
7439-92-1	Lead	16	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	290	4.9	1.7	mg/Kg			100	6020
7440-02-0	Nickel	1.9	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	25	0.69	0.20	mg/Kg			10	6020
7440-22-4	Silver	5.7	0.20	0.012	mg/Kg			10	6020
7440-23-5	Sodium	100	98	38	mg/Kg			10	6020
7440-28-0	Thallium	0.37	0.49	0.13	mg/Kg	J		10	6020
7440-62-2	Vanadium	48	0.69	0.46	mg/Kg			10	6020
7440-66-6	Zinc	68	0.69	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.88	0.13	0.042	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PUSHER S-2 6-12 | Lab Sample ID: 580-29110-4

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/27/2011 12:05

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 82.5

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1800	180	18	mg/Kg			1	6010B
7440-70-2	Calcium	520	60	3.4	mg/Kg		B	1	6010B
7439-89-6	Iron	83000	1100	67	mg/Kg		B	100	6010B
7439-95-4	Magnesium	4500	60	3.5	mg/Kg			1	6010B
7429-90-5	Aluminum	8800	33	3.3	mg/Kg			10	6020
7440-36-0	Antimony	19	2.2	0.46	mg/Kg			100	6020
7440-38-2	Arsenic	20000	5.5	2.0	mg/Kg			100	6020
7440-39-3	Barium	52	0.22	0.033	mg/Kg			10	6020
7440-41-7	Beryllium	0.084	0.22	0.024	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.41	0.22	0.0088	mg/Kg			10	6020
7440-47-3	Chromium	6.9	0.22	0.12	mg/Kg			10	6020
7440-48-4	Cobalt	29	0.22	0.021	mg/Kg			10	6020
7440-50-8	Copper	430	0.22	0.11	mg/Kg			10	6020
7439-92-1	Lead	34	0.22	0.014	mg/Kg			10	6020
7439-96-5	Manganese	320	5.5	1.9	mg/Kg			100	6020
7440-02-0	Nickel	1.9	0.22	0.22	mg/Kg			10	6020
7782-49-2	Selenium	16	0.77	0.22	mg/Kg			10	6020
7440-22-4	Silver	4.2	0.22	0.013	mg/Kg			10	6020
7440-23-5	Sodium	78	110	43	mg/Kg	J		10	6020
7440-28-0	Thallium	0.37	0.55	0.14	mg/Kg	J		10	6020
7440-62-2	Vanadium	63	0.77	0.52	mg/Kg			10	6020
7440-66-6	Zinc	60	0.77	1.2	mg/Kg			10	6020
7439-97-6	Mercury	0.70	0.16	0.051	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PUSHER S-3 0-6 | Lab Sample ID: 580-29110-5

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/27/2011 12:20

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 97.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1200	170	16	mg/Kg			1	6010B
7440-70-2	Calcium	570	55	3.1	mg/Kg		B	1	6010B
7439-89-6	Iron	75000	1000	61	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3800	55	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	5700	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	3.2	2.0	0.42	mg/Kg			100	6020
7440-38-2	Arsenic	5100	5.0	1.8	mg/Kg			100	6020
7440-39-3	Barium	31	0.20	0.030	mg/Kg			10	6020
7440-41-7	Beryllium	0.041	0.20	0.022	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.086	0.20	0.0080	mg/Kg	J		10	6020
7440-47-3	Chromium	4.8	0.20	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	5.0	0.20	0.019	mg/Kg			10	6020
7440-50-8	Copper	280	0.20	0.098	mg/Kg			10	6020
7439-92-1	Lead	13	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	220	5.0	1.7	mg/Kg			100	6020
7440-02-0	Nickel	1.5	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	6.6	0.70	0.20	mg/Kg			10	6020
7440-22-4	Silver	2.9	0.20	0.012	mg/Kg			10	6020
7440-23-5	Sodium	86	100	39	mg/Kg	J		10	6020
7440-28-0	Thallium	0.17	0.50	0.13	mg/Kg	J		10	6020
7440-62-2	Vanadium	44	0.70	0.48	mg/Kg			10	6020
7440-66-6	Zinc	31	0.70	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.095	0.015	0.0048	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PUSHER S-3 6-12 | Lab Sample ID: 580-29110-6

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/27/2011 12:25

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 77.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1200	200	19	mg/Kg			1	6010B
7440-70-2	Calcium	630	67	3.7	mg/Kg		B	1	6010B
7439-89-6	Iron	78000	1200	74	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3000	67	3.9	mg/Kg			1	6010B
7429-90-5	Aluminum	6100	36	3.6	mg/Kg			10	6020
7440-36-0	Antimony	4.3	2.4	0.51	mg/Kg			100	6020
7440-38-2	Arsenic	6700	6.0	2.2	mg/Kg			100	6020
7440-39-3	Barium	28	0.24	0.036	mg/Kg			10	6020
7440-41-7	Beryllium	0.054	0.24	0.027	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.15	0.24	0.0097	mg/Kg	J		10	6020
7440-47-3	Chromium	6.8	0.24	0.14	mg/Kg			10	6020
7440-48-4	Cobalt	7.1	0.24	0.023	mg/Kg			10	6020
7440-50-8	Copper	700	0.24	0.12	mg/Kg			10	6020
7439-92-1	Lead	21	0.24	0.016	mg/Kg			10	6020
7439-96-5	Manganese	220	6.0	2.1	mg/Kg			100	6020
7440-02-0	Nickel	1.5	0.24	0.25	mg/Kg			10	6020
7782-49-2	Selenium	8.7	0.85	0.24	mg/Kg			10	6020
7440-22-4	Silver	2.9	0.24	0.015	mg/Kg			10	6020
7440-23-5	Sodium	85	120	47	mg/Kg	J		10	6020
7440-28-0	Thallium	0.24	0.60	0.16	mg/Kg	J		10	6020
7440-62-2	Vanadium	38	0.85	0.57	mg/Kg			10	6020
7440-66-6	Zinc	31	0.85	1.4	mg/Kg			10	6020
7439-97-6	Mercury	0.23	0.19	0.061	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: IBEX S1 0-6 | Lab Sample ID: 580-29110-7

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/28/2011 14:30

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 96.7

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	490	140	14	mg/Kg			1	6010B
7440-70-2	Calcium	4200	48	2.7	mg/Kg		B	1	6010B
7439-89-6	Iron	85000	870	53	mg/Kg		B	100	6010B
7439-95-4	Magnesium	2000	48	2.8	mg/Kg			1	6010B
7429-90-5	Aluminum	5000	26	2.6	mg/Kg			10	6020
7440-36-0	Antimony	110	1.7	0.36	mg/Kg			100	6020
7440-38-2	Arsenic	4600	4.3	1.6	mg/Kg			100	6020
7440-39-3	Barium	51	0.17	0.026	mg/Kg			10	6020
7440-41-7	Beryllium	0.57	0.17	0.019	mg/Kg			10	6020
7440-43-9	Cadmium	5.0	0.17	0.0069	mg/Kg			10	6020
7440-47-3	Chromium	3.3	0.17	0.098	mg/Kg			10	6020
7440-48-4	Cobalt	26	0.17	0.017	mg/Kg			10	6020
7440-50-8	Copper	56	0.17	0.085	mg/Kg			10	6020
7439-92-1	Lead	360	0.17	0.011	mg/Kg			10	6020
7439-96-5	Manganese	10000	4.3	1.5	mg/Kg			100	6020
7440-02-0	Nickel	2.7	0.17	0.18	mg/Kg			10	6020
7782-49-2	Selenium	1.1	0.61	0.18	mg/Kg			10	6020
7440-22-4	Silver	9.2	0.17	0.010	mg/Kg			10	6020
7440-23-5	Sodium	72	87	34	mg/Kg	J		10	6020
7440-28-0	Thallium	0.93	0.43	0.11	mg/Kg			10	6020
7440-62-2	Vanadium	82	0.61	0.41	mg/Kg			10	6020
7440-66-6	Zinc	510	0.61	0.97	mg/Kg			10	6020
7439-97-6	Mercury	0.90	0.16	0.051	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: IBEX S2 0-6 | Lab Sample ID: 580-29110-8

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/28/2011 14:40

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 98.2

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	88	140	14	mg/Kg	J		1	6010B
7440-70-2	Calcium	240	48	2.7	mg/Kg		B	1	6010B
7439-89-6	Iron	11000	870	53	mg/Kg		B	100	6010B
7439-95-4	Magnesium	420	48	2.8	mg/Kg			1	6010B
7429-90-5	Aluminum	5500	26	2.6	mg/Kg			10	6020
7440-36-0	Antimony	3.9	1.7	0.37	mg/Kg			100	6020
7440-38-2	Arsenic	89	4.4	1.6	mg/Kg			100	6020
7440-39-3	Barium	7.0	0.17	0.026	mg/Kg			10	6020
7440-41-7	Beryllium	0.060	0.17	0.019	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.20	0.17	0.0070	mg/Kg			10	6020
7440-47-3	Chromium	2.5	0.17	0.098	mg/Kg			10	6020
7440-48-4	Cobalt	1.7	0.17	0.017	mg/Kg			10	6020
7440-50-8	Copper	4.1	0.17	0.085	mg/Kg			10	6020
7439-92-1	Lead	18	0.17	0.011	mg/Kg			10	6020
7439-96-5	Manganese	170	4.4	1.5	mg/Kg			100	6020
7440-02-0	Nickel	1.3	0.17	0.18	mg/Kg			10	6020
7782-49-2	Selenium	0.29	0.61	0.18	mg/Kg	J		10	6020
7440-22-4	Silver	0.52	0.17	0.010	mg/Kg			10	6020
7440-23-5	Sodium	61	87	34	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.44	0.11	mg/Kg			10	6020
7440-62-2	Vanadium	33	0.61	0.41	mg/Kg			10	6020
7440-66-6	Zinc	22	0.61	0.98	mg/Kg			10	6020
7439-97-6	Mercury	0.054	0.015	0.0047	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: O+B UPPER S1 0-6 Lab Sample ID: 580-29110-9

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 15:00

Reporting Basis: DRY Date Received: 10/05/2011 16:35

% Solids: 95.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	330	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	460	55	3.1	mg/Kg		B	1	6010B
7439-89-6	Iron	150000	1000	61	mg/Kg		B	100	6010B
7439-95-4	Magnesium	200	55	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	2600	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	28	2.0	0.42	mg/Kg			100	6020
7440-38-2	Arsenic	52000	50	18	mg/Kg			1000	6020
7440-39-3	Barium	17	0.20	0.030	mg/Kg			10	6020
7440-41-7	Beryllium	0.069	0.20	0.022	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.53	0.20	0.0080	mg/Kg			10	6020
7440-47-3	Chromium	1.7	0.20	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	78	0.20	0.019	mg/Kg			10	6020
7440-50-8	Copper	1700	0.20	0.098	mg/Kg			10	6020
7439-92-1	Lead	1000	0.20	0.013	mg/Kg			10	6020
7439-96-5	Manganese	320	5.0	1.7	mg/Kg			100	6020
7440-02-0	Nickel	9.2	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	2.5	0.70	0.20	mg/Kg			10	6020
7440-22-4	Silver	70	0.20	0.012	mg/Kg			10	6020
7440-23-5	Sodium	ND	100	39	mg/Kg			10	6020
7440-28-0	Thallium	0.15	0.50	0.13	mg/Kg	J		10	6020
7440-62-2	Vanadium	13	0.70	0.47	mg/Kg			10	6020
7440-66-6	Zinc	140	0.70	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.43	0.11	0.035	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: O+B UPPER S2 0-6 Lab Sample ID: 580-29110-10

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 15:25

Reporting Basis: DRY Date Received: 10/05/2011 16:35

% Solids: 93.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	130	160	15	mg/Kg	J		1	6010B
7440-70-2	Calcium	2300	52	3.0	mg/Kg		B	1	6010B
7439-89-6	Iron	200000	950	58	mg/Kg		B	100	6010B
7439-95-4	Magnesium	1100	52	3.0	mg/Kg			1	6010B
7429-90-5	Aluminum	6700	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	11	1.9	0.40	mg/Kg			100	6020
7440-38-2	Arsenic	32000	48	17	mg/Kg			1000	6020
7440-39-3	Barium	110	0.19	0.029	mg/Kg			10	6020
7440-41-7	Beryllium	0.21	0.19	0.021	mg/Kg			10	6020
7440-43-9	Cadmium	2.0	0.19	0.0076	mg/Kg			10	6020
7440-47-3	Chromium	5.3	0.19	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	66	0.19	0.018	mg/Kg			10	6020
7440-50-8	Copper	910	0.19	0.093	mg/Kg			10	6020
7439-92-1	Lead	400	0.19	0.012	mg/Kg			10	6020
7439-96-5	Manganese	2100	4.8	1.6	mg/Kg			100	6020
7440-02-0	Nickel	18	0.19	0.19	mg/Kg			10	6020
7782-49-2	Selenium	2.0	0.67	0.19	mg/Kg			10	6020
7440-22-4	Silver	31	0.19	0.011	mg/Kg			10	6020
7440-23-5	Sodium	ND	95	37	mg/Kg			10	6020
7440-28-0	Thallium	ND	0.48	0.12	mg/Kg			10	6020
7440-62-2	Vanadium	19	0.67	0.45	mg/Kg			10	6020
7440-66-6	Zinc	420	0.67	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.67	0.14	0.045	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: O+B UPPER S3 0-6 Lab Sample ID: 580-29110-11

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 15:40

Reporting Basis: DRY Date Received: 10/05/2011 16:35

% Solids: 96.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	640	140	13	mg/Kg			1	6010B
7440-70-2	Calcium	580	46	2.6	mg/Kg		B	1	6010B
7439-89-6	Iron	130000	830	51	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3200	46	2.7	mg/Kg			1	6010B
7429-90-5	Aluminum	12000	25	2.5	mg/Kg			10	6020
7440-36-0	Antimony	12	1.7	0.35	mg/Kg			100	6020
7440-38-2	Arsenic	20000	42	15	mg/Kg			1000	6020
7440-39-3	Barium	59	0.17	0.025	mg/Kg			10	6020
7440-41-7	Beryllium	0.094	0.17	0.018	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.54	0.17	0.0067	mg/Kg			10	6020
7440-47-3	Chromium	4.5	0.17	0.094	mg/Kg			10	6020
7440-48-4	Cobalt	24	0.17	0.016	mg/Kg			10	6020
7440-50-8	Copper	520	0.17	0.082	mg/Kg			10	6020
7439-92-1	Lead	1200	0.17	0.011	mg/Kg			10	6020
7439-96-5	Manganese	1200	4.2	1.4	mg/Kg			100	6020
7440-02-0	Nickel	6.9	0.17	0.17	mg/Kg			10	6020
7782-49-2	Selenium	0.93	0.58	0.17	mg/Kg			10	6020
7440-22-4	Silver	34	0.17	0.010	mg/Kg			10	6020
7440-23-5	Sodium	ND	83	33	mg/Kg			10	6020
7440-28-0	Thallium	0.16	0.42	0.11	mg/Kg	J		10	6020
7440-62-2	Vanadium	23	0.58	0.39	mg/Kg			10	6020
7440-66-6	Zinc	120	0.58	0.93	mg/Kg			10	6020
7439-97-6	Mercury	1.0	0.13	0.040	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: O+B LOWER S1 0-6 Lab Sample ID: 580-29110-12

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 16:20

Reporting Basis: DRY Date Received: 10/05/2011 16:35

% Solids: 97.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1700	130	13	mg/Kg			1	6010B
7440-70-2	Calcium	300	44	2.5	mg/Kg		B	1	6010B
7439-89-6	Iron	81000	800	49	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3400	44	2.5	mg/Kg			1	6010B
7429-90-5	Aluminum	13000	24	2.4	mg/Kg			10	6020
7440-36-0	Antimony	2.0	1.6	0.33	mg/Kg			100	6020
7440-38-2	Arsenic	4200	4.0	1.4	mg/Kg			100	6020
7440-39-3	Barium	85	0.16	0.024	mg/Kg			10	6020
7440-41-7	Beryllium	0.11	0.16	0.018	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.70	0.16	0.0064	mg/Kg			10	6020
7440-47-3	Chromium	4.7	0.16	0.090	mg/Kg			10	6020
7440-48-4	Cobalt	6.3	0.16	0.015	mg/Kg			10	6020
7440-50-8	Copper	190	0.16	0.078	mg/Kg			10	6020
7439-92-1	Lead	970	0.16	0.010	mg/Kg			10	6020
7439-96-5	Manganese	1100	4.0	1.4	mg/Kg			100	6020
7440-02-0	Nickel	8.1	0.16	0.16	mg/Kg			10	6020
7782-49-2	Selenium	0.55	0.56	0.16	mg/Kg	J		10	6020
7440-22-4	Silver	8.4	0.16	0.0096	mg/Kg			10	6020
7440-23-5	Sodium	66	80	31	mg/Kg	J		10	6020
7440-28-0	Thallium	0.28	0.40	0.10	mg/Kg	J		10	6020
7440-62-2	Vanadium	17	0.56	0.38	mg/Kg			10	6020
7440-66-6	Zinc	150	0.56	0.89	mg/Kg			10	6020
7439-97-6	Mercury	1.0	0.14	0.044	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: O+B LOWER S2 0-6 Lab Sample ID: 580-29110-13

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 16:45

Reporting Basis: DRY Date Received: 10/05/2011 16:35

% Solids: 96.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	740	140	13	mg/Kg			1	6010B
7440-70-2	Calcium	670	46	2.6	mg/Kg		B	1	6010B
7439-89-6	Iron	96000	840	51	mg/Kg		B	100	6010B
7439-95-4	Magnesium	2200	46	2.7	mg/Kg			1	6010B
7429-90-5	Aluminum	7200	25	2.5	mg/Kg			10	6020
7440-36-0	Antimony	24	1.7	0.35	mg/Kg			100	6020
7440-38-2	Arsenic	32000	42	15	mg/Kg			1000	6020
7440-39-3	Barium	29	0.17	0.025	mg/Kg			10	6020
7440-41-7	Beryllium	0.19	0.17	0.018	mg/Kg			10	6020
7440-43-9	Cadmium	0.95	0.17	0.0067	mg/Kg			10	6020
7440-47-3	Chromium	3.6	0.17	0.095	mg/Kg			10	6020
7440-48-4	Cobalt	44	0.17	0.016	mg/Kg			10	6020
7440-50-8	Copper	340	0.17	0.082	mg/Kg			10	6020
7439-92-1	Lead	640	0.17	0.011	mg/Kg			10	6020
7439-96-5	Manganese	1400	4.2	1.4	mg/Kg			100	6020
7440-02-0	Nickel	10	0.17	0.17	mg/Kg			10	6020
7782-49-2	Selenium	1.8	0.59	0.17	mg/Kg			10	6020
7440-22-4	Silver	39	0.17	0.010	mg/Kg			10	6020
7440-23-5	Sodium	ND	84	33	mg/Kg			10	6020
7440-28-0	Thallium	0.18	0.42	0.11	mg/Kg	J		10	6020
7440-62-2	Vanadium	13	0.59	0.40	mg/Kg			10	6020
7440-66-6	Zinc	150	0.59	0.94	mg/Kg			10	6020
7439-97-6	Mercury	0.57	0.14	0.044	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-7 | Lab Sample ID: 580-29110-14

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/29/2011 16:50

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 87.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	42	170	17	mg/Kg	J		1	6010B
7440-70-2	Calcium	82	57	3.2	mg/Kg		B	1	6010B
7439-89-6	Iron	2300	10	0.64	mg/Kg		B	1	6010B
7439-95-4	Magnesium	48	57	3.3	mg/Kg	J		1	6010B
7429-90-5	Aluminum	560	31	3.1	mg/Kg			10	6020
7440-36-0	Antimony	0.096	0.21	0.044	mg/Kg	J		10	6020
7440-38-2	Arsenic	1.5	0.52	0.19	mg/Kg			10	6020
7440-39-3	Barium	2.9	0.21	0.031	mg/Kg			10	6020
7440-41-7	Beryllium	ND	0.21	0.023	mg/Kg			10	6020
7440-43-9	Cadmium	0.051	0.21	0.0084	mg/Kg	J		10	6020
7440-47-3	Chromium	0.90	0.21	0.12	mg/Kg			10	6020
7440-48-4	Cobalt	0.56	0.21	0.020	mg/Kg			10	6020
7440-50-8	Copper	1.1	0.21	0.10	mg/Kg			10	6020
7439-92-1	Lead	1.0	0.21	0.014	mg/Kg			10	6020
7439-96-5	Manganese	10	0.52	0.18	mg/Kg			10	6020
7440-02-0	Nickel	0.68	0.21	0.21	mg/Kg			10	6020
7782-49-2	Selenium	ND	0.73	0.21	mg/Kg			10	6020
7440-22-4	Silver	0.13	0.21	0.013	mg/Kg	J		10	6020
7440-23-5	Sodium	89	100	41	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.52	0.14	mg/Kg			10	6020
7440-62-2	Vanadium	7.0	0.73	0.49	mg/Kg			10	6020
7440-66-6	Zinc	4.8	0.73	1.2	mg/Kg			10	6020
7439-97-6	Mercury	ND	0.18	0.057	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: 76-8 | Lab Sample ID: 580-29110-15

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/29/2011 16:37

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 65.9

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	180	250	24	mg/Kg	J		1	6010B
7440-70-2	Calcium	900	82	4.6	mg/Kg		B	1	6010B
7439-89-6	Iron	15000	1500	91	mg/Kg		B	100	6010B
7439-95-4	Magnesium	740	82	4.8	mg/Kg			1	6010B
7429-90-5	Aluminum	6900	45	4.5	mg/Kg			10	6020
7440-36-0	Antimony	0.77	0.30	0.063	mg/Kg			10	6020
7440-38-2	Arsenic	48	0.75	0.27	mg/Kg			10	6020
7440-39-3	Barium	16	0.30	0.045	mg/Kg			10	6020
7440-41-7	Beryllium	0.17	0.30	0.033	mg/Kg	J		10	6020
7440-43-9	Cadmium	0.25	0.30	0.012	mg/Kg	J		10	6020
7440-47-3	Chromium	4.5	0.30	0.17	mg/Kg			10	6020
7440-48-4	Cobalt	2.8	0.30	0.028	mg/Kg			10	6020
7440-50-8	Copper	16	0.30	0.15	mg/Kg			10	6020
7439-92-1	Lead	24	0.30	0.019	mg/Kg			10	6020
7439-96-5	Manganese	95	0.75	0.25	mg/Kg			10	6020
7440-02-0	Nickel	3.5	0.30	0.30	mg/Kg			10	6020
7782-49-2	Selenium	0.65	1.0	0.30	mg/Kg	J		10	6020
7440-22-4	Silver	0.46	0.30	0.018	mg/Kg			10	6020
7440-23-5	Sodium	84	150	59	mg/Kg	J		10	6020
7440-28-0	Thallium	ND	0.75	0.19	mg/Kg			10	6020
7440-62-2	Vanadium	23	1.0	0.71	mg/Kg			10	6020
7440-66-6	Zinc	29	1.0	1.7	mg/Kg			10	6020
7439-97-6	Mercury	0.11	0.024	0.0077	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CONGRESS S1 0-6 | Lab Sample ID: 580-29110-16

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/29/2011 13:40

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 85.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	860	180	17	mg/Kg			1	6010B
7440-70-2	Calcium	4700	60	3.4	mg/Kg		B	1	6010B
7439-89-6	Iron	57000	1100	67	mg/Kg		B	100	6010B
7439-95-4	Magnesium	2800	60	3.5	mg/Kg			1	6010B
7429-90-5	Aluminum	11000	33	3.3	mg/Kg			10	6020
7440-36-0	Antimony	30	2.2	0.46	mg/Kg			100	6020
7440-38-2	Arsenic	2200	5.5	2.0	mg/Kg			100	6020
7440-39-3	Barium	31	0.22	0.033	mg/Kg			10	6020
7440-41-7	Beryllium	0.50	0.22	0.024	mg/Kg			10	6020
7440-43-9	Cadmium	12	0.22	0.0087	mg/Kg			10	6020
7440-47-3	Chromium	5.6	0.22	0.12	mg/Kg			10	6020
7440-48-4	Cobalt	24	0.22	0.021	mg/Kg			10	6020
7440-50-8	Copper	150	0.22	0.11	mg/Kg			10	6020
7439-92-1	Lead	1100	0.22	0.014	mg/Kg			10	6020
7439-96-5	Manganese	5400	5.5	1.9	mg/Kg			100	6020
7440-02-0	Nickel	21	0.22	0.22	mg/Kg			10	6020
7782-49-2	Selenium	1.3	0.76	0.22	mg/Kg			10	6020
7440-22-4	Silver	6.9	0.22	0.013	mg/Kg			10	6020
7440-23-5	Sodium	50	110	43	mg/Kg	J		10	6020
7440-28-0	Thallium	0.35	0.55	0.14	mg/Kg	J		10	6020
7440-62-2	Vanadium	32	0.76	0.52	mg/Kg			10	6020
7440-66-6	Zinc	1500	0.76	1.2	mg/Kg			10	6020
7439-97-6	Mercury	0.32	0.19	0.059	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CONGRESS S1 6-12 | Lab Sample ID: 580-29110-17

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/29/2011 13:50

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 85.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	950	190	18	mg/Kg			1	6010B
7440-70-2	Calcium	4700	62	3.5	mg/Kg		B	1	6010B
7439-89-6	Iron	57000	1100	69	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3000	62	3.6	mg/Kg			1	6010B
7429-90-5	Aluminum	10000	34	3.4	mg/Kg			10	6020
7440-36-0	Antimony	34	2.3	0.47	mg/Kg			100	6020
7440-38-2	Arsenic	2900	5.6	2.0	mg/Kg			100	6020
7440-39-3	Barium	29	0.23	0.034	mg/Kg			10	6020
7440-41-7	Beryllium	0.45	0.23	0.025	mg/Kg			10	6020
7440-43-9	Cadmium	9.1	0.23	0.0090	mg/Kg			10	6020
7440-47-3	Chromium	5.8	0.23	0.13	mg/Kg			10	6020
7440-48-4	Cobalt	23	0.23	0.021	mg/Kg			10	6020
7440-50-8	Copper	150	0.23	0.11	mg/Kg			10	6020
7439-92-1	Lead	3400	2.3	0.15	mg/Kg			100	6020
7439-96-5	Manganese	4500	5.6	1.9	mg/Kg			100	6020
7440-02-0	Nickel	17	0.23	0.23	mg/Kg			10	6020
7782-49-2	Selenium	1.4	0.79	0.23	mg/Kg			10	6020
7440-22-4	Silver	16	0.23	0.014	mg/Kg			10	6020
7440-23-5	Sodium	56	110	44	mg/Kg	J		10	6020
7440-28-0	Thallium	0.35	0.56	0.15	mg/Kg	J		10	6020
7440-62-2	Vanadium	31	0.79	0.53	mg/Kg			10	6020
7440-66-6	Zinc	1500	0.79	1.3	mg/Kg			10	6020
7439-97-6	Mercury	0.73	0.19	0.060	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PORTLAND 2 S1 0-6 Lab Sample ID: 580-29110-18

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 14:05

Reporting Basis: DRY Date Received: 10/05/2011 16:35

% Solids: 96.0

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1300	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	1900	54	3.1	mg/Kg			1	6010B
7439-89-6	Iron	56000	980	60	mg/Kg		B	100	6010B
7439-95-4	Magnesium	4700	54	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	9100	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	29	0.98	0.21	mg/Kg			50	6020
7440-38-2	Arsenic	1200	2.5	0.89	mg/Kg			50	6020
7440-39-3	Barium	50	0.20	0.030	mg/Kg			10	6020
7440-41-7	Beryllium	0.20	0.20	0.022	mg/Kg			10	6020
7440-43-9	Cadmium	9.6	0.20	0.0079	mg/Kg			10	6020
7440-47-3	Chromium	9.5	0.20	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	36	0.20	0.019	mg/Kg			10	6020
7440-50-8	Copper	230	0.20	0.096	mg/Kg			10	6020
7439-92-1	Lead	430	0.20	0.013	mg/Kg		B	10	6020
7439-96-5	Manganese	9600	2.5	0.84	mg/Kg			50	6020
7440-02-0	Nickel	9.7	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	0.52	0.69	0.20	mg/Kg	J		10	6020
7440-22-4	Silver	3.9	0.20	0.012	mg/Kg			10	6020
7440-23-5	Sodium	350	98	39	mg/Kg			10	6020
7440-28-0	Thallium	0.38	0.49	0.13	mg/Kg	J		10	6020
7440-62-2	Vanadium	59	0.69	0.47	mg/Kg			10	6020
7440-66-6	Zinc	830	0.69	1.1	mg/Kg			10	6020
7439-97-6	Mercury	1.2	0.16	0.051	mg/Kg			10	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PORTLAND 2 S1 6-12 | Lab Sample ID: 580-29110-19

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/29/2011 14:15

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 98.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1000	150	14	mg/Kg			1	6010B
7440-70-2	Calcium	1900	49	2.7	mg/Kg			1	6010B
7439-89-6	Iron	63000	880	54	mg/Kg		B	100	6010B
7439-95-4	Magnesium	5100	49	2.8	mg/Kg			1	6010B
7429-90-5	Aluminum	9100	27	2.7	mg/Kg			10	6020
7440-36-0	Antimony	32	1.8	0.37	mg/Kg			100	6020
7440-38-2	Arsenic	900	4.4	1.6	mg/Kg			100	6020
7440-39-3	Barium	46	0.18	0.027	mg/Kg			10	6020
7440-41-7	Beryllium	0.25	0.18	0.019	mg/Kg			10	6020
7440-43-9	Cadmium	16	0.18	0.0071	mg/Kg			10	6020
7440-47-3	Chromium	9.4	0.18	0.10	mg/Kg			10	6020
7440-48-4	Cobalt	28	0.18	0.017	mg/Kg			10	6020
7440-50-8	Copper	270	0.18	0.087	mg/Kg			10	6020
7439-92-1	Lead	370	0.18	0.011	mg/Kg		B	10	6020
7439-96-5	Manganese	11000	4.4	1.5	mg/Kg			100	6020
7440-02-0	Nickel	10	0.18	0.18	mg/Kg			10	6020
7782-49-2	Selenium	0.71	0.62	0.18	mg/Kg			10	6020
7440-22-4	Silver	3.8	0.18	0.011	mg/Kg			10	6020
7440-23-5	Sodium	270	88	35	mg/Kg			10	6020
7440-28-0	Thallium	0.32	0.44	0.11	mg/Kg	J		10	6020
7440-62-2	Vanadium	58	0.62	0.42	mg/Kg			10	6020
7440-66-6	Zinc	940	0.62	0.99	mg/Kg			10	6020
7439-97-6	Mercury	0.098	0.015	0.0047	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PORTLAND 2 S2 0-6 Lab Sample ID: 580-29110-20

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 14:45

Reporting Basis: DRY Date Received: 10/05/2011 16:35

% Solids: 98.6

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	820	160	15	mg/Kg			1	6010B
7440-70-2	Calcium	3100	53	3.0	mg/Kg			1	6010B
7439-89-6	Iron	21000	960	59	mg/Kg		B	100	6010B
7439-95-4	Magnesium	5100	53	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	14000	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	5.0	1.9	0.40	mg/Kg			100	6020
7440-38-2	Arsenic	590	4.8	1.7	mg/Kg			100	6020
7440-39-3	Barium	43	0.19	0.029	mg/Kg			10	6020
7440-41-7	Beryllium	0.15	0.19	0.021	mg/Kg	J		10	6020
7440-43-9	Cadmium	2.4	0.19	0.0077	mg/Kg			10	6020
7440-47-3	Chromium	5.4	0.19	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	13	0.19	0.018	mg/Kg			10	6020
7440-50-8	Copper	170	0.19	0.094	mg/Kg			10	6020
7439-92-1	Lead	66	0.19	0.012	mg/Kg		B	10	6020
7439-96-5	Manganese	1100	4.8	1.6	mg/Kg			100	6020
7440-02-0	Nickel	7.1	0.19	0.20	mg/Kg			10	6020
7782-49-2	Selenium	0.49	0.67	0.19	mg/Kg	J		10	6020
7440-22-4	Silver	0.66	0.19	0.012	mg/Kg			10	6020
7440-23-5	Sodium	420	96	38	mg/Kg			10	6020
7440-28-0	Thallium	0.12	0.48	0.12	mg/Kg	J		10	6020
7440-62-2	Vanadium	38	0.67	0.45	mg/Kg			10	6020
7440-66-6	Zinc	670	0.67	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.14	0.012	0.0037	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CONGRESS S2 0-6 | Lab Sample ID: 580-29110-21

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/29/2011 14:50

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 98.1

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1100	160	15	mg/Kg			1	6010B
7440-70-2	Calcium	1400	53	3.0	mg/Kg			1	6010B
7439-89-6	Iron	41000	960	59	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3400	53	3.1	mg/Kg			1	6010B
7429-90-5	Aluminum	8000	29	2.9	mg/Kg			10	6020
7440-36-0	Antimony	28	1.9	0.40	mg/Kg			100	6020
7440-38-2	Arsenic	1400	4.8	1.7	mg/Kg			100	6020
7440-39-3	Barium	35	0.19	0.029	mg/Kg			10	6020
7440-41-7	Beryllium	0.36	0.19	0.021	mg/Kg			10	6020
7440-43-9	Cadmium	4.3	0.19	0.0077	mg/Kg			10	6020
7440-47-3	Chromium	6.9	0.19	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	23	0.19	0.018	mg/Kg			10	6020
7440-50-8	Copper	93	0.19	0.094	mg/Kg			10	6020
7439-92-1	Lead	1000	0.19	0.013	mg/Kg		B	10	6020
7439-96-5	Manganese	3600	4.8	1.6	mg/Kg			100	6020
7440-02-0	Nickel	14	0.19	0.20	mg/Kg			10	6020
7782-49-2	Selenium	1.1	0.67	0.19	mg/Kg			10	6020
7440-22-4	Silver	10	0.19	0.012	mg/Kg			10	6020
7440-23-5	Sodium	54	96	38	mg/Kg	J		10	6020
7440-28-0	Thallium	0.29	0.48	0.13	mg/Kg	J		10	6020
7440-62-2	Vanadium	29	0.67	0.45	mg/Kg			10	6020
7440-66-6	Zinc	690	0.67	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.028	0.016	0.0050	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: CONGRESS S2 6-12 | Lab Sample ID: 580-29110-22

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/29/2011 15:00

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 97.4

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	1300	160	16	mg/Kg			1	6010B
7440-70-2	Calcium	1800	54	3.1	mg/Kg			1	6010B
7439-89-6	Iron	42000	990	60	mg/Kg		B	100	6010B
7439-95-4	Magnesium	3800	54	3.2	mg/Kg			1	6010B
7429-90-5	Aluminum	9100	30	3.0	mg/Kg			10	6020
7440-36-0	Antimony	48	2.0	0.41	mg/Kg			100	6020
7440-38-2	Arsenic	1400	4.9	1.8	mg/Kg			100	6020
7440-39-3	Barium	38	0.20	0.030	mg/Kg			10	6020
7440-41-7	Beryllium	0.37	0.20	0.022	mg/Kg			10	6020
7440-43-9	Cadmium	4.7	0.20	0.0079	mg/Kg			10	6020
7440-47-3	Chromium	7.2	0.20	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	24	0.20	0.019	mg/Kg			10	6020
7440-50-8	Copper	120	0.20	0.097	mg/Kg			10	6020
7439-92-1	Lead	1200	0.20	0.013	mg/Kg		B	10	6020
7439-96-5	Manganese	3600	4.9	1.7	mg/Kg			100	6020
7440-02-0	Nickel	15	0.20	0.20	mg/Kg			10	6020
7782-49-2	Selenium	1.2	0.69	0.20	mg/Kg			10	6020
7440-22-4	Silver	6.2	0.20	0.012	mg/Kg			10	6020
7440-23-5	Sodium	76	99	39	mg/Kg	J		10	6020
7440-28-0	Thallium	0.30	0.49	0.13	mg/Kg	J		10	6020
7440-62-2	Vanadium	32	0.69	0.47	mg/Kg			10	6020
7440-66-6	Zinc	820	0.69	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.028	0.017	0.0053	mg/Kg			1	7471A

1A-IN
INORGANIC ANALYSIS DATA SHEET
METALS

Client Sample ID: PORTLAND 2 S2 6-12 | Lab Sample ID: 580-29110-23

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/29/2011 15:00

Reporting Basis: DRY | Date Received: 10/05/2011 16:35

% Solids: 97.8

CAS No.	Analyte	Result	RL	MDL	Units	C	Q	DIL	Method
7440-09-7	Potassium	840	150	15	mg/Kg			1	6010B
7440-70-2	Calcium	3700	52	2.9	mg/Kg			1	6010B
7439-89-6	Iron	21000	940	57	mg/Kg		B	100	6010B
7439-95-4	Magnesium	5300	52	3.0	mg/Kg			1	6010B
7429-90-5	Aluminum	16000	28	2.8	mg/Kg			10	6020
7440-36-0	Antimony	3.6	1.9	0.39	mg/Kg			100	6020
7440-38-2	Arsenic	520	4.7	1.7	mg/Kg			100	6020
7440-39-3	Barium	40	0.19	0.028	mg/Kg			10	6020
7440-41-7	Beryllium	0.17	0.19	0.021	mg/Kg	J		10	6020
7440-43-9	Cadmium	2.4	0.19	0.0075	mg/Kg			10	6020
7440-47-3	Chromium	6.1	0.19	0.11	mg/Kg			10	6020
7440-48-4	Cobalt	15	0.19	0.018	mg/Kg			10	6020
7440-50-8	Copper	180	0.19	0.092	mg/Kg			10	6020
7439-92-1	Lead	68	0.19	0.012	mg/Kg		B	10	6020
7439-96-5	Manganese	810	4.7	1.6	mg/Kg			100	6020
7440-02-0	Nickel	7.5	0.19	0.19	mg/Kg			10	6020
7782-49-2	Selenium	0.56	0.66	0.19	mg/Kg	J		10	6020
7440-22-4	Silver	0.69	0.19	0.011	mg/Kg			10	6020
7440-23-5	Sodium	480	94	37	mg/Kg			10	6020
7440-28-0	Thallium	0.12	0.47	0.12	mg/Kg	J		10	6020
7440-62-2	Vanadium	42	0.66	0.44	mg/Kg			10	6020
7440-66-6	Zinc	650	0.66	1.1	mg/Kg			10	6020
7439-97-6	Mercury	0.15	0.017	0.0053	mg/Kg			1	7471A

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICP ICV-2_00018 Concentration Units: mg/L

CCV Source: ICP CCV_00034

Analyte	ICV 580-98286/6 10/19/2011 15:08				CCV 580-98286/11 10/19/2011 19:43				CCV 580-98286/23 10/19/2011 20:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Potassium	14.7		15.0	98	18.3		20.0	92	20.5		20.0	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICP ICV-2_00018 Concentration Units: mg/L

CCV Source: ICP CCV_00034

Analyte	CCV 580-98286/34 10/19/2011 21:55				CCV 580-98286/43 10/19/2011 22:48				CCV 580-98286/55 10/19/2011 23:56			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Potassium	19.5		20.0	97	20.0		20.0	100	19.3		20.0	97

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICP ICV-2_00018 Concentration Units: mg/L

CCV Source: ICP CCV_00034

Analyte	CCV 580-98286/62 10/20/2011 00:37											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Potassium	19.7		20.0	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICP ICV-2_00018 Concentration Units: mg/L

CCV Source: ICP CCV_00034

Analyte	ICV 580-98052/6 10/18/2011 16:34				CCV 580-98052/11 10/18/2011 17:19				CCV 580-98052/23 10/18/2011 18:29			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5.22		5.00	104	20.1		20.0	100	20.3		20.0	101
Iron	4.95		5.00	99	9.99		10.0	100	10.0		10.0	100
Magnesium	5.13		5.00	103	20.7		20.0	103	20.1		20.0	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICP ICV-2_00018 Concentration Units: mg/L

CCV Source: ICP CCV_00034

Analyte	CCV 580-98052/35 10/18/2011 19:41				CCV 580-98052/47 10/18/2011 20:54				CCV 580-98052/59 10/18/2011 22:10			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	19.4		20.0	97	20.2		20.0	101	20.6		20.0	103
Iron	9.70		10.0	97	10.1		10.0	101	10.6		10.0	106
Magnesium	20.1		20.0	100	20.5		20.0	102	20.1		20.0	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICP ICV-2_00018 Concentration Units: mg/L

CCV Source: ICP CCV_00034

Analyte	CCV 580-98052/69 10/18/2011 23:12											
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	20.6		20.0	103								
Iron	10.8		10.0	108								
Magnesium	19.9		20.0	99								

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICP ICV-2_00018 Concentration Units: mg/L

CCV Source: ICP CCV_00034

Analyte	ICV 580-98054/6 10/18/2011 16:34				CCV 580-98054/11 10/19/2011 00:28				CCV 580-98054/23 10/19/2011 01:43			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	5.22		5.00	104	20.7		20.0	104	20.0		20.0	100
Iron	4.95		5.00	99	10.8		10.0	108	10.7		10.0	107
Magnesium	5.13		5.00	103	19.4		20.0	97	19.1		20.0	96

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICP ICV-2_00018 Concentration Units: mg/L

CCV Source: ICP CCV_00034

Analyte	CCV 580-98054/35 10/19/2011 02:58				CCV 580-98054/43 10/19/2011 03:51							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Calcium	20.4		20.0	102	19.9		20.0	99				
Iron	11.0		10.0	110	11.0		10.0	110				
Magnesium	19.4		20.0	97	18.9		20.0	95				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	ICV 580-98109/10 10/19/2011 10:54				CCV 580-98109/23 10/19/2011 11:34				CCV 580-98109/35 10/19/2011 12:12			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	0.0403		0.0400	101	0.0499		0.0500	100	0.0498		0.0500	100
Arsenic	0.0406		0.0400	101	0.0506		0.0500	101	0.0510		0.0500	102
Lead	0.0411		0.0400	103	0.0510		0.0500	102	0.0504		0.0500	101
Manganese	0.0407		0.0400	102	0.0504		0.0500	101	0.0512		0.0500	102
Aluminum	0.375		0.400	94	0.494		0.500	99	0.490		0.500	98
Barium	0.0394		0.0400	99	0.0497		0.0500	99	0.0493		0.0500	99
Beryllium	0.0402		0.0400	100	0.0488		0.0500	98	0.0486		0.0500	97
Cadmium	0.0399		0.0400	100	0.0499		0.0500	100	0.0501		0.0500	100
Chromium	0.0396		0.0400	99	0.0506		0.0500	101	0.0503		0.0500	101
Cobalt	0.0404		0.0400	101	0.0504		0.0500	101	0.0508		0.0500	102
Copper	0.0399		0.0400	100	0.0497		0.0500	99	0.0499		0.0500	100
Nickel	0.0401		0.0400	100	0.0504		0.0500	101	0.0505		0.0500	101
Selenium	0.0392		0.0400	98	0.0511		0.0500	102	0.0495		0.0500	99
Silver	0.0404		0.0400	101	0.0503		0.0500	101	0.0502		0.0500	100
Sodium	ND		4.00	101	ND		5.00	102	ND		5.00	99
Thallium	0.0404		0.0400	101	0.0500		0.0500	100	0.0501		0.0500	100
Vanadium	0.0400		0.0400	100	0.0504		0.0500	101	0.0501		0.0500	100
Zinc	0.0414		0.0400	103	0.0499		0.0500	100	0.0496		0.0500	99

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	CCV 580-98109/44 10/19/2011 12:50				CCV 580-98109/53 10/19/2011 13:27				CCV 580-98109/62 10/19/2011 14:05			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	0.0503		0.0500	101	0.0493		0.0500	99	0.0497		0.0500	99
Arsenic	0.0507		0.0500	101	0.0508		0.0500	102	0.0506		0.0500	101
Lead	0.0509		0.0500	102	0.0512		0.0500	102	0.0509		0.0500	102
Manganese	0.0507		0.0500	101	0.0505		0.0500	101	0.0507		0.0500	101
Aluminum	0.485		0.500	97	0.488		0.500	98	0.494		0.500	99
Barium	0.0488		0.0500	98	0.0489		0.0500	98	0.0495		0.0500	99
Beryllium	0.0486		0.0500	97	0.0488		0.0500	98	0.0482		0.0500	96
Cadmium	0.0501		0.0500	100	0.0501		0.0500	100	0.0498		0.0500	100
Chromium	0.0497		0.0500	99	0.0501		0.0500	100	0.0502		0.0500	100
Cobalt	0.0504		0.0500	101	0.0503		0.0500	101	0.0504		0.0500	101
Copper	0.0495		0.0500	99	0.0502		0.0500	100	0.0495		0.0500	99
Nickel	0.0506		0.0500	101	0.0511		0.0500	102	0.0501		0.0500	100
Selenium	0.0508		0.0500	102	0.0497		0.0500	99	0.0507		0.0500	101
Silver	0.0505		0.0500	101	0.0500		0.0500	100	0.0496		0.0500	99
Sodium	ND		5.00	99	ND		5.00	100	ND		5.00	102
Thallium	0.0504		0.0500	101	0.0506		0.0500	101	0.0496		0.0500	99
Vanadium	0.0493		0.0500	99	0.0502		0.0500	100	0.0500		0.0500	100
Zinc	0.0494		0.0500	99	0.0495		0.0500	99	0.0503		0.0500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	CCV 580-98109/74 10/19/2011 14:43				CCV 580-98109/85 10/19/2011 15:20							
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Antimony	0.0494		0.0500	99	0.0508		0.0500	102				
Arsenic	0.0507		0.0500	101	0.0500		0.0500	100				
Lead	0.0510		0.0500	102	0.0511		0.0500	102				
Manganese	0.0510		0.0500	102	0.0521		0.0500	104				
Aluminum	0.498		0.500	100	0.508		0.500	102				
Barium	0.0493		0.0500	99	0.0494		0.0500	99				
Beryllium	0.0484		0.0500	97	0.0476		0.0500	95				
Cadmium	0.0496		0.0500	99	0.0500		0.0500	100				
Chromium	0.0504		0.0500	101	0.0515		0.0500	103				
Cobalt	0.0502		0.0500	100	0.0512		0.0500	102				
Copper	0.0498		0.0500	100	0.0502		0.0500	100				
Nickel	0.0502		0.0500	100	0.0520		0.0500	104				
Selenium	0.0499		0.0500	100	0.0501		0.0500	100				
Silver	0.0499		0.0500	100	0.0508		0.0500	102				
Sodium	ND		5.00	100	ND		5.00	103				
Thallium	0.0510		0.0500	102	0.0495		0.0500	99				
Vanadium	0.0505		0.0500	101	0.0514		0.0500	103				
Zinc	0.0507		0.0500	101	0.0508		0.0500	102				

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	ICV 580-98033/7 10/18/2011 15:18				CCV 580-98033/12 10/18/2011 16:22				CCV 580-98033/18 10/18/2011 16:51			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.407		0.400	102	0.476		0.500	95	0.474		0.500	95
Barium	0.0399		0.0400	100	0.0493		0.0500	99	0.0500		0.0500	100
Beryllium	0.0392		0.0400	98	0.0500		0.0500	100	0.0495		0.0500	99
Cadmium	0.0398		0.0400	99	0.0486		0.0500	97	0.0504		0.0500	101
Chromium	0.0398		0.0400	99	0.0492		0.0500	98	0.0488		0.0500	98
Cobalt	0.0402		0.0400	100	0.0502		0.0500	100	0.0501		0.0500	100
Copper	0.0410		0.0400	102	0.0491		0.0500	98	0.0487		0.0500	97
Lead	0.0398		0.0400	100	0.0500		0.0500	100	0.0496		0.0500	99
Nickel	0.0405		0.0400	101	0.0486		0.0500	97	0.0482		0.0500	96
Selenium	0.0396		0.0400	99	0.0485		0.0500	97	0.0491		0.0500	98
Silver	0.0408		0.0400	102	0.0498		0.0500	100	0.0505		0.0500	101
Sodium	ND		4.00	100	ND		5.00	94	ND		5.00	95
Thallium	0.0400		0.0400	100	0.0497		0.0500	99	0.0496		0.0500	99
Vanadium	0.0396		0.0400	99	0.0489		0.0500	98	0.0485		0.0500	97
Zinc	0.0406		0.0400	102	0.0510		0.0500	102	0.0506		0.0500	101

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	CCV 580-98033/30 10/18/2011 17:49				CCV 580-98033/38 10/18/2011 18:28				CCV 580-98033/46 10/18/2011 19:06			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.473		0.500	95	0.479		0.500	96	0.469		0.500	94
Barium	0.0509		0.0500	102	0.0504		0.0500	101	0.0514		0.0500	103
Beryllium	0.0499		0.0500	100	0.0499		0.0500	100	0.0497		0.0500	99
Cadmium	0.0498		0.0500	100	0.0499		0.0500	100	0.0502		0.0500	100
Chromium	0.0503		0.0500	101	0.0493		0.0500	99	0.0496		0.0500	99
Cobalt	0.0514		0.0500	103	0.0504		0.0500	101	0.0505		0.0500	101
Copper	0.0480		0.0500	96	0.0489		0.0500	98	0.0487		0.0500	97
Lead	0.0496		0.0500	99	0.0490		0.0500	98	0.0499		0.0500	100
Nickel	0.0475		0.0500	95	0.0482		0.0500	96	0.0481		0.0500	96
Selenium	0.0481		0.0500	96	0.0480		0.0500	96	0.0488		0.0500	98
Silver	0.0504		0.0500	101	0.0506		0.0500	101	0.0504		0.0500	101
Sodium	ND		5.00	94	ND		5.00	95	ND		5.00	94
Thallium	0.0530		0.0500	106	0.0526		0.0500	105	0.0543		0.0500	109
Vanadium	0.0497		0.0500	99	0.0490		0.0500	98	0.0490		0.0500	98
Zinc	0.0505		0.0500	101	0.0507		0.0500	101	0.0508		0.0500	102

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: ICPMS_ICV_WOR_00010 Concentration Units: mg/L

CCV Source: ICPMS_CAL_WOR_00008

Analyte	CCV 580-98033/52 10/18/2011 19:35				CCV 580-98033/64 10/18/2011 20:33				CCV 580-98033/67 10/18/2011 20:48			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Aluminum	0.468		0.500	94	0.464		0.500	93	0.467		0.500	93
Barium	0.0509		0.0500	102	0.0507		0.0500	101	0.0503		0.0500	101
Beryllium	0.0506		0.0500	101	0.0501		0.0500	100	0.0497		0.0500	99
Cadmium	0.0498		0.0500	100	0.0495		0.0500	99	0.0497		0.0500	99
Chromium	0.0494		0.0500	99	0.0487		0.0500	97	0.0493		0.0500	99
Cobalt	0.0509		0.0500	102	0.0496		0.0500	99	0.0499		0.0500	100
Copper	0.0483		0.0500	97	0.0481		0.0500	96	0.0480		0.0500	96
Lead	0.0493		0.0500	99	0.0488		0.0500	98	0.0492		0.0500	98
Nickel	0.0479		0.0500	96	0.0475		0.0500	95	0.0478		0.0500	96
Selenium	0.0481		0.0500	96	0.0479		0.0500	96	0.0481		0.0500	96
Silver	0.0500		0.0500	100	0.0499		0.0500	100	0.0502		0.0500	100
Sodium	ND		5.00	94	ND		5.00	93	ND		5.00	93
Thallium	0.0533		0.0500	107	0.0531		0.0500	106	0.0534		0.0500	107
Vanadium	0.0491		0.0500	98	0.0482		0.0500	96	0.0488		0.0500	98
Zinc	0.0506		0.0500	101	0.0503		0.0500	101	0.0502		0.0500	100

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: Hg_ICV_WORK_00010 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00009

Analyte	ICV 580-98059/7 10/18/2011 14:41				CCV 580-98059/9 10/18/2011 14:47				CCV 580-98059/21 10/18/2011 15:11			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00410		0.00400	102	0.00510		0.00500	102	0.00514		0.00500	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: Hg_ICV_WORK_00010 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00009

Analyte	CCV 580-98059/31 10/18/2011 15:34				CCV 580-98059/36 10/18/2011 15:46				CCV 580-98059/42 10/18/2011 15:58			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00506		0.00500	101	0.00505		0.00500	101	0.00521		0.00500	104

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2A-IN
CALIBRATION VERIFICATIONS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICV Source: Hg_ICV_WORK_00010 Concentration Units: mg/L

CCV Source: Hg_CAL_WORK_00009

Analyte	CCV 580-98059/51 10/18/2011 16:20				CCV 580-98059/62 10/18/2011 16:43				CCV 580-98059/70 10/18/2011 16:59			
	Found	C	True	%R	Found	C	True	%R	Found	C	True	%R
Mercury	0.00520		0.00500	104	0.00485		0.00500	97	0.00515		0.00500	103

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.
Italicized analytes were not requested for this sequence.

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Method: 6010B Instrument ID: SEA027

Lab Sample ID: CRI 580-98286/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00021

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Potassium	3.30	2.73	J	83	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Method: 6010B Instrument ID: TAC047

Lab Sample ID: CRI 580-98052/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00021

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	1.10	1.17		106	50-150
Iron	0.200	0.205		102	50-150
Magnesium	1.10	1.19		108	50-150

Lab Sample ID: CRI 580-98054/8 Concentration Units: mg/L

CRQL Check Standard Source: ICP RL_00021

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Calcium	1.10	1.17		106	50-150
Iron	0.200	0.205		102	50-150
Magnesium	1.10	1.19		108	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Method: 6020 Instrument ID: SEA026

Lab Sample ID: CRI 580-98109/7 Concentration Units: mg/L

CRQL Check Standard Source: ICPMS_CAL_WOR_00008

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Aluminum	0.0200	ND		103	50-150
Antimony	0.00200	0.00198		99	50-150
Arsenic	0.00200	0.00197		98	50-150
Barium	0.00200	0.00198		99	50-150
Beryllium	0.00200	0.00185		92	50-150
Cadmium	0.00200	0.00196		98	50-150
Chromium	0.00200	0.00210		105	50-150
Cobalt	0.00200	0.00209		105	50-150
Copper	0.00200	0.00200		100	50-150
Lead	0.00200	0.00206		103	50-150
Manganese	0.00200	0.00206		103	50-150
Nickel	0.00200	0.00232	J	116	50-150
Selenium	0.00200	0.00208		104	50-150
Silver	0.00200	0.00201		100	50-150
Sodium	0.200	ND		94	50-150
Thallium	0.00200	0.00206		103	50-150
Vanadium	0.00200	0.00212		106	50-150
Zinc	0.00200	0.00203		101	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

2B-IN
CRQL CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Method: 6020 Instrument ID: SEA044

Lab Sample ID: CRI 580-98033/9 Concentration Units: mg/L

CRQL Check Standard Source: ICPMS_CAL_WOR_00008

Analyte	CRQL Check Standard				
	True	Found	Qualifiers	%R(1)	Limits
Aluminum	0.0200	ND		105	50-150
Barium	0.00200	0.00208		104	50-150
Beryllium	0.00200	0.00190		95	50-150
Cadmium	0.00200	0.00209		104	50-150
Chromium	0.00200	0.00209		104	50-150
Cobalt	0.00200	0.00214		107	50-150
Copper	0.00200	0.00212		106	50-150
Lead	0.00200	0.00214		107	50-150
Nickel	0.00200	0.00211	J	106	50-150
Selenium	0.00200	0.00193		97	50-150
Silver	0.00200	0.00212		106	50-150
Sodium	0.200	ND		104	50-150
Thallium	0.00200	0.00220		110	50-150
Vanadium	0.00200	0.00201		100	50-150
Zinc	0.00200	0.00211		105	50-150

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IIB-IN

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-98286/7 10/19/2011 15:14		CCB 580-98286/12 10/19/2011 19:49		CCB 580-98286/24 10/19/2011 20:57		CCB 580-98286/35 10/19/2011 22:01	
		Found	C	Found	C	Found	C	Found	C
Potassium	3.3	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-98286/44 10/19/2011 22:53		CCB 580-98286/56 10/20/2011 00:02		CCB 580-98286/63 10/20/2011 00:43			
		Found	C	Found	C	Found	C	Found	C
Potassium	3.3	ND		ND		ND			

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-98052/7 10/18/2011 16:42		CCB 580-98052/12 10/18/2011 17:25		CCB 580-98052/24 10/18/2011 18:37		CCB 580-98052/36 10/18/2011 19:49	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	0.0758	J	0.190	J	ND		ND	
Iron	0.20	ND		0.0456	J	ND		0.0681	J
Magnesium	1.1	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-98052/48 10/18/2011 21:02		CCB 580-98052/60 10/18/2011 22:18		CCB 580-98052/70 10/18/2011 23:20			
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	0.0288	J	0.0287	J	ND			
Iron	0.20	ND		0.0699	J	0.0901	J		
Magnesium	1.1	ND		ND		ND			

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-98054/7 10/18/2011 16:42		CCB 580-98054/12 10/19/2011 00:36		CCB 580-98054/24 10/19/2011 01:51		CCB 580-98054/36 10/19/2011 03:07	
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	0.0758	J	ND		ND		0.0728	J
Iron	0.20	ND		0.0320	J	ND		ND	
Magnesium	1.1	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-98054/44 10/19/2011 03:59							
		Found	C	Found	C	Found	C	Found	C
Calcium	1.1	0.0583	J						
Iron	0.20	0.0650	J						
Magnesium	1.1	ND							

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-98109/11 10/19/2011 10:57		CCB 580-98109/24 10/19/2011 11:38		CCB 580-98109/36 10/19/2011 12:15		CCB 580-98109/45 10/19/2011 12:53	
		Found	C	Found	C	Found	C	Found	C
Antimony	0.00040	ND		ND		ND		ND	
Arsenic	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Manganese	0.0010	ND		ND		ND		ND	
Aluminum	0.080	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		0.000319	J	ND		ND	
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-98109/54 10/19/2011 13:30		CCB 580-98109/63 10/19/2011 14:08		CCB 580-98109/75 10/19/2011 14:46		CCB 580-98109/86 10/19/2011 15:23	
		Found	C	Found	C	Found	C	Found	C
Antimony	0.00040	ND		ND		0.0000890	J	ND	
Arsenic	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Manganese	0.0010	ND		ND		ND		ND	
Aluminum	0.080	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		ND		ND		0.000345	J
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-98033/8 10/18/2011 15:22		CCB 580-98033/13 10/18/2011 16:27		CCB 580-98033/19 10/18/2011 16:56		CCB 580-98033/31 10/18/2011 17:54	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		ND		ND		ND	
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	0.000535	J	0.000300	J	0.000532	J	ND	
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-98033/39 10/18/2011 18:32		CCB 580-98033/47 10/18/2011 19:11		CCB 580-98033/53 10/18/2011 19:40		CCB 580-98033/65 10/18/2011 20:38	
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND		ND		ND		ND	
Barium	0.0012	ND		ND		ND		ND	
Beryllium	0.00040	ND		ND		ND		ND	
Cadmium	0.00040	ND		ND		ND		ND	
Chromium	0.00040	ND		ND		ND		ND	
Cobalt	0.00040	ND		ND		ND		ND	
Copper	0.0010	ND		ND		ND		ND	
Lead	0.00040	ND		0.0000622	J	ND		0.0000487	J
Nickel	0.0030	ND		ND		ND		ND	
Selenium	0.0014	ND		ND		ND		ND	
Silver	0.00040	ND		ND		ND		ND	
Sodium	10	ND		ND		ND		ND	
Thallium	0.0010	ND		ND		0.000434	J	ND	
Vanadium	0.0020	ND		ND		ND		ND	
Zinc	0.0014	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-98033/68 10/18/2011 20:52							
		Found	C	Found	C	Found	C	Found	C
Aluminum	0.080	ND							
Barium	0.0012	ND							
Beryllium	0.00040	ND							
Cadmium	0.00040	ND							
Chromium	0.00040	ND							
Cobalt	0.00040	ND							
Copper	0.0010	ND							
Lead	0.00040	ND							
Nickel	0.0030	ND							
Selenium	0.0014	ND							
Silver	0.00040	ND							
Sodium	10	ND							
Thallium	0.0010	ND							
Vanadium	0.0020	ND							
Zinc	0.0014	ND							

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	ICB 580-98059/8 10/18/2011 14:43		CCB 580-98059/10 10/18/2011 14:49		CCB 580-98059/22 10/18/2011 15:13		CCB 580-98059/32 10/18/2011 15:36	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-98059/37 10/18/2011 15:48		CCB 580-98059/43 10/18/2011 16:00		CCB 580-98059/52 10/18/2011 16:21		CCB 580-98059/63 10/18/2011 16:45	
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND		ND		ND		ND	

Italicized analytes were not requested for this sequence.

3-IN
INSTRUMENT BLANKS
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/L

Analyte	RL	CCB 580-98059/71 10/18/2011 17:01							
		Found	C	Found	C	Found	C	Found	C
Mercury	0.00020	ND							

Italicized analytes were not requested for this sequence.

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97966/21-A

Instrument Code: TAC047 Batch No.: 98052

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	4.69	J		6010B
7439-89-6	Iron	2.79	J		6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97974/20-A

Instrument Code: TAC047 Batch No.: 98054

CAS No.	Analyte	Concentration	C	Q	Method
7440-70-2	Calcium	ND			6010B
7439-89-6	Iron	0.770	J		6010B
7439-95-4	Magnesium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97966/21-A

Instrument Code: SEA027 Batch No.: 98286

CAS No.	Analyte	Concentration	C	Q	Method
7440-09-7	Potassium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97974/20-A

Instrument Code: SEA027 Batch No.: 98286

CAS No.	Analyte	Concentration	C	Q	Method
7440-09-7	Potassium	ND			6010B

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97966/21-A

Instrument Code: SEA044 Batch No.: 98033

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6020
7440-39-3	Barium	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-48-4	Cobalt	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	ND			6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-23-5	Sodium	ND			6020
7440-28-0	Thallium	ND			6020
7440-62-2	Vanadium	ND			6020
7440-66-6	Zinc	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97974/20-A

Instrument Code: SEA044 Batch No.: 98033

CAS No.	Analyte	Concentration	C	Q	Method
7429-90-5	Aluminum	ND			6020
7440-39-3	Barium	ND			6020
7440-41-7	Beryllium	ND			6020
7440-43-9	Cadmium	ND			6020
7440-47-3	Chromium	ND			6020
7440-48-4	Cobalt	ND			6020
7440-50-8	Copper	ND			6020
7439-92-1	Lead	0.0254	J		6020
7440-02-0	Nickel	ND			6020
7782-49-2	Selenium	ND			6020
7440-22-4	Silver	ND			6020
7440-23-5	Sodium	ND			6020
7440-28-0	Thallium	ND			6020
7440-62-2	Vanadium	ND			6020
7440-66-6	Zinc	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97966/21-A

Instrument Code: SEA026 Batch No.: 98109

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	ND			6020
7440-38-2	Arsenic	ND			6020
7439-96-5	Manganese	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97974/20-A

Instrument Code: SEA026 Batch No.: 98109

CAS No.	Analyte	Concentration	C	Q	Method
7440-36-0	Antimony	ND			6020
7440-38-2	Arsenic	ND			6020
7439-96-5	Manganese	ND			6020

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97935/21-A

Instrument Code: TAC103 Batch No.: 98059

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

3-IN
METHOD BLANK
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Concentration Units: mg/Kg Lab Sample ID: MB 580-97946/20-A

Instrument Code: TAC103 Batch No.: 98059

CAS No.	Analyte	Concentration	C	Q	Method
7439-97-6	Mercury	ND			7471A

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSAB 580-98286/10 Instrument ID: SEA027

Lab File ID: 580-29110Kall.prn ICS Source: ICP ICSAB_00029

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Potassium	**200**	**223**	**112**

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSA 580-98052/9 Instrument ID: TAC047

Lab File ID: 580-97966T4.asc ICS Source: ICP ICSA_00037

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500**	**488**	**98**
Iron	**200**	**192**	**96**
Magnesium	**500**	**494**	**99**
Aluminum	*500*	*503*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSA 580-98054/9 Instrument ID: TAC047

Lab File ID: 580-97974T4.asc ICS Source: ICP ICSA_00037

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Calcium	**500**	**488**	**98**
Iron	**200**	**192**	**96**
Magnesium	**500**	**494**	**99**
Aluminum	*500*	*503*	*101*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSAB 580-98052/10 Instrument ID: TAC047

Lab File ID: 580-97966T4.asc ICS Source: ICP ICSAB_00029

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**500**	**494**	**99**
Iron	**200**	**191**	**96**
Magnesium	**500**	**490**	**98**
Aluminum	*500*	*501*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSAB 580-98054/10 Instrument ID: TAC047

Lab File ID: 580-97974T4.asc ICS Source: ICP ICSAB_00029

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Calcium	**500**	**494**	**99**
Iron	**200**	**191**	**96**
Magnesium	**500**	**490**	**98**
Aluminum	*500*	*501*	*100*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSA 580-98109/8 Instrument ID: SEA026

Lab File ID: 97966-ICPMS.rep ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Antimony		**0.0001**	
Arsenic		**0.0000**	
Lead		**0.0000**	
Manganese		**0.0003**	
Aluminum	*20.0*	*19.0*	*95*
Barium		*0.0001*	
Beryllium		*0.0000*	
Cadmium		*0.0007*	
Calcium	*60.0*	*60.1*	*100*
Chromium		*0.0012*	
Cobalt		*0.0001*	
Copper		*0.0008*	
Iron	*50.0*	*48.6*	*97*
Magnesium	*20.0*	*20.3*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.401*	*100*
Nickel		*0.0013*	
Phosphorus	*20.0*	*19.5*	*97*
Potassium	*20.0*	*20.2*	*101*
Selenium		*0.0000*	
Silver		*0.0000*	
Sodium	*50.0*	*51.2*	*102*
Strontium		*-0.0013*	
Thallium		*0.0001*	
Tin		*0.0001*	
Titanium	*0.400*	*0.342*	*86*
Uranium		*0.0000*	
Vanadium		*0.0000*	
Zinc		*0.0014*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSAB 580-98109/9 Instrument ID: SEA026

Lab File ID: 97966-ICPMS.rep ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Antimony		**0.0001**	
Arsenic	**0.0200**	**0.0199**	**99**
Lead		**0.0001**	
Manganese	**0.0400**	**0.0397**	**99**
Aluminum	*20.0*	*19.2*	*96*
Barium		*0.0001*	
Beryllium		*0.0000*	
Cadmium	*0.0200*	*0.0211*	*106*
Calcium	*60.0*	*60.0*	*100*
Chromium	*0.0400*	*0.0405*	*101*
Cobalt	*0.0400*	*0.0397*	*99*
Copper	*0.0400*	*0.0382*	*96*
Iron	*50.0*	*48.3*	*97*
Magnesium	*20.0*	*20.2*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.407*	*102*
Nickel	*0.0400*	*0.0395*	*99*
Phosphorus	*20.0*	*20.0*	*100*
Potassium	*20.0*	*20.4*	*102*
Selenium	*0.0200*	*0.0195*	*98*
Silver	*0.0100*	*0.0101*	*101*
Sodium	*50.0*	*51.5*	*103*
Strontium		*-0.0012*	
Thallium		*0.0000*	
Tin		*0.0000*	
Titanium	*0.400*	*0.338*	*85*
Uranium		*0.0000*	
Vanadium	*0.0400*	*0.0398*	*100*
Zinc	*0.0200*	*0.0205*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSAB 580-98109/9 Instrument ID: SEA026

Lab File ID: 97966-ICPMS.rep ICS Source: ICPMS-ICSB_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Percent Recovery
Antimony		**0.0001**	
Arsenic	**0.0200**	**0.0199**	**99**
Lead		**0.0001**	
Manganese	**0.0400**	**0.0397**	**99**
Aluminum	*20.0*	*19.2*	*96*
Barium		*0.0001*	
Beryllium		*0.0000*	
Cadmium	*0.0200*	*0.0211*	*106*
Calcium	*60.0*	*60.0*	*100*
Chromium	*0.0400*	*0.0405*	*101*
Cobalt	*0.0400*	*0.0397*	*99*
Copper	*0.0400*	*0.0382*	*96*
Iron	*50.0*	*48.3*	*97*
Magnesium	*20.0*	*20.2*	*101*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.407*	*102*
Nickel	*0.0400*	*0.0395*	*99*
Phosphorus	*20.0*	*20.0*	*100*
Potassium	*20.0*	*20.4*	*102*
Selenium	*0.0200*	*0.0195*	*98*
Silver	*0.0100*	*0.0101*	*101*
Sodium	*50.0*	*51.5*	*103*
Strontium		*-0.0012*	
Thallium		*0.0000*	
Tin		*0.0000*	
Titanium	*0.400*	*0.338*	*85*
Uranium		*0.0000*	
Vanadium	*0.0400*	*0.0398*	*100*
Zinc	*0.0200*	*0.0205*	*103*

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSA 580-98033/10 Instrument ID: SEA044

Lab File ID: 013SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution A	Found Solution A	Percent Recovery
Aluminum	**20.0**	**19.5**	**97**
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium		**0.0001**	
Chromium		**0.0012**	
Cobalt		**0.0000**	
Copper		**0.0001**	
Lead		**0.0000**	
Nickel		**0.0005**	
Selenium		**0.0000**	
Silver		**0.0000**	
Sodium	**50.0**	**51.0**	**102**
Thallium		**0.0002**	
Vanadium		**-0.0002**	
Zinc		**0.0009**	
Calcium	*60.0*	*58.1*	*97*
Iron	*50.0*	*50.2*	*100*
Magnesium	*20.0*	*20.3*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.443*	*111*
Phosphorus	*20.0*	*20.7*	*103*
Potassium	*20.0*	*20.1*	*100*
Strontium		*-0.0011*	
Tin		*0.0001*	
Titanium	*0.400*	*0.405*	*101*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSAB 580-98033/11 Instrument ID: SEA044

Lab File ID: 014SMPL.D ICS Source: ICPMS- ICSA_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**20.0**	**19.9**	**99**
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0216**	**108**
Chromium	**0.0400**	**0.0409**	**102**
Cobalt	**0.0400**	**0.0405**	**101**
Copper	**0.0400**	**0.0405**	**101**
Lead		**0.0001**	
Nickel	**0.0400**	**0.0417**	**104**
Selenium	**0.0200**	**0.0211**	**106**
Silver	**0.0100**	**0.0108**	**108**
Sodium	**50.0**	**51.4**	**103**
Thallium		**0.0001**	
Vanadium	**0.0400**	**0.0406**	**102**
Zinc	**0.0200**	**0.0220**	**110**
Calcium	*60.0*	*58.0*	*97*
Iron	*50.0*	*49.8*	*100*
Magnesium	*20.0*	*20.3*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.444*	*111*
Phosphorus	*20.0*	*20.7*	*104*
Potassium	*20.0*	*20.1*	*101*
Strontium		*-0.0011*	
Tin		*0.0001*	
Titanium	*0.400*	*0.405*	*101*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

4A-IN
INTERFERENCE CHECK STANDARD
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Lab Sample ID: ICSAB 580-98033/11 Instrument ID: SEA044

Lab File ID: 014SMPL.D ICS Source: ICPMS-ICSB_00002

Concentration Units: mg/L

Analyte	True Solution AB	Found Solution AB	Found Percent Recovery
Aluminum	**20.0**	**19.9**	**99**
Barium		**0.0001**	
Beryllium		**0.0000**	
Cadmium	**0.0200**	**0.0216**	**108**
Chromium	**0.0400**	**0.0409**	**102**
Cobalt	**0.0400**	**0.0405**	**101**
Copper	**0.0400**	**0.0405**	**101**
Lead		**0.0001**	
Nickel	**0.0400**	**0.0417**	**104**
Selenium	**0.0200**	**0.0211**	**106**
Silver	**0.0100**	**0.0108**	**108**
Sodium	**50.0**	**51.4**	**103**
Thallium		**0.0001**	
Vanadium	**0.0400**	**0.0406**	**102**
Zinc	**0.0200**	**0.0220**	**110**
Calcium	*60.0*	*58.0*	*97*
Iron	*50.0*	*49.8*	*100*
Magnesium	*20.0*	*20.3*	*102*
Mercury		*0.0000*	
Molybdenum	*0.400*	*0.444*	*111*
Phosphorus	*20.0*	*20.7*	*104*
Potassium	*20.0*	*20.1*	*101*
Strontium		*-0.0011*	
Tin		*0.0001*	
Titanium	*0.400*	*0.405*	*101*
Uranium		*0.0000*	

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM IVA-IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: PUSHER S-1 0-6 MS Lab ID: 580-29110-1 MS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 91.5

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	2180		1100		1060	100	80-120		6010B
Calcium	1530		450		1060	102	80-120		6010B
Calcium	1580	J	720	J	1060	81	80-120		6010B
Iron	33800		33000		1170	50	80-120	4	6010B
Magnesium	4610	J	3700	J	1060	86	80-120		6010B
Magnesium	4150		3100		1060	98	80-120		6010B
Aluminum	15600		14000		212	681	80-120	4	6020
Antimony	109		1.3		159	67	80-120	F	6020
Arsenic	1160		710		212	211	80-120	F	6020
Barium	236		25		212	99	80-120		6020
Beryllium	5.27		0.082	J	5.31	98	80-120		6020
Cadmium	5.50		0.11	J	5.31	102	80-120		6020
Chromium	27.1		6.2		21.2	98	80-120		6020
Cobalt	57.6		4.2		53.1	101	80-120		6020
Copper	409		360		26.5	188	80-120	4	6020
Lead	115		59		53.1	107	80-120		6020
Manganese	176		120		53.1	107	80-120		6020
Nickel	55.2		2.7		53.1	99	80-120		6020
Selenium	208		1.5		212	97	80-120		6020
Silver	32.1		0.47		31.8	99	80-120		6020
Sodium	1150		76	J	1060	101	80-120		6020
Thallium	229		0.37	J	212	108	80-120		6020
Vanadium	96.6		46		53.1	96	80-120		6020
Zinc	86.7		34		53.1	100	80-120		6020
Mercury	0.478		0.28		0.168	116	80-120		7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE SAMPLE RECOVERY
METALS

Client ID: PORTLAND 2 S1 0-6 MS Lab ID: 580-29110-18 MS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 96.0

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	1850		1300		966	58	80-120	F	6010B
Calcium	3100		1900		966	124	80-120	F	6010B
Calcium	3440	J	1500	J	966	203	80-120	F	6010B
Iron	63700		56000		1060	718	80-120	4	6010B
Magnesium	6190		5000	J	966	123	80-120	4	6010B
Magnesium	5450		4700		966	78	80-120	4	6010B
Aluminum	10200		9100		193	569	80-120	4	6020
Antimony	98.3		29		145	48	80-120	F	6020
Arsenic	1170		1200		193	-17	80-120	4	6020
Barium	239		50		193	98	80-120		6020
Beryllium	4.79		0.20		4.83	95	80-120		6020
Cadmium	13.8		9.6		4.83	87	80-120		6020
Chromium	27.0		9.5		19.3	90	80-120		6020
Cobalt	81.9		36		48.3	95	80-120		6020
Copper	252		230		24.1	89	80-120	4	6020
Lead	443		430		48.3	23	80-120	4	6020
Manganese	10900		9600		48.3	2680	80-120	4	6020
Nickel	54.6		9.7		48.3	93	80-120		6020
Selenium	177		0.52	J	193	92	80-120		6020
Silver	31.1		3.9		29.0	94	80-120		6020
Sodium	1350		350		966	103	80-120		6020
Thallium	204		0.38	J	193	105	80-120		6020
Vanadium	98.6		59		48.3	82	80-120		6020
Zinc	875		830		48.3	88	80-120	4	6020
Mercury	1.24		1.2		0.154	57	80-120	4	7471A

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VA - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: PUSHER S-1 0-6 MSD Lab ID: 580-29110-1 MSD

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 91.5

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	2060		987	95	80-120	6	20		6010B
Calcium	1850	J	987	115	80-120	16	20		6010B
Calcium	1420		987	99	80-120	8	20		6010B
Iron	37000		1090	346	80-120	9	20	4	6010B
Magnesium	4780	J	987	110	80-120	4	20		6010B
Magnesium	4040		987	95	80-120	3	20		6010B
Aluminum	17400		197	1648	80-120	11	20	4	6020
Antimony	106		148	71	80-120	2	20	F	6020
Arsenic	1060		197	178	80-120	9	20	F	6020
Barium	238		197	108	80-120	1	20		6020
Beryllium	5.40		4.94	108	80-120	2	20		6020
Cadmium	5.36		4.94	106	80-120	3	20		6020
Chromium	27.6		19.7	109	80-120	2	20		6020
Cobalt	59.1		49.4	111	80-120	3	20		6020
Copper	451		24.7	371	80-120	10	20	4	6020
Lead	124		49.4	132	80-120	7	20	F	6020
Manganese	192		49.4	146	80-120	8	20	F	6020
Nickel	56.3		49.4	109	80-120	2	20		6020
Selenium	213		197	107	80-120	2	20		6020
Silver	32.5		29.6	108	80-120	1	20		6020
Sodium	1200		987	114	80-120	4	20		6020
Thallium	237		197	120	80-120	3	20		6020
Vanadium	101		49.4	112	80-120	4	20		6020
Zinc	91.5		49.4	117	80-120	5	20		6020
Mercury	0.522		0.178	134	80-120	9	20	F	7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5A-IN
MATRIX SPIKE DUPLICATE SAMPLE RECOVERY
METALS

Client ID: PORTLAND 2 S1 0-6 MSD Lab ID: 580-29110-18 MSD

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

% Solids: 96.0

Analyte	(SDR)	C	Spike Added (SA)	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	1910		998	61	80-120	3	20	F	6010B
Calcium	3210	J	998	173	80-120	7	20	F	6010B
Calcium	3070		998	117	80-120	1	20		6010B
Iron	68800		1100	1164	80-120	8	20	4	6010B
Magnesium	6020		998	102	80-120	3	20	4	6010B
Magnesium	5270		998	58	80-120	3	20	4	6010B
Aluminum	11000		200	979	80-120	8	20	4	6020
Antimony	108		150	53	80-120	9	20	F	6020
Arsenic	1370		200	83	80-120	16	20	4	6020
Barium	283		200	117	80-120	17	20		6020
Beryllium	5.92		4.99	115	80-120	21	20	F	6020
Cadmium	15.7		4.99	123	80-120	13	20	F	6020
Chromium	32.0		20.0	113	80-120	17	20		6020
Cobalt	98.6		49.9	126	80-120	18	20	F	6020
Copper	293		24.9	248	80-120	15	20	4	6020
Lead	494		49.9	125	80-120	11	20	4	6020
Manganese	10600		49.9	1969	80-120	3	20	4	6020
Nickel	64.1		49.9	109	80-120	16	20		6020
Selenium	217		200	108	80-120	20	20		6020
Silver	38.9		29.9	117	80-120	22	20	F	6020
Sodium	1590		998	124	80-120	16	20	F	6020
Thallium	241		200	121	80-120	17	20	F	6020
Vanadium	120		49.9	122	80-120	19	20	F	6020
Zinc	992		49.9	320	80-120	13	20	4	6020
Mercury	1.35		0.166	119	80-120	8	20	4	7471A

SDR = Sample Duplicate Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VD - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: PUSHER S-1 0-6 PDS Lab ID: 580-29110-1 PDS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	1950		1100		969	86			6010B
Calcium	2020	J	720	J	96900	1			6010B
Calcium	1360		450		969	94			6010B
Iron	33800		33000		107000	0.6	75-125	W	6010B
Magnesium	3860		3100		969	78	75-125		6010B
Magnesium	4710	J	3700	J	96900	1	75-125	W	6010B
Aluminum	13900		14000		194	NC	75-125		6020
Antimony	149		1.3		145	102	75-125		6020
Arsenic	915		710		194	107	75-125		6020
Barium	238		25		194	110	75-125		6020
Beryllium	5.31		0.082	J	4.84	108	75-125		6020
Cadmium	5.31		0.11	J	4.84	107	75-125		6020
Chromium	27.0		6.2		19.4	107	75-125		6020
Cobalt	58.0		4.2		48.4	111	75-125		6020
Copper	387		360		24.2	NC	75-125		6020
Lead	111		59		48.4	108	75-125		6020
Manganese	160		120		48.4	84	75-125		6020
Nickel	56.6		2.7		48.4	111	75-125		6020
Selenium	213		1.5		194	109	75-125		6020
Silver	33.1		0.47		29.1	112	75-125		6020
Sodium	1130		76	J	969	108	75-125		6020
Thallium	239		0.37	J	194	123	75-125		6020
Vanadium	94.7		46		48.4	101	75-125		6020
Zinc	85.0		34		48.4	106	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

5B-IN
POST DIGESTION SPIKE SAMPLE RECOVERY
METALS

Client ID: PORTLAND 2 S1 0-6 PDS Lab ID: 580-29110-18 PDS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Matrix: Solid Concentration Units: mg/Kg

Analyte	SSR	C	Sample Result (SR)	C	Spike Added (SA)	%R	Control Limit %R	Q	Method
Potassium	2070		1300		984	79			6010B
Calcium	2800	J	1500	J	98400	1			6010B
Calcium	2770		1900		984	89			6010B
Iron	57300		56000		108000	1	75-125	W	6010B
Magnesium	5710		5000	J	98400	0.7	75-125	W	6010B
Magnesium	5220		4700		984	53	75-125	W	6010B
Aluminum	8520		9100		197	NC	75-125		6020
Antimony	178		29		148	101	75-125		6020
Arsenic	1340		1200		197	66	75-125	W	6020
Barium	249		50		197	101	75-125		6020
Beryllium	5.27		0.20		4.92	103	75-125		6020
Cadmium	12.8		9.6		4.92	65	75-125	W	6020
Chromium	28.6		9.5		19.7	97	75-125		6020
Cobalt	82.8		36		49.2	95	75-125		6020
Copper	232		230		24.6	6	75-125	W	6020
Lead	424		430		49.2	-17	75-125	W	6020
Manganese	9120		9600		49.2	NC	75-125		6020
Nickel	57.8		9.7		49.2	98	75-125		6020
Selenium	200		0.52	J	197	101	75-125		6020
Silver	34.5		3.9		29.5	103	75-125		6020
Sodium	1310		350		984	97	75-125		6020
Thallium	218		0.38	J	197	111	75-125		6020
Vanadium	101		59		49.2	85	75-125		6020
Zinc	776		830		49.2	NC	75-125		6020

SSR = Spiked Sample Result

Calculations are performed before rounding to avoid round-off errors in calculated results.
Note - Results and Reporting Limits have been adjusted for dry weight.

FORM VB - IN

6-IN
DUPLICATES
METALS

Client ID: PUSHER S-1 0-6 DU | Lab ID: 580-29110-1 DU

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG No.:

% Solids for Sample: 91.5 | % Solids for Duplicate: 91.5

Matrix: Solid | Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Potassium	180	1100		1010		10		6010B
Calcium	59	450		423		5		6010B
Calcium	5900	720	J	784	J	9		6010B
Iron	1100	33000		34200		3		6010B
Magnesium	5900	3700	J	3470	J	6		6010B
Magnesium	59	3100		2950		5		6010B
Aluminum	32	14000		16300		14		6020
Antimony	0.21	1.3		1.43		11		6020
Arsenic	0.53	710		856		19		6020
Barium	0.21	25		28.9		14		6020
Beryllium	0.21	0.082	J	0.0875	J	7		6020
Cadmium	0.21	0.11	J	0.116	J	6		6020
Chromium	0.21	6.2		7.21		15		6020
Cobalt	0.21	4.2		4.87		16		6020
Copper	0.21	360		408		13		6020
Lead	0.21	59		66.0		12		6020
Manganese	0.53	120		133		11		6020
Nickel	0.21	2.7		3.14		14		6020
Selenium	0.75	1.5		1.70		12		6020
Silver	0.21	0.47		0.532		13		6020
Sodium	110	76	J	86.2	J	13		6020
Thallium	0.53	0.37	J	0.404	J	7		6020
Vanadium	0.75	46		52.6		14		6020
Zinc	0.75	34		38.2		13		6020
Mercury	0.15	0.28		0.315		11		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

6-IN
DUPLICATES
METALS

Client ID: PORTLAND 2 S1 0-6 DU
Lab ID: 580-29110-18 DU
Lab Name: TestAmerica Seattle
Job No.: 580-29110-1
SDG No.:
% Solids for Sample: 96.0
% Solids for Duplicate: 96.0
Matrix: Solid
Concentration Units: mg/Kg

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	Method
Potassium	170	1300		1350		4		6010B
Calcium	56	1900		1780		6		6010B
Calcium	5600	1500	J	1650	J	11		6010B
Iron	1000	56000		63200		12		6010B
Magnesium	5600	5000	J	5140	J	3		6010B
Magnesium	56	4700		4630		1		6010B
Aluminum	31	9100		9290		2		6020
Antimony	1.0	29		30.4		5		6020
Arsenic	2.6	1200		1270		5		6020
Barium	0.20	50		50.7		0.6		6020
Beryllium	0.20	0.20		0.200		0.7		6020
Cadmium	0.20	9.6		9.79		2		6020
Chromium	0.20	9.5		9.68		1		6020
Cobalt	0.20	36		37.1		3		6020
Copper	0.20	230		239		3		6020
Lead	0.20	430		444		3		6020
Manganese	2.6	9600		10000		5		6020
Nickel	0.20	9.7		9.82		2		6020
Selenium	0.72	0.52	J	0.514	J	1		6020
Silver	0.20	3.9		4.06		4		6020
Sodium	100	350		356		1		6020
Thallium	0.51	0.38	J	0.385	J	0.6		6020
Vanadium	0.72	59		60.3		2		6020
Zinc	0.72	830		848		2		6020
Mercury	0.17	1.2		1.15		0.07		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VI-IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97966/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Calcium	1000	1010		101	80	120		6010B
Iron	1100	1120		102	80	120		6010B
Magnesium	1000	992		99	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97966/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	985		1000	98	80-120	2	20		6010B
Iron	1080		1100	99	80-120	3	20		6010B
Magnesium	995		1000	99	80-120	0	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97966/24-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Calcium	6700	6630		99	75.4	124.0		6010B
Iron	13100	9470		72	41.6	159.1		6010B
Magnesium	2980	2300		77	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97974/21-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Calcium	1000	1020		102	80	120		6010B
Iron	1100	1170		107	80	120		6010B
Magnesium	1000	971		97	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97974/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Calcium	1020		1000	102	80-120	0	20		6010B
Iron	1180		1100	107	80-120	0	20		6010B
Magnesium	942		1000	94	80-120	3	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97974/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Calcium	6700	6650		99	75.4	124.0		6010B
Iron	13100	11200		85	41.6	159.1		6010B
Magnesium	2980	2370		79	70.0	130.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97966/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	1000	1130		113	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97966/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	990		1000	99	80-120	13	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97966/24-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	2770	2090		75	65.0	135.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97974/21-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	1000	1030		103	80	120		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97974/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-3_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Potassium	1070		1000	107	80-120	4	20		6010B

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97974/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Potassium	2770	2250		81	65.0	135.0		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97966/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	200	195		97	80	120		6020
Barium	200	203		102	80	120		6020
Beryllium	5.00	5.07		101	80	120		6020
Cadmium	5.00	5.00		100	80	120		6020
Chromium	20.0	20.5		103	80	120		6020
Cobalt	50.0	52.4		105	80	120		6020
Copper	25.0	25.9		104	80	120		6020
Lead	50.0	52.5		105	80	120		6020
Nickel	50.0	50.4		101	80	120		6020
Selenium	200	198		99	80	120		6020
Silver	30.0	31.5		105	80	120		6020
Sodium	1000	1000		100	80	120		6020
Thallium	200	202		101	80	120		6020
Vanadium	50.0	50.4		101	80	120		6020
Zinc	50.0	52.4		105	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97966/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	194		200	97	80-120	1	20		6020
Barium	201		200	100	80-120	1	20		6020
Beryllium	5.05		5.00	101	80-120	0	20		6020
Cadmium	5.32		5.00	106	80-120	6	20		6020
Chromium	20.3		20.0	102	80-120	1	20		6020
Cobalt	51.8		50.0	104	80-120	1	20		6020
Copper	25.5		25.0	102	80-120	2	20		6020
Lead	52.3		50.0	105	80-120	0	20		6020
Nickel	49.6		50.0	99	80-120	2	20		6020
Selenium	196		200	98	80-120	1	20		6020
Silver	31.2		30.0	104	80-120	1	20		6020
Sodium	994		1000	99	80-120	1	20		6020
Thallium	200		200	100	80-120	1	20		6020
Vanadium	49.8		50.0	100	80-120	1	20		6020
Zinc	51.2		50.0	102	80-120	2	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97966/24-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	9780	7470		76	46.0	153.8		6020
Barium	325	332		102	74.7	125.5		6020
Beryllium	92.1	90.7		98	75.3	124.7		6020
Cadmium	110	113		103	73.2	126.8		6020
Chromium	93.4	94.7		101	69.9	129.8		6020
Cobalt	133	148		111	74.5	126.1		6020
Copper	84.7	73.3		86	73.2	126.8		6020
Lead	152	168		111	75.3	125.1		6020
Nickel	109	112		102	73.8	126.7		6020
Selenium	207	215		104	67.1	132.7		6020
Silver	51.9	53.2		103	65.6	134.4		6020
Sodium	724	728		101	52.0	148.0		6020
Thallium	171	182		106	68.8	131.2		6020
Vanadium	110	113		103	64.5	135.3		6020
Zinc	299	303		101	72.2	127.8		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97974/21-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	200	195		97	80	120		6020
Barium	200	205		103	80	120		6020
Beryllium	5.00	5.12		102	80	120		6020
Cadmium	5.00	5.13		103	80	120		6020
Chromium	20.0	20.7		104	80	120		6020
Cobalt	50.0	53.4		107	80	120		6020
Copper	25.0	25.5		102	80	120		6020
Lead	50.0	52.4		105	80	120		6020
Nickel	50.0	49.6		99	80	120		6020
Selenium	200	197		98	80	120		6020
Silver	30.0	31.7		106	80	120		6020
Sodium	1000	995		100	80	120		6020
Thallium	200	213		107	80	120		6020
Vanadium	50.0	51.1		102	80	120		6020
Zinc	50.0	51.4		103	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97974/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-1_00021

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Aluminum	188		200	94	80-120	4	20		6020
Barium	203		200	102	80-120	1	20		6020
Beryllium	5.20		5.00	104	80-120	2	20		6020
Cadmium	5.13		5.00	103	80-120	0	20		6020
Chromium	20.0		20.0	100	80-120	3	20		6020
Cobalt	52.1		50.0	104	80-120	3	20		6020
Copper	25.3		25.0	101	80-120	1	20		6020
Lead	51.9		50.0	104	80-120	1	20		6020
Nickel	49.1		50.0	98	80-120	1	20		6020
Selenium	196		200	98	80-120	1	20		6020
Silver	31.3		30.0	104	80-120	1	20		6020
Sodium	988		1000	99	80-120	1	20		6020
Thallium	215		200	107	80-120	1	20		6020
Vanadium	49.2		50.0	98	80-120	4	20		6020
Zinc	50.8		50.0	102	80-120	1	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97974/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Aluminum	9780	7490		77	46.0	153.8		6020
Barium	325	345		106	74.7	125.5		6020
Beryllium	92.1	94.2		102	75.3	124.7		6020
Cadmium	110	116		106	73.2	126.8		6020
Chromium	93.4	97.3		104	69.9	129.8		6020
Cobalt	133	151		114	74.5	126.1		6020
Copper	84.7	74.1		88	73.2	126.8		6020
Lead	152	172		113	75.3	125.1		6020
Nickel	109	112		103	73.8	126.7		6020
Selenium	207	218		105	67.1	132.7		6020
Silver	51.9	54.3		105	65.6	134.4		6020
Sodium	724	738		102	52.0	148.0		6020
Thallium	171	200		117	68.8	131.2		6020
Vanadium	110	115		105	64.5	135.3		6020
Zinc	299	310		104	72.2	127.8		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97966/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	150	150		100	80	120		6020
Arsenic	200	214		107	80	120		6020
Manganese	50.0	55.0		110	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97966/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	151		150	101	80-120	1	20		6020
Arsenic	215		200	107	80-120	0	20		6020
Manganese	55.2		50.0	110	80-120	0	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97966/24-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	121	208		171	21.0	251.6		6020
Arsenic	109	110		101	71.1	128.9		6020
Manganese	443	501		113	75.8	124.5		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97974/21-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	150	153		102	80	120		6020
Arsenic	200	218		109	80	120		6020
Manganese	50.0	57.9		116	80	120		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97974/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: m-GPS-2_00018

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Antimony	150		150	100	80-120	1	20		6020
Arsenic	210		200	105	80-120	4	20		6020
Manganese	54.9		50.0	110	80-120	5	20		6020

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97974/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Antimony	121	214		177	21.0	251.6		6020
Arsenic	109	110		101	71.1	128.9		6020
Manganese	443	516		116	75.8	124.5		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97935/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00009

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.174		104	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97935/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00009

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.163		0.167	98	80-120	6	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97935/24-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	17.7		109	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7A-IN
LAB CONTROL SAMPLE
METALS

Lab ID: LCS 580-97946/21-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00009

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	0.167	0.170		102	80	120		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

7D-IN
LAB CONTROL SAMPLE DUPLICATE
METALS

Lab ID: LCSD 580-97946/22-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: Hg_CAL_WORK_00009

Analyte	(SDR)	C	Spike Added	%R	Control Limit %R	RPD	RPD Limit	Q	Method
Mercury	0.166		0.167	100	80-120	2	20		7471A

SDR = Spike Duplicate Results
Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIID - IN

7A-IN
LCS-CERTIFIED REFERENCE MATERIAL
METALS

Lab ID: LCSSRM 580-97946/23-A

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

Sample Matrix: Solid LCS Source: SRMsolid_00006

Analyte	Solid(mg/Kg)							
	True	Found	C	%R	Limits		Q	Method
Mercury	16.3	16.7		102	51.1	148.9		7471A

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIIA - IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-29110-1

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-29110-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Potassium	1100		1120		0.35		6010B
Calcium			502				6010B
Calcium	720	J	ND		NC		6010B
Iron			32600				6010B
Iron	33000		32000		3.7		6010B
Magnesium	3700	J	3590	J	NC		6010B
Magnesium			3320				6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-29110-18

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-29110-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Potassium	1300		1730		34		6010B
Calcium	1500	J	3350	J	NC		6010B
Iron	56000		57500		2.5		6010B
Magnesium	5000	J	5220	J	NC		6010B

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-29110-1

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-29110-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	14000		14600		3.3		6020
Antimony	1.3		1.32		NC		6020
Arsenic	710		714		0.89		6020
Barium	25		26.0		3.4		6020
Beryllium	0.082	J	0.117	J	NC		6020
Cadmium	0.11	J	0.104	J	NC		6020
Chromium	6.2		6.07		1.8		6020
Cobalt	4.2		4.22		1.2		6020
Copper	360		378		5.2		6020
Lead	59		60.3		2.9		6020
Manganese	120		110		7.8		6020
Nickel	2.7		2.85		NC		6020
Selenium	1.5		1.32	J	NC		6020
Silver	0.47		0.446	J	NC		6020
Sodium	76	J	ND		NC		6020
Thallium	0.37	J	1.01	J	NC		6020
Vanadium	46		44.8		2.0		6020
Zinc	34		34.0		NC		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

8-IN
ICP-AES AND ICP-MS SERIAL DILUTIONS
METALS

Lab ID: 580-29110-18

SDG No:

Lab Name: TestAmerica Seattle Job No: 580-29110-1

Matrix: Solid Concentration Units: mg/Kg

Analyte	Initial Sample Result (I)	C	Serial Dilution Result (S)	C	% Difference	Q	Method
Aluminum	9100		8850		2.3		6020
Antimony	29		29.0		0.22		6020
Arsenic	1200		1250		3.8		6020
Barium	50		43.4		14	V	6020
Beryllium	0.20		0.204	J	NC		6020
Cadmium	9.6		8.46		12	V	6020
Chromium	9.5		8.90		6.8		6020
Cobalt	36		33.5		6.8		6020
Copper	230		225		2.7		6020
Lead	430		402		7.0		6020
Manganese	9600		9890		3.1		6020
Nickel	9.7		8.85		NC		6020
Selenium	0.52	J	ND		NC		6020
Silver	3.9		3.54		9.3		6020
Sodium	350		326	J	NC		6020
Thallium	0.38	J	0.820	J	NC		6020
Vanadium	59		54.4		7.7		6020
Zinc	830		782		6.1		6020

Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM VIII-IN

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: SEA027

Method: 6010B MDL Date: 08/12/2011 13:02

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Potassium		165	16

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: SEA027

Method: 6010B XMDL Date: 11/02/2010 08:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Potassium		3.3	0.41

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B MDL Date: 08/12/2011 13:02

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Calcium		55	3.1
Iron		10	0.61
Magnesium		55	3.2

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: TAC047

Method: 6010B XMDL Date: 11/02/2010 08:29

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Calcium		1.1	0.028
Iron		0.2	0.032
Magnesium		1.1	0.23

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: SEA026

Method: 6020 MDL Date: 08/17/2011 07:36

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Antimony		0.2	0.042
Arsenic		0.5	0.18
Lead		0.2	0.013
Manganese		0.5	0.17

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: SEA026

Method: 6020 XMDL Date: 06/24/2011 10:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Antimony		0.0004	0.00008
Arsenic		0.001	0.00075
Lead		0.0004	0.00004
Manganese		0.001	0.0004

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 MDL Date: 08/17/2011 07:36

Prep Method: 3050B

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Aluminum		30	3
Barium		0.2	0.03
Beryllium		0.2	0.022
Cadmium		0.2	0.008
Chromium		0.2	0.113
Cobalt		0.2	0.019
Copper		0.2	0.098
Lead		0.2	0.013
Nickel		0.2	0.203
Selenium		0.7	0.202
Silver		0.2	0.012
Sodium		100	39.2
Thallium		0.5	0.13
Vanadium		0.7	0.473
Zinc		0.7	1.12

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: SEA044

Method: 6020 XMDL Date: 06/24/2011 10:09

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (mg/L)
Aluminum		0.08	0.06
Barium		0.0012	0.000054
Beryllium		0.0004	0.0001
Cadmium		0.0004	0.000028
Chromium		0.0004	0.00027
Cobalt		0.0004	0.00004
Copper		0.001	0.000196
Lead		0.0004	0.00004
Nickel		0.003	0.0004
Selenium		0.0014	0.00071
Silver		0.0004	0.00003
Sodium		10	10
Thallium		0.001	0.00028
Vanadium		0.002	0.000975
Zinc		0.0014	0.0007

9-IN
DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A MDL Date: 06/06/2011 08:38

Prep Method: 7471A

Analyte	Wavelength/ Mass	RL (mg/Kg)	MDL (mg/Kg)
Mercury		0.02	0.0063

9-IN
CALIBRATION BLANK DETECTION LIMITS
METALS

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: TAC103

Method: 7471A XMDL Date: 10/02/2008 10:39

Analyte	Wavelength/ Mass	XRL (mg/L)	XMDL (ug/L)
Mercury		0.0002	0.000041

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-29110-1

SDG No.:

Instrument ID: SEA027 Date: 12/03/2010 07:40

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Potassium		500	6010B

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-29110-1

SDG No.:

Instrument ID: TAC047 Date: 12/03/2010 07:40

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Calcium		500	6010B
Iron		200	6010B
Magnesium		1000	6010B

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-29110-1

SDG No.:

Instrument ID: SEA026 Date: 03/01/2010 06:52

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Antimony		4	6020
Arsenic		4	6020
Lead		4	6020
Manganese		4	6020

11-IN
LINEAR RANGES
METALS

Lab Name: TestAmerica Seattle Job No: 580-29110-1

SDG No.:

Instrument ID: SEA044 Date: 03/01/2010 06:52

Analyte	Integ. Time (Sec.)	Concentration (mg/L)	Method
Aluminum		4	6020
Barium		4	6020
Beryllium		4	6020
Cadmium		4	6020
Chromium		4	6020
Cobalt		4	6020
Copper		4	6020
Lead		4	6020
Nickel		4	6020
Selenium		4	6020
Silver		4	6020
Sodium			6020
Thallium		4	6020
Vanadium		4	6020
Zinc		4	6020

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-29110-1	10/18/2011 13:48	97966	1.1285		50
580-29110-1 DU	10/18/2011 13:48	97966	1.0254		50
580-29110-1 MS	10/18/2011 13:48	97966	1.0301		50
580-29110-1 MSD	10/18/2011 13:48	97966	1.1076		50
580-29110-2	10/18/2011 13:48	97966	1.0501		50
580-29110-3	10/18/2011 13:48	97966	1.0624		50
580-29110-4	10/18/2011 13:48	97966	1.1030		50
580-29110-5	10/18/2011 13:48	97966	1.0223		50
580-29110-6	10/18/2011 13:48	97966	1.0642		50
580-29110-7	10/18/2011 13:48	97966	1.1899		50
580-29110-8	10/18/2011 13:48	97966	1.1685		50
580-29110-9	10/18/2011 13:48	97966	1.0508		50
580-29110-10	10/18/2011 13:48	97966	1.1281		50
580-29110-11	10/18/2011 13:48	97966	1.2370		50
580-29110-12	10/18/2011 13:48	97966	1.2905		50
580-29110-13	10/18/2011 13:48	97966	1.2290		50
580-29110-14	10/18/2011 13:48	97966	1.1000		50
580-29110-15	10/18/2011 13:48	97966	1.0141		50
580-29110-16	10/18/2011 13:48	97966	1.0780		50
580-29110-17	10/18/2011 13:48	97966	1.0430		50
MB 580-97966/21-A	10/18/2011 13:48	97966	1.0		50
LCS 580-97966/22-A	10/18/2011 13:48	97966	1.0		50
LCSD 580-97966/23-A	10/18/2011 13:50	97966	1.0		50
LCSSRM 580-97966/24-A	10/18/2011 13:50	97966	0.5093		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-29110-18	10/18/2011 14:31	97974	1.0588		50
580-29110-18 DU	10/18/2011 14:31	97974	1.0200		50
580-29110-18 MS	10/18/2011 14:31	97974	1.0792		50
580-29110-18 MSD	10/18/2011 14:31	97974	1.0447		50
580-29110-19	10/18/2011 14:31	97974	1.1540		50
580-29110-20	10/18/2011 14:31	97974	1.0544		50
580-29110-21	10/18/2011 14:31	97974	1.0595		50
580-29110-22	10/18/2011 14:31	97974	1.0392		50
580-29110-23	10/18/2011 14:31	97974	1.0896		50
MB 580-97974/20-A	10/18/2011 14:31	97974	1.0		50
LCS 580-97974/21-A	10/18/2011 14:31	97974	1.0		50
LCSD 580-97974/22-A	10/18/2011 14:31	97974	1.0		50
LCSSRM 580-97974/23-A	10/18/2011 14:31	97974	0.4964		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-29110-1	10/18/2011 13:48	97966	1.1285		50
580-29110-1 DU	10/18/2011 13:48	97966	1.0254		50
580-29110-1 MS	10/18/2011 13:48	97966	1.0301		50
580-29110-1 MSD	10/18/2011 13:48	97966	1.1076		50
580-29110-2	10/18/2011 13:48	97966	1.0501		50
580-29110-3	10/18/2011 13:48	97966	1.0624		50
580-29110-4	10/18/2011 13:48	97966	1.1030		50
580-29110-5	10/18/2011 13:48	97966	1.0223		50
580-29110-6	10/18/2011 13:48	97966	1.0642		50
580-29110-7	10/18/2011 13:48	97966	1.1899		50
580-29110-8	10/18/2011 13:48	97966	1.1685		50
580-29110-9	10/18/2011 13:48	97966	1.0508		50
580-29110-10	10/18/2011 13:48	97966	1.1281		50
580-29110-11	10/18/2011 13:48	97966	1.2370		50
580-29110-12	10/18/2011 13:48	97966	1.2905		50
580-29110-13	10/18/2011 13:48	97966	1.2290		50
580-29110-14	10/18/2011 13:48	97966	1.1000		50
580-29110-15	10/18/2011 13:48	97966	1.0141		50
580-29110-16	10/18/2011 13:48	97966	1.0780		50
580-29110-17	10/18/2011 13:48	97966	1.0430		50
MB 580-97966/21-A	10/18/2011 13:48	97966	1.0		50
LCS 580-97966/22-A	10/18/2011 13:48	97966	1.0		50
LCSD 580-97966/23-A	10/18/2011 13:50	97966	1.0		50
LCSSRM 580-97966/24-A	10/18/2011 13:50	97966	0.5093		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Prep Method: 3050B

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-29110-18	10/18/2011 14:31	97974	1.0588		50
580-29110-18 DU	10/18/2011 14:31	97974	1.0200		50
580-29110-18 MS	10/18/2011 14:31	97974	1.0792		50
580-29110-18 MSD	10/18/2011 14:31	97974	1.0447		50
580-29110-19	10/18/2011 14:31	97974	1.1540		50
580-29110-20	10/18/2011 14:31	97974	1.0544		50
580-29110-21	10/18/2011 14:31	97974	1.0595		50
580-29110-22	10/18/2011 14:31	97974	1.0392		50
580-29110-23	10/18/2011 14:31	97974	1.0896		50
MB 580-97974/20-A	10/18/2011 14:31	97974	1.0		50
LCS 580-97974/21-A	10/18/2011 14:31	97974	1.0		50
LCSD 580-97974/22-A	10/18/2011 14:31	97974	1.0		50
LCSSRM 580-97974/23-A	10/18/2011 14:31	97974	0.4964		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-29110-1	10/18/2011 10:47	97935	0.7133		50
580-29110-1 DU	10/18/2011 10:47	97935	0.7143		50
580-29110-1 MS	10/18/2011 10:47	97935	0.6511		50
580-29110-1 MSD	10/18/2011 10:47	97935	0.6136		50
580-29110-2	10/18/2011 10:47	97935	0.7609		50
580-29110-3	10/18/2011 10:47	97935	0.7785		50
580-29110-4	10/18/2011 10:47	97935	0.7496		50
580-29110-5	10/18/2011 10:47	97935	0.6675		50
580-29110-6	10/18/2011 10:47	97935	0.6656		50
580-29110-7	10/18/2011 10:47	97935	0.6369		50
580-29110-8	10/18/2011 10:47	97935	0.6895		50
580-29110-9	10/18/2011 10:47	97935	0.9407		50
580-29110-10	10/18/2011 10:47	97935	0.7476		50
580-29110-11	10/18/2011 10:47	97935	0.8093		50
580-29110-12	10/18/2011 10:47	97935	0.7312		50
580-29110-13	10/18/2011 10:47	97935	0.7442		50
580-29110-14	10/18/2011 10:47	97935	0.6320		50
580-29110-15	10/18/2011 10:47	97935	0.6225		50
580-29110-16	10/18/2011 10:47	97935	0.6249		50
580-29110-17	10/18/2011 10:47	97935	0.6209		50
MB 580-97935/21-A	10/18/2011 10:47	97935	0.6		50
LCS 580-97935/22-A	10/18/2011 10:47	97935	0.6		50
LCSD 580-97935/23-A	10/18/2011 10:47	97935	0.6		50
LCSSRM 580-97935/24-A	10/18/2011 10:47	97935	0.1001		50

12-IN
PREPARATION LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Prep Method: 7471A

Lab Sample ID	Preparation Date	Prep Batch	Initial Weight (g)	Initial Volume	Final Volume (mL)
580-29110-18	10/18/2011 11:56	97946	0.6381		50
580-29110-18 DU	10/18/2011 11:56	97946	0.6137		50
580-29110-18 MS	10/18/2011 11:56	97946	0.6756		50
580-29110-18 MSD	10/18/2011 11:56	97946	0.6272		50
580-29110-19	10/18/2011 11:56	97946	0.6867		50
580-29110-20	10/18/2011 11:56	97946	0.8623		50
580-29110-21	10/18/2011 11:56	97946	0.6385		50
580-29110-22	10/18/2011 11:56	97946	0.6146		50
580-29110-23	10/18/2011 11:56	97946	0.6091		50
MB 580-97946/20-A	10/18/2011 11:56	97946	0.6		50
LCS 580-97946/21-A	10/18/2011 11:56	97946	0.6		50
LCSD 580-97946/22-A	10/18/2011 11:56	97946	0.6		50
LCSSRM 580-97946/23-A	10/18/2011 11:56	97946	0.1035		50

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: SEA027 Method: 6010B

Start Date: 10/19/2011 14:40 End Date: 10/20/2011 00:43

Lab Sample ID	D / F	Type	Time	Analytes																			
				K																			
STD0 580-98286/1 IC			14:40	X																			
STD1 580-98286/2 IC			14:46	X																			
STD2 580-98286/3 IC			14:52	X																			
STD3 580-98286/4 IC			14:58	X																			
STD4 580-98286/5 IC			15:03	X																			
ICV 580-98286/6	1		15:08	X																			
ICB 580-98286/7	1		15:14	X																			
CRI 580-98286/8	1		15:20	X																			
ICSA 580-98286/9	1		15:31	X																			
ICSAB 580-98286/10	1		15:37	X																			
CCV 580-98286/11	1		19:43	X																			
CCB 580-98286/12	1		19:49	X																			
MB 580-97966/21-A	1	T	19:55	X																			
LCS 580-97966/22-A	1	T	20:01	X																			
LCSD 580-97966/23-A	1	T	20:07	X																			
LCSSRM 580-97966/24-A	1	T	20:13	X																			
580-29110-1 SD	5	T	20:19	X																			
580-29110-1	1	T	20:24	X																			
580-29110-1 DU	1	T	20:30	X																			
580-29110-1 MS	1	T	20:36	X																			
580-29110-1 MSD	1	T	20:41	X																			
580-29110-1 PDS	1	T	20:46	X																			
CCV 580-98286/23	1		20:51	X																			
CCB 580-98286/24	1		20:57	X																			
580-29110-2	1	T	21:03	X																			
580-29110-3	1	T	21:09	X																			
580-29110-4	1	T	21:14	X																			
580-29110-5	1	T	21:19	X																			
580-29110-6	1	T	21:25	X																			
580-29110-7	1	T	21:31	X																			
580-29110-8	1	T	21:37	X																			
580-29110-9	1	T	21:43	X																			
580-29110-10	1	T	21:49	X																			
CCV 580-98286/34	1		21:55	X																			
CCB 580-98286/35	1		22:01	X																			
580-29110-11	1	T	22:07	X																			
580-29110-12	1	T	22:13	X																			
580-29110-13	1	T	22:18	X																			
580-29110-14	1	T	22:24	X																			
580-29110-15	1	T	22:30	X																			
580-29110-16	1	T	22:36	X																			
580-29110-17	1	T	22:42	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: SEA027 Method: 6010B

Start Date: 10/19/2011 14:40 End Date: 10/20/2011 00:43

Lab Sample ID	D / F	Type	Time	Analytes																			
				K																			
CCV 580-98286/43	1		22:48	X																			
CCB 580-98286/44	1		22:53	X																			
MB 580-97974/20-A	1	T	22:59	X																			
LCS 580-97974/21-A	1	T	23:05	X																			
LCSD 580-97974/22-A	1	T	23:11	X																			
LCSSRM 580-97974/23-A	1	T	23:17	X																			
580-29110-18 SD	5	T	23:23	X																			
580-29110-18	1	T	23:29	X																			
580-29110-18 DU	1	T	23:35	X																			
580-29110-18 MS	1	T	23:41	X																			
580-29110-18 MSD	1	T	23:46	X																			
580-29110-18 PDS	1	T	23:51	X																			
CCV 580-98286/55	1		23:56	X																			
CCB 580-98286/56	1		00:02	X																			
580-29110-19	1	T	00:08	X																			
580-29110-20	1	T	00:14	X																			
580-29110-21	1	T	00:20	X																			
580-29110-22	1	T	00:26	X																			
580-29110-23	1	T	00:31	X																			
CCV 580-98286/62	1		00:37	X																			
CCB 580-98286/63	1		00:43	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 10/18/2011 16:06 End Date: 10/18/2011 23:20

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	Mg																	
STD0 580-98052/1 IC			16:06	X	X	X																	
STD1 580-98052/2 IC			16:12	X	X	X																	
STD2 580-98052/3 IC			16:18	X	X	X																	
STD3 580-98052/4 IC			16:23	X	X	X																	
STD4 580-98052/5 IC			16:29	X	X	X																	
ICV 580-98052/6	1		16:34	X	X	X																	
ICB 580-98052/7	1		16:42	X	X	X																	
CRI 580-98052/8	1		16:48	X	X	X																	
ICSA 580-98052/9	1		17:05	X	X	X																	
ICSAB 580-98052/10	1		17:13	X	X	X																	
CCV 580-98052/11	1		17:19	X	X	X																	
CCB 580-98052/12	1		17:25	X	X	X																	
MB 580-97966/21-A	1	T	17:31	X	X	X																	
LCS 580-97966/22-A	1	T	17:37	X	X	X																	
LCSD 580-97966/23-A	1	T	17:42	X	X	X																	
LCSSRM 580-97966/24-A	1	T	17:48	X	X	X																	
580-29110-1 SD	5	T	17:54	X	X	X																	
580-29110-1 SD	500	T	17:59	X	X	X																	
580-29110-1	1	T	18:05	X		X																	
580-29110-1	100	T	18:11		X																		
580-29110-1 DU	1	T	18:17	X		X																	
580-29110-1 DU	100	T	18:23	X	X	X																	
CCV 580-98052/23	1		18:29	X	X	X																	
CCB 580-98052/24	1		18:37	X	X	X																	
580-29110-1 MS	1	T	18:43	X		X																	
580-29110-1 MS	100	T	18:48	X	X	X																	
580-29110-1 MSD	1	T	18:54	X		X																	
580-29110-1 MSD	100	T	19:00	X	X	X																	
580-29110-1 PDS	1	T	19:06	X		X																	
580-29110-1 PDS	100	T	19:11	X	X	X																	
580-29110-2	1	T	19:17	X		X																	
580-29110-2	100	T	19:23		X																		
580-29110-3	1	T	19:29	X		X																	
580-29110-3	100	T	19:35		X																		
CCV 580-98052/35	1		19:41	X	X	X																	
CCB 580-98052/36	1		19:49	X	X	X																	
580-29110-4	1	T	19:55	X		X																	
580-29110-4	100	T	20:01		X																		
580-29110-5	1	T	20:07	X		X																	
580-29110-5	100	T	20:12		X																		
580-29110-6	1	T	20:18	X		X																	
580-29110-6	100	T	20:24		X																		

ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 10/18/2011 16:06 End Date: 10/18/2011 23:20

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	Mg																	
580-29110-7	1	T	20:30	X		X																	
580-29110-7	100	T	20:36		X																		
580-29110-8	1	T	20:42	X		X																	
580-29110-8	100	T	20:48		X																		
CCV 580-98052/47	1		20:54	X	X	X																	
CCB 580-98052/48	1		21:02	X	X	X																	
580-29110-9	1	T	21:10	X		X																	
580-29110-9	100	T	21:16		X																		
580-29110-10	1	T	21:22	X		X																	
580-29110-10	100	T	21:28		X																		
580-29110-11	1	T	21:34	X		X																	
580-29110-11	100	T	21:40		X																		
580-29110-12	1	T	21:46	X		X																	
580-29110-12	100	T	21:52		X																		
580-29110-13	1	T	21:58	X		X																	
580-29110-13	100	T	22:04		X																		
CCV 580-98052/59	1		22:10	X	X	X																	
CCB 580-98052/60	1		22:18	X	X	X																	
580-29110-14	1	T	22:24	X	X	X																	
ZZZZZZ			22:30																				
580-29110-15	1	T	22:36	X		X																	
580-29110-15	100	T	22:42		X																		
580-29110-16	1	T	22:48	X		X																	
580-29110-16	100	T	22:54		X																		
580-29110-17	1	T	23:00	X		X																	
580-29110-17	100	T	23:06		X																		
CCV 580-98052/69	1		23:12	X	X	X																	
CCB 580-98052/70	1		23:20	X	X	X																	

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 10/18/2011 16:06 End Date: 10/19/2011 03:59

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	Mg																	
STD0 580-98054/1 IC			16:06	X	X	X																	
STD1 580-98054/2 IC			16:12	X	X	X																	
STD2 580-98054/3 IC			16:18	X	X	X																	
STD3 580-98054/4 IC			16:23	X	X	X																	
STD4 580-98054/5 IC			16:29	X	X	X																	
ICV 580-98054/6	1		16:34	X	X	X																	
ICB 580-98054/7	1		16:42	X	X	X																	
CRI 580-98054/8	1		16:48	X	X	X																	
ICSA 580-98054/9	1		17:05	X	X	X																	
ICSAB 580-98054/10	1		17:13	X	X	X																	
CCV 580-98054/11	1		00:28	X	X	X																	
CCB 580-98054/12	1		00:36	X	X	X																	
MB 580-97974/20-A	1	T	00:44	X	X	X																	
LCS 580-97974/21-A	1	T	00:51	X	X	X																	
LCSD 580-97974/22-A	1	T	00:56	X	X	X																	
LCSSRM 580-97974/23-A	1	T	01:02	X	X	X																	
ZZZZZZ			01:08																				
580-29110-18 SD	500	T	01:14	X	X	X																	
580-29110-18	1	T	01:20	X		X																	
580-29110-18	100	T	01:25		X																		
580-29110-18 DU	1	T	01:31	X		X																	
580-29110-18 DU	100	T	01:37	X	X	X																	
CCV 580-98054/23	1		01:43	X	X	X																	
CCB 580-98054/24	1		01:51	X	X	X																	
580-29110-18 MS	1	T	02:00	X		X																	
580-29110-18 MS	100	T	02:05	X	X	X																	
580-29110-18 MSD	1	T	02:11	X		X																	
580-29110-18 MSD	100	T	02:17	X	X	X																	
580-29110-18 PDS	1	T	02:23	X		X																	
580-29110-18 PDS	100	T	02:29	X	X	X																	
580-29110-19	1	T	02:35	X		X																	
580-29110-19	100	T	02:41		X																		
580-29110-20	1	T	02:47	X		X																	
580-29110-20	100	T	02:52		X																		
CCV 580-98054/35	1		02:58	X	X	X																	
CCB 580-98054/36	1		03:07	X	X	X																	
580-29110-21	1	T	03:15	X		X																	
580-29110-21	100	T	03:21		X																		
580-29110-22	1	T	03:27	X		X																	
580-29110-22	100	T	03:33		X																		
580-29110-23	1	T	03:39	X		X																	
580-29110-23	100	T	03:45		X																		

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: TAC047 Method: 6010B

Start Date: 10/18/2011 16:06 End Date: 10/19/2011 03:59

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ca	Fe	Mg																	
CCV 580-98054/43	1		03:51	X	X	X																	
CCB 580-98054/44	1		03:59	X	X	X																	

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: SEA026 Method: 6020

Start Date: 10/19/2011 08:47 End Date: 10/19/2011 15:23

Lab Sample ID	D/F	Type	Time	Analytes																			
				As	Mn	Pb	Sb																
STD0 580-98109/1 IC	1		08:47	X	X	X	X																
STD1 580-98109/2 IC	1		08:50	X	X	X	X																
STD2 580-98109/3 IC	1		08:53	X	X	X	X																
STD3 580-98109/4 IC	1		08:57	X	X	X	X																
STD4 580-98109/5 IC	1		09:00	X	X	X	X																
STD5 580-98109/6 IC	1		09:03	X	X	X	X																
CRI 580-98109/7	1		09:12	X	X	X	X																
ICSA 580-98109/8	1		09:15	X	X	X	X																
ICSAB 580-98109/9	1		09:19	X	X	X	X																
ICV 580-98109/10	1		10:54	X	X	X	X																
ICB 580-98109/11	1		10:57	X	X	X	X																
CCV 580-98109/12			11:00																				
CCB 580-98109/13			11:03																				
ZZZZZZ			11:06																				
ZZZZZZ			11:09																				
ZZZZZZ			11:13																				
ZZZZZZ			11:16																				
ZZZZZZ			11:19																				
ZZZZZZ			11:22																				
ZZZZZZ			11:25																				
ZZZZZZ			11:28																				
ZZZZZZ			11:31																				
CCV 580-98109/23	1		11:34	X	X	X	X																
CCB 580-98109/24	1		11:38	X	X	X	X																
MB 580-97966/21-A	10	T	11:41	X	X		X																
580-29110-1 SD	50	T	11:44	X	X		X																
580-29110-1	10	T	11:47	X	X		X																
580-29110-1 DU	10	T	11:50	X	X		X																
580-29110-1 MS	50	T	11:53	X	X		X																
580-29110-1 MSD	50	T	11:56	X	X		X																
580-29110-1 PDS	50	T	12:00	X	X		X																
LCS 580-97966/22-A	50	T	12:03	X	X		X																
LCSD 580-97966/23-A	50	T	12:06	X	X		X																
LCSSRM 580-97966/24-A	20	T	12:09	X	X		X																
CCV 580-98109/35	1		12:12	X	X	X	X																
CCB 580-98109/36	1		12:15	X	X	X	X																
580-29110-14	10	T	12:18	X	X		X																
580-29110-15	10	T	12:22	X	X		X																
580-29110-2	100	T	12:25	X	X																		
580-29110-3	100	T	12:28		X		X																
580-29110-4	100	T	12:31	X	X		X																
580-29110-5	100	T	12:34	X	X		X																

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: SEA026 Method: 6020

Start Date: 10/19/2011 08:47 End Date: 10/19/2011 15:23

Lab Sample ID	D / F	Type	Time	Analytes																			
				As	Mn	Pb	Sb																
580-29110-3	1000	T	12:40	X																			
CCV 580-98109/44	1		12:50	X	X	X	X																
CCB 580-98109/45	1		12:53	X	X	X	X																
580-29110-6	100	T	12:56	X	X		X																
580-29110-7	100	T	12:59	X	X		X																
580-29110-8	100	T	13:02	X	X		X																
580-29110-9	100	T	13:05		X		X																
580-29110-10	100	T	13:08		X		X																
580-29110-9	1000	T	13:21	X																			
580-29110-10	1000	T	13:24	X																			
CCV 580-98109/53	1		13:27	X	X	X	X																
CCB 580-98109/54	1		13:30	X	X	X	X																
580-29110-11	100	T	13:34		X		X																
580-29110-12	100	T	13:37	X	X		X																
580-29110-13	100	T	13:40		X		X																
580-29110-16	100	T	13:43	X	X		X																
580-29110-17	100	T	13:46	X	X	X	X																
580-29110-11	1000	T	13:49	X																			
580-29110-13	1000	T	13:56	X																			
CCV 580-98109/62	1		14:05	X	X	X	X																
CCB 580-98109/63	1		14:08	X	X	X	X																
MB 580-97974/20-A	10	T	14:11	X	X		X																
580-29110-18 SD	250	T	14:15	X	X		X																
580-29110-18	50	T	14:18	X	X		X																
580-29110-18 DU	50	T	14:21	X	X		X																
580-29110-18 MS	50	T	14:24	X	X		X																
580-29110-18 MSD	50	T	14:27	X	X		X																
580-29110-18 PDS	50	T	14:30	X	X		X																
LCS 580-97974/21-A	50	T	14:33	X	X		X																
LCSD 580-97974/22-A	50	T	14:36	X	X		X																
LCSSRM 580-97974/23-A	20	T	14:39	X	X		X																
CCV 580-98109/74	1		14:43	X	X	X	X																
CCB 580-98109/75	1		14:46	X	X	X	X																
580-29110-2	10	T	14:49				X																
580-29110-19	100	T	14:52	X	X		X																
580-29110-20	100	T	14:58	X	X		X																
580-29110-21	100	T	15:01	X	X		X																
580-29110-22	100	T	15:04	X	X		X																
580-29110-23	100	T	15:07	X	X		X																
ZZZZZZ			15:11																				
ZZZZZZ			15:14																				
ZZZZZZ			15:17																				

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ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: SEA026 Method: 6020

Start Date: 10/19/2011 08:47 End Date: 10/19/2011 15:23

Lab Sample ID	D / F	Type	Time	Analytes																			
				As	Mn	Pb	Sb																
CCV 580-98109/85	1		15:20	X	X	X	X																
CCB 580-98109/86	1		15:23	X	X	X	X																

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 10/18/2011 14:52 End Date: 10/18/2011 23:12

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	Ba	Be	Cd	Co	Cr	Cu	Na	Ni	Pb	Se	Tl	V	Zn					
STD0 580-98033/1 IC	1		14:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
STD1 580-98033/2 IC	1		14:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
STD2 580-98033/3 IC	1		15:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
STD3 580-98033/4 IC	1		15:05	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
STD4 580-98033/5 IC	1		15:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
STD5 580-98033/6 IC	1		15:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICV 580-98033/7	1		15:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICB 580-98033/8	1		15:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CRI 580-98033/9	1		15:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICSA 580-98033/10	1		15:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ICSAB 580-98033/11	1		15:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 580-98033/12	1		16:22	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 580-98033/13	1		16:27	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
MB 580-97966/21-A	10	T	16:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCS 580-97966/22-A	50	T	16:36	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCSD 580-97966/23-A	50	T	16:41	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCSSRM 580-97966/24-A	20	T	16:46	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 580-98033/18	1		16:51	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 580-98033/19	1		16:56	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-1 SD	50	T	17:01	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-1	10	T	17:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-1 DU	10	T	17:10	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-1 MS	50	T	17:15	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-1 MSD	50	T	17:20	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-1 PDS	50	T	17:25	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-2	10	T	17:30	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-3	10	T	17:34	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-4	10	T	17:39	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-5	10	T	17:44	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 580-98033/30	1		17:49	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 580-98033/31	1		17:54	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-6	10	T	17:59	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-7	10	T	18:03	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-8	10	T	18:08	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-9	10	T	18:13	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-10	10	T	18:18	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-11	10	T	18:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 580-98033/38	1		18:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 580-98033/39	1		18:32	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-12	10	T	18:37	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-13	10	T	18:42	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-14	10	T	18:47	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 10/18/2011 14:52 End Date: 10/18/2011 23:12

Lab Sample ID	D/F	Type	Time	Analytes																			
				Ag	Al	Ba	Be	Cd	Co	Cr	Cu	Na	Ni	Pb	Se	Tl	V	Zn					
580-29110-15	10	T	18:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-16	10	T	18:57	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-17	10	T	19:01	X	X	X	X	X	X	X	X	X	X		X	X	X	X					
CCV 580-98033/46	1		19:06	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 580-98033/47	1		19:11	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
MB 580-97974/20-A	10	T	19:16	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCS 580-97974/21-A	50	T	19:21	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCSD 580-97974/22-A	50	T	19:26	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
LCSSRM 580-97974/23-A	20	T	19:31	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 580-98033/52	1		19:35	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 580-98033/53	1		19:40	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-18 SD	50	T	19:45	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-18	10	T	19:50	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-18 DU	10	T	19:55	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-18 MS	50	T	20:00	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-18 MSD	50	T	20:04	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-18 PDS	50	T	20:09	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-19	10	T	20:14	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-20	10	T	20:19	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-21	10	T	20:23	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-22	10	T	20:28	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 580-98033/64	1		20:33	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 580-98033/65	1		20:38	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
580-29110-23	10	T	20:43	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCV 580-98033/67	1		20:48	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
CCB 580-98033/68	1		20:52	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X					
ZZZZZZ			20:57																				
ZZZZZZ			21:02																				
ZZZZZZ			21:07																				
ZZZZZZ			21:21																				
ZZZZZZ			21:26																				
ZZZZZZ			21:31																				
ZZZZZZ			21:36																				
ZZZZZZ			21:40																				
ZZZZZZ			21:45																				
ZZZZZZ			22:00																				
ZZZZZZ			22:04																				
ZZZZZZ			22:09																				
ZZZZZZ			22:14																				
ZZZZZZ			22:19																				
ZZZZZZ			22:24																				
ZZZZZZ			22:28																				

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: SEA044 Method: 6020

Start Date: 10/18/2011 14:52 End Date: 10/18/2011 23:12

Lab Sample ID	D / F	Type	Time	Analytes																			
				Ag	Al	Ba	Be	Cd	Co	Cr	Cu	Na	Ni	Pb	Se	Tl	V	Zn					
ZZZZZZ			22:33																				
ZZZZZZ			22:38																				
CCV 580-98033/87			22:43																				
CCB 580-98033/88			22:48																				
ZZZZZZ			22:53																				
ZZZZZZ			22:57																				
ZZZZZZ			23:02																				
ZZZZZZ			23:07																				
ZZZZZZ			23:12																				

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 10/18/2011 14:29 End Date: 10/18/2011 17:01

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
STD0 580-98059/1 IC			14:29	X																			
STD1 580-98059/2 IC			14:31	X																			
STD2 580-98059/3 IC			14:33	X																			
STD3 580-98059/4 IC			14:35	X																			
STD4 580-98059/5 IC			14:37	X																			
STD5 580-98059/6 IC			14:39	X																			
ICV 580-98059/7	1		14:41	X																			
ICB 580-98059/8	1		14:43	X																			
CCV 580-98059/9	1		14:47	X																			
CCB 580-98059/10	1		14:49	X																			
MB 580-97935/21-A	1	T	14:51	X																			
LCS 580-97935/22-A	1	T	14:53	X																			
LCSD 580-97935/23-A	1	T	14:55	X																			
LCSSRM 580-97935/24-A	10	T	14:57	X																			
580-29110-1	10	T	14:59	X																			
580-29110-1 DU	10	T	15:01	X																			
580-29110-1 MS	10	T	15:03	X																			
580-29110-1 MSD	10	T	15:05	X																			
580-29110-2	10	T	15:07	X																			
580-29110-3	10	T	15:09	X																			
CCV 580-98059/21	1		15:11	X																			
CCB 580-98059/22	1		15:13	X																			
580-29110-4	10	T	15:15	X																			
580-29110-6	10	T	15:18	X																			
580-29110-7	10	T	15:20	X																			
580-29110-9	10	T	15:24	X																			
580-29110-10	10	T	15:26	X																			
580-29110-11	10	T	15:28	X																			
580-29110-12	10	T	15:30	X																			
580-29110-13	10	T	15:32	X																			
CCV 580-98059/31	1		15:34	X																			
CCB 580-98059/32	1		15:36	X																			
580-29110-14	10	T	15:38	X																			
580-29110-16	10	T	15:42	X																			
580-29110-17	10	T	15:44	X																			
CCV 580-98059/36	1		15:46	X																			
CCB 580-98059/37	1		15:48	X																			
MB 580-97946/20-A	1	T	15:50	X																			
LCS 580-97946/21-A	1	T	15:52	X																			
LCSD 580-97946/22-A	1	T	15:54	X																			
LCSSRM 580-97946/23-A	10	T	15:56	X																			
CCV 580-98059/42	1		15:58	X																			

13-IN
ANALYSIS RUN LOG
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: TAC103 Method: 7471A

Start Date: 10/18/2011 14:29 End Date: 10/18/2011 17:01

Lab Sample ID	D / F	Type	Time	Analytes																			
				Hg																			
CCB 580-98059/43	1		16:00	X																			
580-29110-18	10	T	16:02	X																			
580-29110-18 DU	10	T	16:04	X																			
580-29110-18 MS	10	T	16:06	X																			
580-29110-18 MSD	10	T	16:08	X																			
580-29110-19	1	T	16:10	X																			
580-29110-21	1	T	16:14	X																			
580-29110-22	1	T	16:16	X																			
CCV 580-98059/51	1		16:20	X																			
CCB 580-98059/52	1		16:21	X																			
ZZZZZZ			16:25																				
ZZZZZZ			16:28																				
ZZZZZZ			16:30																				
ZZZZZZ			16:32																				
ZZZZZZ			16:33																				
ZZZZZZ			16:35																				
ZZZZZZ			16:37																				
ZZZZZZ			16:39																				
ZZZZZZ			16:41																				
CCV 580-98059/62	1		16:43	X																			
CCB 580-98059/63	1		16:45	X																			
580-29110-5	1	T	16:47	X																			
580-29110-8	1	T	16:49	X																			
580-29110-15	1	T	16:51	X																			
580-29110-20	1	T	16:53	X																			
580-29110-23	1	T	16:55	X																			
ZZZZZZ			16:57																				
CCV 580-98059/70	1		16:59	X																			
CCB 580-98059/71	1		17:01	X																			

Prep Types

T = Total/NA

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICP-MS Instrument ID: SEA026 Start Date: 10/19/2011 End Date: 10/19/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q	Element Lu	Q
STD0 580-98109/1 IC	08:47										
STD1 580-98109/2 IC	08:50										
STD2 580-98109/3 IC	08:53										
STD3 580-98109/4 IC	08:57										
STD4 580-98109/5 IC	09:00										
STD5 580-98109/6 IC	09:03										
CRI 580-98109/7	09:12										
ICSA 580-98109/8	09:15										
ICSAB 580-98109/9	09:19										
ICV 580-98109/10	10:54										
ICB 580-98109/11	10:57										
CCV 580-98109/23	11:34										
CCB 580-98109/24	11:38										
MB 580-97966/21-A	11:41										
580-29110-1 SD	11:44										
580-29110-1	11:47										
580-29110-1 DU	11:50										
580-29110-1 MS	11:53										
580-29110-1 MSD	11:56										
580-29110-1 PDS	12:00										
LCS 580-97966/22-A	12:03										
LCSD 580-97966/23-A	12:06										
LCSSRM	12:09										
CCV 580-98109/35	12:12										
CCB 580-98109/36	12:15										
580-29110-14	12:18										
580-29110-15	12:22										
580-29110-2	12:25										
580-29110-3	12:28										
580-29110-4	12:31										
580-29110-5	12:34										
580-29110-3	12:40										
CCV 580-98109/44	12:50										
CCB 580-98109/45	12:53										
580-29110-6	12:56										
580-29110-7	12:59										
580-29110-8	13:02										
580-29110-9	13:05										
580-29110-10	13:08										
580-29110-9	13:21										
580-29110-10	13:24										
CCV 580-98109/53	13:27										

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY

METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICP-MS Instrument ID: SEA026 Start Date: 10/19/2011 End Date: 10/19/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q	Element Lu	Q
CCB 580-98109/54	13:30										
580-29110-11	13:34										
580-29110-12	13:37										
580-29110-13	13:40										
580-29110-16	13:43										
580-29110-17	13:46										
580-29110-11	13:49										
580-29110-13	13:56										
CCV 580-98109/62	14:05										
CCB 580-98109/63	14:08										
MB 580-97974/20-A	14:11										
580-29110-18 SD	14:15										
580-29110-18	14:18										
580-29110-18 DU	14:21										
580-29110-18 MS	14:24										
580-29110-18 MSD	14:27										
580-29110-18 PDS	14:30										
LCS 580-97974/21-A	14:33										
LCSD 580-97974/22-A	14:36										
LCSSRM	14:39										
CCV 580-98109/74	14:43										
CCB 580-98109/75	14:46										
580-29110-2	14:49										
580-29110-19	14:52										
580-29110-20	14:58										
580-29110-21	15:01										
580-29110-22	15:04										
580-29110-23	15:07										
CCV 580-98109/85	15:20										
CCB 580-98109/86	15:23										

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 10/18/2011 End Date: 10/18/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q
STD0 580-98033/1 IC	14:52	100		100		100		100		100	
STD1 580-98033/2 IC	14:57	99		97		100		101		99	
STD2 580-98033/3 IC	15:01	99		98		101		99		100	
STD3 580-98033/4 IC	15:05	99		97		101		100		99	
STD4 580-98033/5 IC	15:10	98		96		100		100		97	
STD5 580-98033/6 IC	15:14	96		97		101		99		97	
ICV 580-98033/7	15:18	98		97		102		100		98	
ICB 580-98033/8	15:22	101		100		102		103		102	
CRI 580-98033/9	15:27	101		100		102		102		101	
ICSA 580-98033/10	15:31	97		97		101		96		88	
ICSAB 580-98033/11	15:35	98		96		102		97		88	
CCV 580-98033/12	16:22	84		84		96		98		98	
CCB 580-98033/13	16:27	88		86		97		99		101	
MB 580-97966/21-A	16:32					96				101	
LCS 580-97966/22-A	16:36					96				99	
LCSD 580-97966/23-A	16:41					96				99	
LCSSRM	16:46					95				97	
CCV 580-98033/18	16:51	85		85		96		98		96	
CCB 580-98033/19	16:56	87		89		95		100		99	
580-29110-1 SD	17:01	93		99		100				97	
580-29110-1	17:06					95				95	
580-29110-1 DU	17:10					94				95	
580-29110-1 MS	17:15					97				99	
580-29110-1 MSD	17:20					97				99	
580-29110-1 PDS	17:25	90		95		99				99	
580-29110-2	17:30					95				95	
580-29110-3	17:34					90				92	
580-29110-4	17:39					90				91	
580-29110-5	17:44					91				91	
CCV 580-98033/30	17:49	79		79		91		97		96	
CCB 580-98033/31	17:54	82		83		94		97		99	
580-29110-6	17:59					91				93	
580-29110-7	18:03					94				90	
580-29110-8	18:08					94				97	
580-29110-9	18:13					85				89	
580-29110-10	18:18					82				84	
580-29110-11	18:23					86				86	
CCV 580-98033/38	18:28	83		84		92		95		94	
CCB 580-98033/39	18:32	82		85		90		94		97	
580-29110-12	18:37					88				88	
580-29110-13	18:42					87				88	
580-29110-14	18:47					90				95	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 10/18/2011 End Date: 10/18/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Li-6	Q	Element Li-6	Q	Element Sc	Q	Element Ge	Q	Element Rh	Q
580-29110-15	18:52					92				96	
580-29110-16	18:57					89				90	
580-29110-17	19:01					90				91	
CCV 580-98033/46	19:06	79		80		91		94		95	
CCB 580-98033/47	19:11	79		81		90		95		98	
MB 580-97974/20-A	19:16					91				98	
LCS 580-97974/21-A	19:21					89				96	
LCSD 580-97974/22-A	19:26					91				97	
LCSSRM	19:31					91				96	
CCV 580-98033/52	19:35	77		81		91		95		96	
CCB 580-98033/53	19:40	78		78		92		95		99	
580-29110-18 SD	19:45	81		87		93				96	
580-29110-18	19:50					91				90	
580-29110-18 DU	19:55					92				90	
580-29110-18 MS	20:00					92				96	
580-29110-18 MSD	20:04					92				95	
580-29110-18 PDS	20:09	81		87		93				96	
580-29110-19	20:14					90				88	
580-29110-20	20:19					92				92	
580-29110-21	20:23					90				92	
580-29110-22	20:28					91				91	
CCV 580-98033/64	20:33	80		81		93		96		95	
CCB 580-98033/65	20:38	79		80		92		95		97	
580-29110-23	20:43					91				93	
CCV 580-98033/67	20:48	80		80		92		95		95	
CCB 580-98033/68	20:52	78		81		91		96		99	

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ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 10/18/2011 End Date: 10/18/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q	Element	Q
STD0 580-98033/1 IC	14:52	100		100		100					
STD1 580-98033/2 IC	14:57	100		100		100					
STD2 580-98033/3 IC	15:01	101		100		101					
STD3 580-98033/4 IC	15:05	100		100		99					
STD4 580-98033/5 IC	15:10	100		98		97					
STD5 580-98033/6 IC	15:14	98		98		95					
ICV 580-98033/7	15:18	99		100		97					
ICB 580-98033/8	15:22	101		101		100					
CRI 580-98033/9	15:27	101		99		100					
ICSA 580-98033/10	15:31	93		92		83					
ICSAB 580-98033/11	15:35	93		93		85					
CCV 580-98033/12	16:22	100		99		99					
CCB 580-98033/13	16:27	102		102		102					
MB 580-97966/21-A	16:32	102		103							
LCS 580-97966/22-A	16:36	102		102							
LCSD 580-97966/23-A	16:41	102		102							
LCSSRM	16:46	101		102							
CCV 580-98033/18	16:51	102		101		99					
CCB 580-98033/19	16:56	101		101		103					
580-29110-1 SD	17:01	102		102							
580-29110-1	17:06	101		100							
580-29110-1 DU	17:10	102		103							
580-29110-1 MS	17:15	102		103							
580-29110-1 MSD	17:20	101		102							
580-29110-1 PDS	17:25	102		102							
580-29110-2	17:30	100		101							
580-29110-3	17:34	98		97							
580-29110-4	17:39	99		99							
580-29110-5	17:44	99		98							
CCV 580-98033/30	17:49	103		103		101					
CCB 580-98033/31	17:54	103		104		105					
580-29110-6	17:59	101		100							
580-29110-7	18:03	99		97							
580-29110-8	18:08	103		104							
580-29110-9	18:13	95		94							
580-29110-10	18:18	91		90							
580-29110-11	18:23	93		93							
CCV 580-98033/38	18:28	101		102		100					
CCB 580-98033/39	18:32	101		101		103					
580-29110-12	18:37	95		96							
580-29110-13	18:42	95		95							
580-29110-14	18:47	102		102							

FORM XV - IN

15-IN
ICP-MS INTERNAL STANDARDS RELATIVE INTENSITY SUMMARY
METALS

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

ICP-MS Instrument ID: SEA044 Start Date: 10/18/2011 End Date: 10/18/2011

Lab Sample ID	Time	Internal Standards %RI For:									
		Element Ho	Q	Element Lu	Q	Element Bi	Q	Element	Q	Element	Q
580-29110-15	18:52	103		104							
580-29110-16	18:57	100		99							
580-29110-17	19:01	100		100							
CCV 580-98033/46	19:06	102		102		102					
CCB 580-98033/47	19:11	104		104		105					
MB 580-97974/20-A	19:16	103		104							
LCS 580-97974/21-A	19:21	104		105							
LCSD 580-97974/22-A	19:26	104		105							
LCSSRM	19:31	10		103							
CCV 580-98033/52	19:35	104		103		101					
CCB 580-98033/53	19:40	103		105		106					
580-29110-18 SD	19:45	103		104							
580-29110-18	19:50	100		99							
580-29110-18 DU	19:55	99		99							
580-29110-18 MS	20:00	104		103							
580-29110-18 MSD	20:04	102		104							
580-29110-18 PDS	20:09	102		104							
580-29110-19	20:14	99		98							
580-29110-20	20:19	101		101							
580-29110-21	20:23	100		101							
580-29110-22	20:28	100		99							
CCV 580-98033/64	20:33	102		103		100					
CCB 580-98033/65	20:38	103		103		106					
580-29110-23	20:43	101		101							
CCV 580-98033/67	20:48	102		103		102					
CCB 580-98033/68	20:52	104		104		106					

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Calib Blank 1 **Date Collected: 10/19/2011 2:40:47 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:30 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	339998.3	19996.62	5.88%	100.0	%
Sc 361.383	711740.8	41036.35	5.77%	100.00	%
K 766.490†	9.2	1.29	13.99%	[0.00]	mg/L

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: Cal Std #1 00020 **Date Collected: 10/19/2011 2:46:40 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:30 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Std #1 00020

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	354634.8	17175.00	4.84%	104.3	%
Sc 361.383	720335.1	31433.50	4.36%	101.2	%
K 766.490†	81.6	3.24	3.97%	[1.60]	mg/L

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: Cal Std #2 00022 **Date Collected: 10/19/2011 2:52:34 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:30 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Std #2 00022

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	341906.5	14017.25	4.10%	100.6	%
Sc 361.383	748467.4	29467.61	3.94%	105.2	%
K 766.490†	421.7	17.70	4.20%	[8.00]	mg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: Cal Std #3 00020 **Date Collected: 10/19/2011 2:58:32 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:30 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Std #3 00020

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	338799.7	7491.84	2.21%	99.65	%
Sc 361.383	725681.3	29726.64	4.10%	102.0	%
K 766.490†	2136.2	136.17	6.37%	[40.0]	mg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: Cal Std #4 00020 **Date Collected: 10/19/2011 3:03:30 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:30 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: Cal Std #4 00020

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
Lu 261.542	348630.7	4230.05	1.21%	102.5	%
Sc 361.383	725835.4	8621.79	1.19%	102.0	%

K 766.490† 4113.3 148.92 3.62% [80.0] mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
K 766.490	4	Lin Thru 0	0.0	51.82	0.00000	0.999882	

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Sequence No.: 6 **Autosampler Location: 8**
Sample ID: ICV 00018 **Date Collected: 10/19/2011 3:08:32 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:31 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICV 00018

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	371765.1	109.3	%	3.47				3.17%
Sc 361.383	787188.9	110.6	%	4.39				3.97%
K 766.490†	762.3	14.71	mg/L	0.532	14.71	mg/L	0.532	3.62%

QC value within limits for K 766.490 Recovery = 98.07%
All analyte(s) passed QC.

==========

Sequence No.: 7 **Autosampler Location: 1**
Sample ID: ICB **Date Collected: 10/19/2011 3:14:23 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:31 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	357972.3	105.3	%	2.20				2.09%
Sc 361.383	749187.9	105.3	%	2.10				2.00%
K 766.490†	-0.9	-0.0170	mg/L	0.03738	-0.0170	mg/L	0.03738	219.92%

QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

==========

Sequence No.: 8 **Autosampler Location: 9**
Sample ID: ICP RL_00021 **Date Collected: 10/19/2011 3:20:15 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:31 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICP RL_00021

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	381607.9	112.2	%	3.83				3.41%
Sc 361.383	798405.1	112.2	%	3.78				3.37%
K 766.490†	141.4	2.729	mg/L	0.0748	2.729	mg/L	0.0748	2.74%

QC value within limits for K 766.490 Recovery = 82.70%
All analyte(s) passed QC.

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Sequence No.: 9 **Autosampler Location: 5**
Sample ID: HIGH-STD 00021 **Date Collected: 10/19/2011 3:26:09 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:32 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: HIGH-STD 00021

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	340342.2	100.1	%	1.88				1.88%
Sc 361.383	708942.7	99.61	%	1.783				1.79%
K 766.490†	4069.3	78.53	mg/L	1.281	78.53	mg/L	1.281	1.63%

QC value within limits for K 766.490 Recovery = 98.16%
All analyte(s) passed QC.

Sequence No.: 10 **Autosampler Location: 10**
Sample ID: ICSA 00037 **Date Collected: 10/19/2011 3:31:09 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:32 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSA 00037

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	316088.6	92.97	%	1.808				1.95%
Sc 361.383	647087.0	90.92	%	1.639				1.80%
K 766.490†	3.3	0.0628	mg/L	0.03741	0.0628	mg/L	0.03741	59.57%

QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 11 **Autosampler Location: 11**
Sample ID: ICSAB 00029 **Date Collected: 10/19/2011 3:37:09 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:32 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: ICSAB 00029

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	335603.5	98.71	%	0.444				0.45%
Sc 361.383	686158.2	96.41	%	0.479				0.50%
K 766.490†	11576.0	223.4	mg/L	9.18	223.4	mg/L	9.18	4.11%

QC value within limits for K 766.490 Recovery = 89.35%
All analyte(s) passed QC.

Sequence No.: 12 **Autosampler Location: 6**
Sample ID: CCV 00034 **Date Collected: 10/19/2011 7:43:47 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:33 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00034

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	354180.4	104.2	%	2.59				2.49%
Sc 361.383	741477.2	104.2	%	2.57				2.46%
K 766.490†	950.8	18.35	mg/L	0.455	18.35	mg/L	0.455	2.48%

QC value within limits for K 766.490 Recovery = 91.74%
All analyte(s) passed QC.

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 10/19/2011 7:49:33 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:33 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	304853.4	89.66	%	1.179				1.32%
Sc 361.383	642872.2	90.32	%	1.100				1.22%
K 766.490†	1.3	0.0259	mg/L	0.01630	0.0259	mg/L	0.01630	62.91%

QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 14 **Autosampler Location: 27**
Sample ID: MB 580-97966/21-A **Date Collected: 10/19/2011 7:55:25 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:33 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**

Dilution: Sample Prep Vol:

Mean Data: MB 580-97966/21-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	313863.8	92.31	%	4.298				4.66%
Sc 361.383	661439.9	92.93	%	4.215				4.54%
K 766.490†	-0.1	-0.0021	mg/L	0.03464	-0.0021	mg/L	0.03464	>999.9%

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Sequence No.: 15 Autosampler Location: 28
Sample ID: LCS 580-97966/22-A Date Collected: 10/19/2011 8:01:18 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:33 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LCS 580-97966/22-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	274155.7	80.63	%	3.446				4.27%
Sc 361.383	576559.1	81.01	%	3.242				4.00%
K 766.490†	1173.0	22.64	mg/L	0.712	22.64	mg/L	0.712	3.15%

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Sequence No.: 16 Autosampler Location: 29
Sample ID: LCSD 580-97966/23-A Date Collected: 10/19/2011 8:07:09 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:33 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LCSD 580-97966/23-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	301992.7	88.82	%	2.542				2.86%
Sc 361.383	633583.5	89.02	%	2.476				2.78%
K 766.490†	1025.6	19.79	mg/L	0.816	19.79	mg/L	0.816	4.12%

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Sequence No.: 17 Autosampler Location: 30
Sample ID: LCSSRM 580-97966/24-A Date Collected: 10/19/2011 8:13:05 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:34 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LCSSRM 580-97966/24-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	306200.4	90.06	%	4.642				5.15%
Sc 361.383	659383.7	92.64	%	4.641				5.01%
K 766.490†	1102.0	21.27	mg/L	1.176	21.27	mg/L	1.176	5.53%

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Sequence No.: 18 Autosampler Location: 31
Sample ID: 580-29110-A-1-E sd Date Collected: 10/19/2011 8:19:01 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:34 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-1-E sd

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	349806.5	102.9	%	2.97				2.89%
Sc 361.383	726350.7	102.1	%	2.88				2.82%
K 766.490†	239.6	4.623	mg/L	0.1988	4.623	mg/L	0.1988	4.30%

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Sequence No.: 19 Autosampler Location: 32
Sample ID: 580-29110-A-1-E Date Collected: 10/19/2011 8:24:49 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:34 AM
Logged In Analyst (Original) : palmquists

Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-1-E

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	365580.9	107.5	%	1.03				0.96%
Sc 361.383	722034.1	101.4	%	1.01				1.00%
K 766.490†	1193.7	23.04	mg/L	0.143	23.04	mg/L	0.143	0.62%

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Sequence No.: 20 Autosampler Location: 33
Sample ID: 580-29110-A-1-F DU Date Collected: 10/19/2011 8:30:44 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:34 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-1-F DU

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	373393.7	109.8	%	1.75				1.59%
Sc 361.383	714081.9	100.3	%	3.85				3.84%
K 766.490†	983.7	18.98	mg/L	0.313	18.98	mg/L	0.313	1.65%

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Sequence No.: 21 Autosampler Location: 34
Sample ID: 580-29110-A-1-G MS Date Collected: 10/19/2011 8:36:39 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:34 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-1-G MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	339094.2	99.73	%	1.682				1.69%
Sc 361.383	672601.8	94.50	%	1.563				1.65%
K 766.490†	2124.6	41.00	mg/L	1.090	41.00	mg/L	1.090	2.66%

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Sequence No.: 22 Autosampler Location: 35
Sample ID: 580-29110-A-1-H MSD Date Collected: 10/19/2011 8:41:37 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:35 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-1-H MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	356762.3	104.9	%	1.94				1.85%
Sc 361.383	694681.6	97.60	%	1.762				1.81%
K 766.490†	2160.3	41.69	mg/L	1.044	41.69	mg/L	1.044	2.50%

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Sequence No.: 23 Autosampler Location: 36
Sample ID: 580-29110-A-1-E pds Date Collected: 10/19/2011 8:46:38 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:35 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-1-E pds

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	348658.0	102.5	%	2.88				2.80%
Sc 361.383	708194.9	99.50	%	4.660				4.68%
K 766.490†	2089.8	40.33	mg/L	0.693	40.33	mg/L	0.693	1.72%

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Sequence No.: 24 Autosampler Location: 6
Sample ID: CCV 00034 Date Collected: 10/19/2011 8:51:37 PM
Analyst: Data Type: Reprocessed on 10/21/2011 6:22:35 AM

Sequence No.: 29 **Autosampler Location: 40**
Sample ID: 580-29110-A-5-B **Date Collected: 10/19/2011 9:19:34 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:37 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-5-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	413242.2	121.5	%	0.87				0.72%
Sc 361.383	724452.3	101.8	%	2.20				2.16%
K 766.490†	1262.7	24.37	mg/L	0.100	24.37	mg/L	0.100	0.41%

Sequence No.: 30 **Autosampler Location: 41**
Sample ID: 580-29110-A-6-B **Date Collected: 10/19/2011 9:25:34 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:37 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-6-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	403731.4	118.7	%	0.34				0.29%
Sc 361.383	733131.5	103.0	%	3.19				3.10%
K 766.490†	1062.7	20.51	mg/L	0.051	20.51	mg/L	0.051	0.25%

Sequence No.: 31 **Autosampler Location: 42**
Sample ID: 580-29110-A-7-B **Date Collected: 10/19/2011 9:31:35 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:37 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-7-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	425285.1	125.1	%	2.14				1.71%
Sc 361.383	1069959.8	150.3	%	4.62				3.07%
K 766.490†	580.3	11.20	mg/L	0.172	11.20	mg/L	0.172	1.53%

Sequence No.: 32 **Autosampler Location: 43**
Sample ID: 580-29110-A-8-B **Date Collected: 10/19/2011 9:37:35 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:37 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-8-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	329178.4	96.82	%	3.768				3.89%
Sc 361.383	663020.9	93.15	%	3.219				3.46%
K 766.490†	105.0	2.026	mg/L	0.0902	2.026	mg/L	0.0902	4.45%

Sequence No.: 33 **Autosampler Location: 44**
Sample ID: 580-29110-A-9-B **Date Collected: 10/19/2011 9:43:27 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:37 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-9-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	474857.3	139.7	%	2.20				1.57%
Sc 361.383	667687.5	93.81	%	3.330				3.55%

Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00034

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	296699.1	87.26	%	1.985				2.27%
Sc 361.383	623655.0	87.62	%	1.981				2.26%
K 766.490†	1060.3	20.46	mg/L	0.540	20.46	mg/L	0.540	2.64%

QC value within limits for K 766.490 Recovery = 102.30%
All analyte(s) passed QC.

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Sequence No.: 25 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 10/19/2011 8:57:30 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:35 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	316791.5	93.17	%	1.976				2.12%
Sc 361.383	667433.2	93.77	%	1.906				2.03%
K 766.490†	1.2	0.0239	mg/L	0.01920	0.0239	mg/L	0.01920	80.20%

QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

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Sequence No.: 26 **Autosampler Location: 37**
Sample ID: 580-29110-A-2-B **Date Collected: 10/19/2011 9:03:21 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:36 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-2-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	350316.2	103.0	%	2.91				2.83%
Sc 361.383	691362.4	97.14	%	0.783				0.81%
K 766.490†	1187.4	22.91	mg/L	0.717	22.91	mg/L	0.717	3.13%

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Sequence No.: 27 **Autosampler Location: 38**
Sample ID: 580-29110-A-3-B **Date Collected: 10/19/2011 9:09:22 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:36 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-3-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	427262.1	125.7	%	2.93				2.33%
Sc 361.383	710015.4	99.76	%	5.196				5.21%
K 766.490†	2187.8	42.22	mg/L	1.425	42.22	mg/L	1.425	3.37%

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Sequence No.: 28 **Autosampler Location: 39**
Sample ID: 580-29110-A-4-B **Date Collected: 10/19/2011 9:14:30 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:36 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-4-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	413930.4	121.7	%	4.30				3.53%
Sc 361.383	734908.9	103.3	%	2.24				2.17%
K 766.490†	1680.3	32.43	mg/L	0.887	32.43	mg/L	0.887	2.74%

K 766.490†	346.0	6.676	mg/L	0.1398	6.676	mg/L	0.1398 2.09%

Sequence No.: 34 **Autosampler Location: 45**
Sample ID: 580-29110-A-10-B **Date Collected: 10/19/2011 9:49:31 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:37 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-10-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	Saturated2							
Sc 361.383	669581.7	94.08	%	3.173				3.37%
K 766.490†	146.6	2.829	mg/L	0.0123	2.829	mg/L	0.0123	0.44%

Sequence No.: 35 **Autosampler Location: 6**
Sample ID: CCV 00034 **Date Collected: 10/19/2011 9:55:28 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:38 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00034

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	308129.9	90.63	%	1.372				1.51%
Sc 361.383	646620.0	90.85	%	1.325				1.46%
K 766.490†	1009.6	19.48	mg/L	0.322	19.48	mg/L	0.322	1.65%

QC value within limits for K 766.490 Recovery = 97.42%
All analyte(s) passed QC.

Sequence No.: 36 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 10/19/2011 10:01:18 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:38 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	294298.8	86.56	%	1.779				2.05%
Sc 361.383	620401.2	87.17	%	1.752				2.01%
K 766.490†	2.4	0.0470	mg/L	0.06643	0.0470	mg/L	0.06643	141.22%

QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 37 **Autosampler Location: 46**
Sample ID: 580-29110-A-11-B **Date Collected: 10/19/2011 10:07:11 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:38 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-11-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	454146.2	133.6	%	0.69				0.52%
Sc 361.383	659277.1	92.63	%	1.117				1.21%
K 766.490†	793.6	15.31	mg/L	0.069	15.31	mg/L	0.069	0.45%

Sequence No.: 38 **Autosampler Location: 47**
Sample ID: 580-29110-A-12-B **Date Collected: 10/19/2011 10:13:22 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:38 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-12-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	404665.9	119.0	%	4.07				3.42%
Sc 361.383	658678.7	92.54	%	2.110				2.28%
K 766.490†	2216.0	42.76	mg/L	2.372	42.76	mg/L	2.372	5.55%

Sequence No.: 39 **Autosampler Location: 48**
Sample ID: 580-29110-A-13-B **Date Collected: 10/19/2011 10:18:27 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:38 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-13-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	436324.6	128.3	%	3.52				2.75%
Sc 361.383	726668.8	102.1	%	0.91				0.89%
K 766.490†	912.7	17.61	mg/L	0.601	17.61	mg/L	0.601	3.41%

Sequence No.: 40 **Autosampler Location: 49**
Sample ID: 580-29110-A-14-B **Date Collected: 10/19/2011 10:24:31 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:39 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-14-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	333470.4	98.08	%	5.440				5.55%
Sc 361.383	698760.3	98.18	%	5.388				5.49%
K 766.490†	41.2	0.7954	mg/L	0.05505	0.7954	mg/L	0.05505	6.92%

Sequence No.: 41 **Autosampler Location: 50**
Sample ID: 580-29110-A-15-B **Date Collected: 10/19/2011 10:30:24 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:39 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-15-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	323355.7	95.11	%	3.233				3.40%
Sc 361.383	665990.7	93.57	%	2.715				2.90%
K 766.490†	126.1	2.434	mg/L	0.0823	2.434	mg/L	0.0823	3.38%

Sequence No.: 42 **Autosampler Location: 51**
Sample ID: 580-29110-A-16-B **Date Collected: 10/19/2011 10:36:18 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:39 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-16-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	379438.7	111.6	%	2.82				2.53%
Sc 361.383	776492.8	109.1	%	5.15				4.72%
K 766.490†	812.3	15.68	mg/L	0.440	15.68	mg/L	0.440	2.81%

Sequence No.: 43 **Autosampler Location: 52**
Sample ID: 580-29110-A-17-B **Date Collected: 10/19/2011 10:42:16 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:39 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-17-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	394889.1	116.1	%	2.89				2.49%
Sc 361.383	779474.3	109.5	%	1.51				1.38%
K 766.490†	871.1	16.81	mg/L	0.362	16.81	mg/L	0.362	2.15%

Sequence No.: 44 **Autosampler Location: 6**
Sample ID: CCV 00034 **Date Collected: 10/19/2011 10:48:11 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:40 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00034

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	303926.2	89.39	%	2.064				2.31%
Sc 361.383	637597.3	89.58	%	2.017				2.25%
K 766.490†	1035.7	19.99	mg/L	0.458	19.99	mg/L	0.458	2.29%

QC value within limits for K 766.490 Recovery = 99.93%
All analyte(s) passed QC.

Sequence No.: 45 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 10/19/2011 10:53:58 PM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:40 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	324086.6	95.32	%	2.343				2.46%
Sc 361.383	682054.6	95.83	%	2.330				2.43%
K 766.490†	0.5	0.0100	mg/L	0.06017	0.0100	mg/L	0.06017	599.20%

QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 46 **Autosampler Location: 53**
Sample ID: MB 580-97974/20-A **Date Collected: 10/19/2011 10:59:50 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:40 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: MB 580-97974/20-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	297348.9	87.46	%	2.575				2.94%
Sc 361.383	626252.5	87.99	%	2.453				2.79%
K 766.490†	0.8	0.0163	mg/L	0.03459	0.0163	mg/L	0.03459	212.51%

Sequence No.: 47 **Autosampler Location: 54**
Sample ID: LCS 580-97974/21-A **Date Collected: 10/19/2011 11:05:41 PM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:41 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: LCS 580-97974/21-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	297953.3	87.63	%	1.297				1.48%
Sc 361.383	624335.6	87.72	%	1.253				1.43%
K 766.490†	1065.8	20.57	mg/L	0.490	20.57	mg/L	0.490	2.38%

Sequence No.: 48 **Autosampler Location: 55**
Sample ID: LCSD 580-97974/22-A **Date Collected: 10/19/2011 11:11:38 PM**

Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:41 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LCSD 580-97974/22-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	286770.3	84.34	%	3.223				3.82%
Sc 361.383	601323.4	84.49	%	3.136				3.71%
K 766.490†	1113.5	21.49	mg/L	0.852	21.49	mg/L	0.852	3.97%

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Sequence No.: 49 Autosampler Location: 56
Sample ID: LCSSRM 580-97974/23-A Date Collected: 10/19/2011 11:17:26 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:41 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: LCSSRM 580-97974/23-A

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	291145.7	85.63	%	0.809				0.94%
Sc 361.383	628333.7	88.28	%	0.838				0.95%
K 766.490†	1159.5	22.38	mg/L	0.156	22.38	mg/L	0.156	0.70%

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Sequence No.: 50 Autosampler Location: 57
Sample ID: 580-29110-A-18-E sd Date Collected: 10/19/2011 11:23:21 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:41 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-18-E sd

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	322448.1	94.84	%	1.158				1.22%
Sc 361.383	695425.2	97.71	%	1.166				1.19%
K 766.490†	363.7	7.019	mg/L	0.1615	7.019	mg/L	0.1615	2.30%

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Sequence No.: 51 Autosampler Location: 58
Sample ID: 580-29110-A-18-E Date Collected: 10/19/2011 11:29:10 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:41 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-18-E

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	398995.9	117.4	%	2.37				2.02%
Sc 361.383	890527.0	125.1	%	3.07				2.45%
K 766.490†	1361.7	26.28	mg/L	0.682	26.28	mg/L	0.682	2.60%

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Sequence No.: 52 Autosampler Location: 59
Sample ID: 580-29110-A-18-F DU Date Collected: 10/19/2011 11:35:09 PM
Analyst: SEA027/SN069N9042002 Data Type: Reprocessed on 10/21/2011 6:22:42 AM
Logged In Analyst (Original) : palmquists
Initial Sample Wt: Initial Sample Vol:
Dilution: Sample Prep Vol:

Mean Data: 580-29110-A-18-F DU

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	379273.0	111.6	%	2.99				2.68%
Sc 361.383	877912.3	123.3	%	2.18				1.76%
K 766.490†	1370.6	26.45	mg/L	0.817	26.45	mg/L	0.817	3.09%

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Sequence No.: 53 Autosampler Location: 60

Sample ID: 580-29110-A-18-G MS
Analyst: SEA027/SN069N9042002
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Date Collected: 10/19/2011 11:41:12 PM
Data Type: Reprocessed on 10/21/2011 6:22:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 580-29110-A-18-G MS

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	377137.6	110.9	%	1.37				1.24%
Sc 361.383	867301.7	121.9	%	0.87				0.71%
K 766.490†	1987.5	38.35	mg/L	1.817	38.35	mg/L	1.817	4.74%

Sequence No.: 54
Sample ID: 580-29110-A-18-H MSD
Analyst: SEA027/SN069N9042002
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Autosampler Location: 61
Date Collected: 10/19/2011 11:46:15 PM
Data Type: Reprocessed on 10/21/2011 6:22:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 580-29110-A-18-H MSD

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	377370.4	111.0	%	2.46				2.22%
Sc 361.383	859478.4	120.8	%	4.18				3.46%
K 766.490†	1979.9	38.21	mg/L	1.192	38.21	mg/L	1.192	3.12%

Sequence No.: 55
Sample ID: 580-29110-A-18-E pds
Analyst: SEA027/SN069N9042002
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Autosampler Location: 62
Date Collected: 10/19/2011 11:51:19 PM
Data Type: Reprocessed on 10/21/2011 6:22:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: 580-29110-A-18-E pds

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	384529.3	113.1	%	1.55				1.37%
Sc 361.383	898023.4	126.2	%	1.39				1.10%
K 766.490†	2184.8	42.16	mg/L	1.211	42.16	mg/L	1.211	2.87%

Sequence No.: 56
Sample ID: CCV 00034
Analyst:
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Autosampler Location: 6
Date Collected: 10/19/2011 11:56:23 PM
Data Type: Reprocessed on 10/21/2011 6:22:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCV 00034

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	310670.9	91.37	%	4.425				4.84%
Sc 361.383	651399.8	91.52	%	4.285				4.68%
K 766.490†	1001.5	19.33	mg/L	1.043	19.33	mg/L	1.043	5.40%

QC value within limits for K 766.490 Recovery = 96.63%
All analyte(s) passed QC.

Sequence No.: 57
Sample ID: CCB
Analyst:
Logged In Analyst (Original) : palmquists
Initial Sample Wt:
Dilution:
Autosampler Location: 7
Date Collected: 10/20/2011 12:02:10 AM
Data Type: Reprocessed on 10/21/2011 6:22:42 AM
Initial Sample Vol:
Sample Prep Vol:

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	300858.8	88.49	%	4.581				5.18%
Sc 361.383	634553.6	89.16	%	4.574				5.13%
K 766.490†	1.8	0.0352	mg/L	0.03787	0.0352	mg/L	0.03787	107.66%

QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

Sequence No.: 58 **Autosampler Location: 63**
Sample ID: 580-29110-A-19-B **Date Collected: 10/20/2011 12:08:03 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:43 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-19-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	402780.9	118.5	%	3.60				3.04%
Sc 361.383	930773.0	130.8	%	0.86				0.65%
K 766.490†	1178.1	22.73	mg/L	0.778	22.73	mg/L	0.778	3.42%

Sequence No.: 59 **Autosampler Location: 64**
Sample ID: 580-29110-A-20-B **Date Collected: 10/20/2011 12:14:10 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:43 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-20-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	332840.6	97.89	%	1.618				1.65%
Sc 361.383	708705.7	99.57	%	1.618				1.62%
K 766.490†	885.2	17.08	mg/L	0.271	17.08	mg/L	0.271	1.59%

Sequence No.: 60 **Autosampler Location: 65**
Sample ID: 580-29110-A-21-B **Date Collected: 10/20/2011 12:20:01 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:43 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-21-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	354035.4	104.1	%	1.03				0.99%
Sc 361.383	772871.3	108.6	%	2.79				2.57%
K 766.490†	1191.3	22.99	mg/L	0.213	22.99	mg/L	0.213	0.93%

Sequence No.: 61 **Autosampler Location: 66**
Sample ID: 580-29110-A-22-B **Date Collected: 10/20/2011 12:26:00 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:43 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-22-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	366102.8	107.7	%	1.34				1.25%
Sc 361.383	795563.0	111.8	%	1.38				1.23%
K 766.490†	1312.1	25.32	mg/L	0.414	25.32	mg/L	0.414	1.63%

Sequence No.: 62 **Autosampler Location: 67**
Sample ID: 580-29110-A-23-B **Date Collected: 10/20/2011 12:31:53 AM**
Analyst: SEA027/SN069N9042002 **Data Type: Reprocessed on 10/21/2011 6:22:44 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: 580-29110-A-23-B

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD

Lu 261.542	335746.7	98.75	%	2.378			2.41%
Sc 361.383	719266.0	101.1	%	2.25			2.22%
K 766.490†	928.0	17.91	mg/L	0.370	17.91 mg/L	0.370	2.07%

Sequence No.: 63 **Autosampler Location: 6**
Sample ID: CCV 00034 **Date Collected: 10/20/2011 12:37:44 AM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:44 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCV 00034

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	308101.9	90.62	%	3.474				3.83%
Sc 361.383	645279.8	90.66	%	3.360				3.71%
K 766.490†	1021.8	19.72	mg/L	0.811	19.72	mg/L	0.811	4.11%

QC value within limits for K 766.490 Recovery = 98.59%
All analyte(s) passed QC.

Sequence No.: 64 **Autosampler Location: 7**
Sample ID: CCB **Date Collected: 10/20/2011 12:43:33 AM**
Analyst: **Data Type: Reprocessed on 10/21/2011 6:22:44 AM**
Logged In Analyst (Original) : palmquists
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
Lu 261.542	305286.4	89.79	%	2.248				2.50%
Sc 361.383	642818.8	90.32	%	2.216				2.45%
K 766.490†	0.0	0.0002	mg/L	0.03974	0.0002	mg/L	0.03974	>999.9%

QC value within limits for K 766.490 Recovery = Not calculated
All analyte(s) passed QC.

Sample Name: Blank Acquired: 10/18/2011 16:06:20 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0045**	**-.0022**	**.0004**	**-.0002**
Stddev	.0002	.0008	.0009	.0001
%RSD	4.598	36.37	234.2	37.41
#1	.0043	-.0013	-.0003	-.0002
#2	.0047	-.0028	.0001	-.0002
#3	.0047	-.0025	.0013	-.0003

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2693.2**	**23394.**	**1790.9**	**3401.4**
Stddev	3.2	51.	4.1	6.3
%RSD	.12018	.21671	.22634	.18581
#1	2690.7	23379.	1792.3	3402.0
#2	2692.0	23353.	1794.0	3407.4
#3	2696.8	23451.	1786.3	3394.8

Sample Name: 580-29110-A-1-E Acquired: 10/18/2011 18:11:29 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**3.015**	**.1480**	**6.863**	**.7630**
Stddev	.288	.0200	.261	.0055
%RSD	9.557	13.52	3.805	.7217
#1	2.691	.1711	6.566	.7658
#2	3.244	.1366	6.967	.7664
#3	3.109	.1364	7.056	.7566
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2650.2**	**23937.**	**1722.5**	**3232.7**
Stddev	5.3	10.	30.3	50.4
%RSD	.20041	.04101	1.7565	1.5602
#1	2644.5	23937.	1756.1	3290.9
#2	2654.9	23947.	1713.9	3206.0
#3	2651.3	23928.	1697.5	3201.3

Sample Name: CalibStd1 00021 Acquired: 10/18/2011 16:12:19 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0087**	**.0272**	**.0223**	**.0794**
Stddev	.0009	.0006	.0004	.0007
%RSD	10.40	2.385	1.746	.8374
#1	.0096	.0268	.0220	.0788
#2	.0078	.0268	.0227	.0791
#3	.0088	.0279	.0223	.0801
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2633.7**	**23282.**	**1808.0**	**3445.0**
Stddev	15.1	180.	15.3	22.3
%RSD	.57463	.77522	.84717	.64666
#1	2647.8	23456.	1824.9	3468.7
#2	2635.7	23292.	1804.1	3441.9
#3	2617.7	23096.	1795.0	3424.5

Sample Name: 580-29110-A-6-B Acquired: 10/18/2011 20:18:53 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**108.8**	**10.36**	**1092.**	**49.04**
Stddev	1.2	.09	5.	.13
%RSD	1.126	.8453	.4935	.2549
#1	107.8	10.40	1087.	48.90
#2	108.5	10.26	1092.	49.11
#3	110.2	10.42	1098.	49.13
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1751.0**	**21933.**	**1210.1**	**2348.6**
Stddev	6.5	59.	4.7	9.0
%RSD	.36941	.26841	.38935	.38430
#1	1758.0	21991.	1214.4	2355.8
#2	1749.8	21935.	1210.8	2351.5
#3	1745.3	21873.	1205.0	2338.5

Sample Name: 580-29110-A-10-B Acquired: 10/18/2011 21:28:43 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	1.737	.4999	42.51	.2774
Stddev	.234	.0075	1.01	.0011
%RSD	13.49	1.498	2.377	.3806
#1	1.473	.5070	41.76	.2784
#2	1.922	.4921	42.10	.2774
#3	1.814	.5006	43.66	.2763
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2581.6	23358.	826.19	1566.8
Stddev	14.6	140.	13.97	30.2
%RSD	.56381	.59910	1.6913	1.9302
#1	2566.2	23210.	841.30	1601.5
#2	2583.5	23376.	823.54	1546.1
#3	2595.1	23488.	813.74	1552.9

Sample Name: 580-29110-A-15-B Acquired: 10/18/2011 22:36:39 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**98.17**	**12.09**	**192.1**	**9.837**
Stddev	3.48	.57	7.8	.130
%RSD	3.550	4.682	4.071	1.326
#1	94.15	11.45	183.1	9.977
#2	100.2	12.33	197.2	9.814
#3	100.2	12.50	196.0	9.720
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2313.2**	**22731.**	**684.91**	**1295.8**
Stddev	8.4	111.	22.59	43.3
%RSD	.36311	.48948	3.2982	3.3431
#1	2307.9	22633.	710.92	1345.2
#2	2308.8	22708.	670.25	1278.0
#3	2322.8	22852.	673.55	1264.2

Sample Name: CalibStd-2 00023 Acquired: 10/18/2011 16:18:07 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0221**	**.1372**	**.1092**	**.3805**
Stddev	.0008	.0005	.0014	.0006
%RSD	3.682	.3548	1.308	.1593
#1	.0221	.1367	.1083	.3810
#2	.0229	.1371	.1108	.3806
#3	.0212	.1377	.1084	.3798

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2531.9**	**23313.**	**1750.0**	**3383.8**
Stddev	4.5	93.	15.0	34.0
%RSD	.17595	.39858	.85936	1.0061
#1	2528.2	23229.	1767.4	3423.1
#2	2530.8	23298.	1741.2	3363.2
#3	2536.9	23413.	1741.5	3365.1

Sample Name: CalibStd-3 00021 Acquired: 10/18/2011 16:23:42 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0908	.6957	.5410	1.841
Stddev	.0019	.0098	.0030	.003
%RSD	2.074	1.409	.5566	.1762
#1	.0912	.7062	.5437	1.842
#2	.0924	.6939	.5416	1.838
#3	.0887	.6869	.5377	1.844
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2303.6	22749.	1749.4	3341.3
Stddev	5.8	41.	17.4	36.7
%RSD	.25260	.17870	.99188	1.0990
#1	2299.3	22729.	1732.9	3304.9
#2	2310.3	22796.	1747.9	3340.8
#3	2301.4	22722.	1767.5	3378.3

Sample Name: CalibStd-4 00021 Acquired: 10/18/2011 16:29:15 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.1725	1.333	1.048	3.553
Stddev	.0028	.007	.006	.025
%RSD	1.603	.5243	.5547	.7176
#1	.1741	1.339	1.047	3.576
#2	.1740	1.335	1.054	3.556
#3	.1693	1.326	1.042	3.526
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2121.5	21965.	1725.2	3363.9
Stddev	3.8	11.	8.1	22.7
%RSD	.17679	.05061	.47219	.67577
#1	2125.0	21952.	1722.6	3344.6
#2	2122.0	21968.	1718.7	3358.3
#3	2117.5	21974.	1734.3	3389.0

Sample Name: ICV 200.7 00018 Acquired: 10/18/2011 16:34:46 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**4.933**	**5.219**	**4.947**	**5.129**
Stddev	.158	.040	.028	.021
%RSD	3.204	.7704	.5739	.4124
#1	5.105	5.208	4.976	5.110
#2	4.899	5.263	4.920	5.152
#3	4.795	5.185	4.946	5.127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2494.5**	**23475.**	**1805.0**	**3403.2**
Stddev	11.5	57.	3.9	6.1
%RSD	.45913	.24436	.21474	.17942
#1	2507.1	23515.	1802.8	3405.1
#2	2484.7	23409.	1802.7	3408.0
#3	2491.7	23500.	1809.5	3396.3

Sample Name: ICB_CCB Acquired: 10/18/2011 16:42:49 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	-.1079	.0758	-.0018	.0246
Stddev	.4701	.0275	.0224	.0014
%RSD	435.7	36.22	1276.	5.522
#1	-.2569	.0514	.0242	.0261
#2	-.4853	.0706	-.0145	.0243
#3	.4186	.1056	-.0150	.0235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2698.4	23556.	1777.5	3422.2
Stddev	7.0	46.	15.0	33.5
%RSD	.25868	.19325	.84382	.97892
#1	2690.4	23504.	1791.0	3450.5
#2	2702.8	23575.	1780.0	3431.0
#3	2702.1	23589.	1761.4	3385.2

Sample Name: CRI 00021 Acquired: 10/18/2011 16:48:50 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**.4515**	**1.171**	**.2047**	**1.191**
Stddev	.2152	.064	.0268	.010
%RSD	47.66	5.463	13.09	.8717
#1	.3505	1.101	.1738	1.199
#2	.6985	1.187	.2215	1.194
#3	.3053	1.226	.2187	1.179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2622.4**	**23443.**	**1810.5**	**3428.2**
Stddev	11.5	112.	4.8	19.9
%RSD	.43774	.47866	.26293	.58057
#1	2615.9	23360.	1809.7	3415.5
#2	2615.5	23398.	1815.6	3451.2
#3	2635.6	23570.	1806.2	3418.1

Sample Name: HIGH STD 00021 Acquired: 10/18/2011 16:57:16 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	F **37.45**	**76.97**	**38.26**	**78.73**
Stddev	.71	.84	.08	.87
%RSD	1.901	1.088	.2084	1.099
#1	38.27	76.84	38.34	79.73
#2	37.12	77.86	38.18	78.20
#3	36.96	76.20	38.26	78.27
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value	40.00			
Range	-5.000%			
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2138.7**	**22164.**	**1771.4**	**3416.4**
Stddev	21.6	299.	12.3	30.8
%RSD	1.0079	1.3482	.69217	.90059
#1	2113.8	21820.	1761.2	3423.3
#2	2152.3	22326.	1768.0	3382.8
#3	2150.0	22348.	1785.0	3443.1

Sample Name: ICSA 00037 Acquired: 10/18/2011 17:05:18 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**502.5**	**487.6**	**191.6**	**494.2**
Stddev	.2	.6	.5	2.2
%RSD	.0422	.1263	.2671	.4495
#1	502.4	487.1	191.0	494.4
#2	502.8	488.3	191.9	491.9
#3	502.4	487.4	191.9	496.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1945.6**	**21057.**	**1709.6**	**3289.4**
Stddev	7.1	41.	7.4	11.0
%RSD	.36669	.19283	.43559	.33316
#1	1937.4	21013.	1704.0	3282.7
#2	1950.3	21094.	1706.8	3283.5
#3	1949.2	21063.	1718.1	3302.0

Sample Name: ICSAB 00029 Acquired: 10/18/2011 17:13:50 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**501.1**	**494.3**	**191.1**	**489.8**
Stddev	4.6	2.3	2.0	5.0
%RSD	.9117	.4588	1.036	1.015
#1	501.2	491.7	191.1	495.4
#2	496.5	495.8	189.2	485.9
#3	505.7	495.4	193.2	488.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1819.1**	**20573.**	**1668.2**	**3161.5**
Stddev	6.9	54.	15.1	24.4
%RSD	.37921	.26329	.90756	.77213
#1	1811.4	20516.	1675.4	3189.6
#2	1824.7	20579.	1678.4	3146.0
#3	1821.1	20624.	1650.8	3148.8

Sample Name: CCV 00034 Acquired: 10/18/2011 17:19:34 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**9.866**	**20.07**	**9.988**	**20.65**
Stddev	.021	.16	.064	.14
%RSD	.2127	.7918	.6366	.6605
#1	9.869	19.90	10.01	20.77
#2	9.886	20.21	10.04	20.67
#3	9.844	20.11	9.916	20.50
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2421.7**	**23234.**	**1736.3**	**3337.3**
Stddev	8.8	109.	16.4	18.2
%RSD	.36359	.46988	.94545	.54642
#1	2412.7	23121.	1717.4	3319.1
#2	2422.0	23243.	1745.7	3337.3
#3	2430.3	23339.	1745.9	3355.6

Sample Name: ICB_CCB Acquired: 10/18/2011 17:25:07 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	-.2536	.1897	.0456	.0930
Stddev	.1970	.0283	.0326	.0166
%RSD	77.68	14.90	71.49	17.83
#1	-.0269	.2026	.0815	.1092
#2	-.3505	.2093	.0373	.0938
#3	-.3835	.1573	.0179	.0761
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2718.3	23777.	1722.8	3298.9
Stddev	6.3	100.	6.4	19.3
%RSD	.23266	.42061	.37282	.58431
#1	2716.7	23722.	1725.4	3298.7
#2	2712.9	23717.	1715.5	3279.7
#3	2725.3	23893.	1727.5	3318.3

Sample Name: MB 580-97966/21-A Acquired: 10/18/2011 17:31:08 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	-.4237	.0937	.0557	.0460
Stddev	.3469	.0049	.0147	.0136
%RSD	81.88	5.281	26.29	29.71
#1	-.8172	.0913	.0721	.0602
#2	-.2913	.0904	.0439	.0446
#3	-.1625	.0994	.0512	.0330
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2659.5	23261.	1691.4	3275.5
Stddev	11.2	56.	2.7	24.0
%RSD	.42071	.24144	.16150	.73224
#1	2672.2	23324.	1688.3	3248.5
#2	2651.2	23215.	1692.6	3283.4
#3	2655.0	23245.	1693.4	3294.5

Sample Name: LCS 580-97966/22-A Acquired: 10/18/2011 17:37:10 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**3.801**	**20.17**	**22.39**	**19.84**
Stddev	.107	.12	.23	.19
%RSD	2.802	.5922	1.025	.9696
#1	3.923	20.06	22.19	20.02
#2	3.725	20.29	22.64	19.87
#3	3.755	20.14	22.33	19.64
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2340.0**	**22955.**	**1659.8**	**3234.8**
Stddev	12.5	137.	6.2	14.2
%RSD	.53412	.59829	.37276	.43767
#1	2326.8	22819.	1663.4	3231.2
#2	2341.7	22954.	1652.6	3222.7
#3	2351.6	23093.	1663.3	3250.3

Sample Name: LCSD 580-97966/23-A Acquired: 10/18/2011 17:42:46 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	4.032	19.69	21.69	19.89
Stddev	.084	.32	.26	.05
%RSD	2.073	1.638	1.216	.2355
#1	3.966	19.32	21.39	19.91
#2	4.126	19.80	21.89	19.93
#3	4.005	19.94	21.78	19.84
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2316.7	22896.	1697.5	3312.2
Stddev	7.0	38.	8.6	26.8
%RSD	.30293	.16812	.50634	.80805
#1	2311.2	22869.	1704.7	3339.3
#2	2314.3	22879.	1688.0	3285.8
#3	2324.6	22940.	1699.8	3311.6

Sample Name: LCSSRM 580-97966/24- Acquired: 10/18/2011 17:48:21 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**50.49**	**67.52**	**96.51**	**23.46**
Stddev	.32	.19	.31	.13
%RSD	.6402	.2757	.3178	.5725
#1	50.77	67.61	96.71	23.53
#2	50.14	67.31	96.16	23.54
#3	50.58	67.65	96.65	23.30
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2351.1**	**24236.**	**1788.1**	**3450.3**
Stddev	4.7	82.	14.7	28.2
%RSD	.20129	.33724	.82332	.81647
#1	2351.4	24186.	1789.5	3449.7
#2	2346.1	24191.	1802.0	3478.7
#3	2355.6	24330.	1772.7	3422.4

Sample Name: 580-29110-A-1-E sd Acquired: 10/18/2011 17:54:02 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/5 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**61.74**	**2.074**	**134.5**	**13.72**
Stddev	.34	.018	.7	.02
%RSD	.5456	.8644	.5232	.1667
#1	61.84	2.061	133.7	13.74
#2	62.01	2.094	134.8	13.70
#3	61.36	2.067	134.9	13.72
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2446.7**	**24508.**	**1752.5**	**3324.2**
Stddev	1.8	56.	8.4	27.8
%RSD	.07238	.22676	.47669	.83595
#1	2445.1	24520.	1760.3	3346.4
#2	2448.6	24556.	1743.7	3293.0
#3	2446.4	24447.	1753.5	3333.1

Sample Name: 580-29110-A-1-E sd Acquired: 10/18/2011 17:59:51 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/500 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	.4928	.0239	1.322	.1483
Stddev	.1238	.0217	.030	.0006
%RSD	25.11	90.57	2.266	.3953
#1	.6327	.0072	1.336	.1483
#2	.4482	.0162	1.343	.1477
#3	.3975	.0484	1.288	.1489
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2673.8	24274.	1713.9	3244.7
Stddev	18.3	170.	32.7	52.6
%RSD	.68616	.69981	1.9051	1.6210
#1	2682.2	24309.	1702.8	3217.1
#2	2686.5	24423.	1688.2	3211.8
#3	2652.8	24089.	1750.6	3305.4

Sample Name: 580-29110-A-1-E Acquired: 10/18/2011 18:05:50 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**287.4**	**9.202**	**581.4**	**64.12**
Stddev	1.1	.070	3.3	.23
%RSD	.3814	.7578	.5646	.3525
#1	288.0	9.232	584.6	64.36
#2	288.0	9.252	581.5	63.92
#3	286.1	9.122	578.1	64.08
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2006.1**	**23882.**	**1817.0**	**3424.4**
Stddev	8.4	100.	4.5	9.8
%RSD	.41977	.41823	.24731	.28726
#1	1996.3	23767.	1811.8	3416.4
#2	2010.6	23950.	1819.5	3435.4
#3	2011.3	23928.	1819.6	3421.4

Sample Name: 580-29110-A-1-F DU Acquired: 10/18/2011 18:17:28 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**268.1**	**7.940**	**564.2**	**55.36**
Stddev	2.3	.099	5.4	.48
%RSD	.8406	1.249	.9614	.8633
#1	265.5	7.841	558.0	55.64
#2	269.1	8.040	566.9	55.62
#3	269.7	7.938	567.8	54.80
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2037.5**	**23620.**	**1728.5**	**3294.3**
Stddev	9.8	179.	20.1	34.3
%RSD	.47981	.75903	1.1655	1.0407
#1	2028.3	23475.	1748.3	3331.0
#2	2036.4	23565.	1729.1	3288.7
#3	2047.7	23821.	1708.1	3263.2

Sample Name: 580-29110-A-1-F DU Acquired: 10/18/2011 18:23:08 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**2.535**	**.1471**	**6.408**	**.6505**
Stddev	.218	.0575	.032	.0019
%RSD	8.603	39.10	.4999	.2967
#1	2.290	.1638	6.444	.6520
#2	2.709	.1944	6.382	.6512
#3	2.605	.0831	6.398	.6483
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2665.6**	**24055.**	**1636.6**	**3182.6**
Stddev	10.2	77.	8.9	10.3
%RSD	.38277	.32161	.54124	.32224
#1	2655.3	23975.	1646.8	3191.1
#2	2665.8	24060.	1631.4	3171.2
#3	2675.7	24130.	1631.5	3185.6

Sample Name: CCV Acquired: 10/18/2011 18:29:07 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**9.683**	**20.28**	**10.00**	**20.07**
Stddev	.524	.45	.37	.13
%RSD	5.408	2.217	3.682	.6383
#1	9.584	19.85	9.592	19.92
#2	9.215	20.25	10.10	20.13
#3	10.25	20.75	10.31	20.15
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2417.4**	**23208.**	**1624.7**	**3100.9**
Stddev	10.3	120.	43.7	67.0
%RSD	.42648	.51888	2.6899	2.1618
#1	2428.2	23347.	1667.5	3158.3
#2	2416.4	23140.	1626.5	3117.3
#3	2407.6	23137.	1580.1	3027.2

Sample Name: CCB Acquired: 10/18/2011 18:37:11 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**-.1498**	**.0109**	**-.0081**	**.0040**
Stddev	.0592	.0061	.0177	.0018
%RSD	39.55	56.04	217.4	45.88
#1	-.1126	.0106	-.0172	.0035
#2	-.2181	.0049	.0122	.0025
#3	-.1186	.0171	-.0194	.0060
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2674.1**	**23531.**	**1606.5**	**3077.4**
Stddev	4.9	49.	13.3	25.4
%RSD	.18353	.20919	.82994	.82676
#1	2668.5	23565.	1592.7	3051.7
#2	2677.4	23552.	1619.3	3102.6
#3	2676.4	23474.	1607.4	3078.0

Sample Name: 580-29110-A-1-G MS Acquired: 10/18/2011 18:43:14 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**293.9**	**28.86**	**574.1**	**78.12**
Stddev	.5	.13	3.3	.27
%RSD	.1840	.4362	.5824	.3450
#1	293.2	28.74	571.3	77.93
#2	294.2	28.86	573.4	78.43
#3	294.2	28.99	577.8	78.00
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1892.6**	**22796.**	**1677.4**	**3188.3**
Stddev	4.1	101.	13.6	18.7
%RSD	.21634	.44227	.81300	.58523
#1	1897.2	22912.	1684.8	3202.0
#2	1891.0	22733.	1685.7	3195.9
#3	1889.5	22743.	1661.7	3167.1

Sample Name: 580-29110-A-1-G MS Acquired: 10/18/2011 18:48:47 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	3.303	.2972	6.374	.8684
Stddev	.247	.0291	.056	.0051
%RSD	7.491	9.787	.8717	.5888
#1	3.458	.3299	6.427	.8727
#2	3.018	.2741	6.316	.8699
#3	3.433	.2877	6.379	.8628
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2668.1	23628.	1565.8	3029.7
Stddev	11.3	151.	20.4	42.6
%RSD	.42292	.63977	1.3020	1.4057
#1	2659.4	23500.	1543.6	2980.6
#2	2664.0	23589.	1583.6	3057.0
#3	2680.9	23795.	1570.3	3051.5

Sample Name: 580-29110-A-1-H MSD Acquired: 10/18/2011 18:54:47 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**319.3**	**28.77**	**642.3**	**81.86**
Stddev	2.5	.24	3.9	.21
%RSD	.7778	.8499	.6070	.2540
#1	317.0	28.49	638.3	81.99
#2	321.9	28.87	646.1	81.96
#3	319.0	28.94	642.5	81.62
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1848.9**	**22840.**	**1657.8**	**3184.7**
Stddev	2.0	50.	16.0	47.3
%RSD	.10987	.21977	.96454	1.4863
#1	1850.6	22807.	1675.7	3233.2
#2	1849.6	22815.	1652.8	3182.4
#3	1846.7	22898.	1645.0	3138.6

Sample Name: 580-29110-A-1-H MSD Acquired: 10/18/2011 19:00:19 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**3.131**	**.3744**	**7.496**	**.9682**
Stddev	.310	.0355	.077	.0060
%RSD	9.891	9.473	1.034	.6153
#1	2.776	.4150	7.426	.9615
#2	3.346	.3492	7.484	.9703
#3	3.270	.3591	7.579	.9728
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2635.6**	**23556.**	**1580.5**	**3021.8**
Stddev	17.4	166.	9.3	21.4
%RSD	.65968	.70448	.58604	.70912
#1	2654.0	23729.	1587.2	3029.6
#2	2633.4	23540.	1584.3	3038.3
#3	2619.4	23398.	1569.9	2997.6

Sample Name: 580-29110-A-1-E pds Acquired: 10/18/2011 19:06:18 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**281.2**	**28.02**	**566.3**	**79.63**
Stddev	2.7	.13	5.8	.30
%RSD	.9766	.4649	1.030	.3723
#1	278.3	27.96	560.1	79.96
#2	283.7	27.94	567.2	79.51
#3	281.5	28.17	571.7	79.40
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1903.9**	**23017.**	**1605.6**	**3058.5**
Stddev	8.6	59.	33.4	66.3
%RSD	.45412	.25753	2.0803	2.1692
#1	1897.3	22964.	1635.1	3101.2
#2	1900.8	23007.	1612.3	3092.2
#3	1913.7	23081.	1569.3	2982.0

Sample Name: 580-29110-A-1-E pds Acquired: 10/18/2011 19:11:50 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	2.992	.4160	6.985	.9728
Stddev	.150	.0183	.101	.0059
%RSD	5.005	4.401	1.448	.6100
#1	2.900	.4093	6.931	.9664
#2	3.165	.4020	6.923	.9782
#3	2.911	.4367	7.102	.9737
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2629.6	23503.	1496.6	2880.9
Stddev	10.6	81.	28.6	62.3
%RSD	.40268	.34567	1.9093	2.1624
#1	2641.4	23578.	1528.6	2949.0
#2	2621.1	23417.	1487.2	2866.6
#3	2626.2	23515.	1473.9	2826.9

Sample Name: 580-29110-A-2-B Acquired: 10/18/2011 19:17:48 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**243.7**	**7.397**	**639.6**	**73.75**
Stddev	1.0	.097	2.3	.56
%RSD	.4062	1.305	.3637	.7580
#1	244.7	7.422	641.5	73.17
#2	243.5	7.478	640.2	73.79
#3	242.8	7.290	637.0	74.29
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1987.9**	**22714.**	**1499.9**	**2891.0**
Stddev	5.2	125.	6.2	15.9
%RSD	.26212	.54850	.41615	.55145
#1	1993.9	22836.	1494.5	2886.7
#2	1985.4	22719.	1498.6	2877.6
#3	1984.5	22587.	1506.8	2908.6

Sample Name: 580-29110-A-2-B Acquired: 10/18/2011 19:23:29 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**2.255**	**.0698**	**7.070**	**.8256**
Stddev	.269	.0270	.059	.0304
%RSD	11.94	38.64	.8399	3.677
#1	2.271	.0447	7.035	.8603
#2	1.978	.0664	7.037	.8126
#3	2.516	.0983	7.139	.8039
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2588.5**	**22934.**	**1478.2**	**2865.0**
Stddev	56.1	573.	5.0	31.0
%RSD	2.1680	2.4989	.33944	1.0807
#1	2524.3	22279.	1483.9	2890.8
#2	2612.5	23181.	1474.5	2830.7
#3	2628.6	23342.	1476.2	2873.7

Sample Name: 580-29110-A-3-B Acquired: 10/18/2011 19:29:28 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**147.9**	**13.55**	**1545.**	**80.25**
Stddev	5.1	.43	47.	.22
%RSD	3.422	3.181	3.037	.2740
#1	142.1	13.08	1491.	80.39
#2	151.0	13.91	1570.	80.36
#3	150.8	13.68	1574.	80.00
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1397.3**	**22471.**	**1498.5**	**2939.1**
Stddev	8.0	56.	36.3	68.9
%RSD	.56985	.24880	2.4246	2.3438
#1	1389.3	22429.	1539.8	3016.0
#2	1397.3	22449.	1484.7	2883.0
#3	1405.3	22534.	1471.2	2918.2

Sample Name: 580-29110-A-3-B Acquired: 10/18/2011 19:35:23 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	1.489	.2190	20.96	.9868
Stddev	.250	.0606	.15	.0056
%RSD	16.82	27.65	.7047	.5646
#1	1.643	.1818	20.80	.9816
#2	1.200	.1863	21.09	.9862
#3	1.623	.2889	20.99	.9927
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2604.9	23224.	1358.2	2612.3
Stddev	6.5	24.	4.8	17.8
%RSD	.25104	.10520	.35645	.68304
#1	2597.4	23232.	1361.4	2629.3
#2	2607.8	23243.	1360.6	2613.9
#3	2609.5	23196.	1352.6	2593.7

Sample Name: CCV Acquired: 10/18/2011 19:41:21 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**9.630**	**19.38**	**9.703**	**20.07**
Stddev	.386	.34	.165	.05
%RSD	4.007	1.776	1.697	.2443
#1	9.209	19.17	9.613	20.06
#2	9.967	19.77	9.893	20.03
#3	9.713	19.18	9.603	20.12
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2405.8**	**23123.**	**1379.6**	**2639.8**
Stddev	3.7	64.	20.1	40.6
%RSD	.15332	.27868	1.4595	1.5361
#1	2406.1	23169.	1376.3	2642.7
#2	2409.3	23151.	1361.3	2598.0
#3	2401.9	23050.	1401.1	2678.9

Sample Name: CCB Acquired: 10/18/2011 19:49:25 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	-.1482	-.0106	.0681	.0048
Stddev	.2226	.0108	.0220	.0015
%RSD	150.2	102.0	32.34	32.00
#1	-.4005	-.0206	.0616	.0055
#2	-.0647	-.0118	.0926	.0058
#3	.0206	.0008	.0500	.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2658.0	23104.	1326.1	2521.0
Stddev	19.8	162.	65.9	133.3
%RSD	.74592	.70151	4.9702	5.2869
#1	2673.5	23249.	1250.0	2367.4
#2	2664.8	23134.	1361.5	2590.0
#3	2635.7	22929.	1366.7	2605.7

Sample Name: 580-29110-A-4-B Acquired: 10/18/2011 19:55:28 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	169.8	9.463	1234.	82.63
Stddev	3.3	.195	22.	.12
%RSD	1.926	2.060	1.823	.1445
#1	166.2	9.245	1211.	82.66
#2	170.5	9.523	1235.	82.49
#3	172.6	9.621	1255.	82.73
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1605.7	21669.	1379.7	2639.1
Stddev	5.9	36.	37.3	86.3
%RSD	.36464	.16623	2.7049	3.2703
#1	1604.8	21629.	1416.8	2723.0
#2	1600.4	21699.	1380.3	2643.7
#3	1612.0	21679.	1342.1	2550.6

Sample Name: 580-29110-A-4-B Acquired: 10/18/2011 20:01:16 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**1.780**	**.0726**	**15.01**	**.8961**
Stddev	.427	.0350	.23	.0096
%RSD	24.01	48.19	1.541	1.073
#1	1.289	.1000	14.75	.9064
#2	2.069	.0332	15.11	.8945
#3	1.982	.0846	15.17	.8874
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2624.6**	**23458.**	**1295.9**	**2467.3**
Stddev	14.0	112.	14.6	46.5
%RSD	.53200	.47863	1.1303	1.8842
#1	2608.8	23330.	1312.8	2520.9
#2	2629.7	23503.	1286.4	2441.5
#3	2635.4	23541.	1288.4	2439.4

Sample Name: 580-29110-A-5-B Acquired: 10/18/2011 20:07:14 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**124.1**	**11.28**	**1274.**	**75.70**
Stddev	1.3	.13	13.	.14
%RSD	1.051	1.163	1.041	.1815
#1	122.6	11.13	1259.	75.79
#2	124.8	11.35	1277.	75.78
#3	124.9	11.35	1285.	75.55
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1634.5**	**21916.**	**1291.0**	**2484.2**
Stddev	3.8	19.	19.0	34.1
%RSD	.23516	.08836	1.4699	1.3709
#1	1630.0	21928.	1311.6	2514.3
#2	1636.4	21926.	1287.3	2491.0
#3	1636.9	21894.	1274.2	2447.3

Sample Name: 580-29110-A-5-B Acquired: 10/18/2011 20:12:55 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	1.219	.0948	14.87	.8358
Stddev	.474	.0373	.05	.0031
%RSD	38.91	39.32	.3692	.3697
#1	.8915	.0879	14.89	.8394
#2	1.763	.1350	14.81	.8345
#3	1.003	.0615	14.92	.8336
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2612.7	23174.	1241.3	2361.7
Stddev	7.0	53.	5.2	12.6
%RSD	.26636	.23028	.41494	.53406
#1	2605.0	23121.	1240.3	2360.1
#2	2614.8	23173.	1246.9	2375.1
#3	2618.4	23227.	1236.8	2350.0

Sample Name: 580-29110-A-6-B Acquired: 10/18/2011 20:24:35 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	1.321	.1218	12.85	.5423
Stddev	.572	.0142	.09	.0011
%RSD	43.31	11.63	.7065	.2053
#1	1.765	.1065	12.86	.5416
#2	.6754	.1345	12.94	.5436
#3	1.523	.1243	12.76	.5417
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2648.9	23695.	1159.5	2222.7
Stddev	3.4	57.	6.0	7.6
%RSD	.12909	.23911	.51489	.34004
#1	2645.2	23629.	1165.3	2225.8
#2	2649.7	23728.	1159.9	2228.2
#3	2651.9	23727.	1153.4	2214.1

Sample Name: 580-29110-A-7-B Acquired: 10/18/2011 20:30:33 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**120.6**	**97.44**	**1394.**	**45.97**
Stddev	1.2	.85	13.	.08
%RSD	.9794	.8681	.9424	.1818
#1	120.3	97.09	1391.	46.06
#2	122.0	98.40	1409.	45.91
#3	119.7	96.82	1383.	45.94
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1442.0**	**23445.**	**1215.7**	**2330.6**
Stddev	4.5	72.	5.2	7.9
%RSD	.30873	.30908	.43015	.33815
#1	1438.2	23365.	1220.1	2338.6
#2	1446.9	23505.	1209.9	2322.9
#3	1440.9	23467.	1217.1	2330.4

Sample Name: 580-29110-A-7-B Acquired: 10/18/2011 20:36:23 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	1.400	1.155	19.58	.5895
Stddev	.298	.036	.01	.0033
%RSD	21.27	3.108	.0759	.5667
#1	1.297	1.177	19.59	.5912
#2	1.168	1.174	19.57	.5857
#3	1.736	1.113	19.57	.5917
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2614.8	23477.	1056.7	1998.0
Stddev	4.5	58.	7.2	17.2
%RSD	.17136	.24853	.67796	.86264
#1	2609.6	23424.	1048.6	1978.2
#2	2617.7	23539.	1059.5	2007.4
#3	2617.0	23468.	1062.0	2008.6

Sample Name: 580-29110-A-8-B Acquired: 10/18/2011 20:42:18 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**138.1**	**5.401**	**244.2**	**9.605**
Stddev	.5	.100	.7	.092
%RSD	.3616	1.844	.2969	.9555
#1	137.6	5.310	243.3	9.501
#2	138.6	5.507	244.7	9.671
#3	138.1	5.387	244.4	9.644

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2292.1**	**22588.**	**1069.6**	**2016.5**
Stddev	18.2	236.	3.2	12.0
%RSD	.79344	1.0462	.30147	.59753
#1	2311.8	22857.	1068.2	2023.1
#2	2276.0	22418.	1067.3	2002.6
#3	2288.4	22487.	1073.3	2023.7

Sample Name: 580-29110-A-8-B Acquired: 10/18/2011 20:48:05 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	1.287	-.0112	2.419	.1059
Stddev	.408	.0269	.057	.0029
%RSD	31.75	241.0	2.339	2.714
#1	.8578	.0172	2.393	.1091
#2	1.671	-.0363	2.484	.1050
#3	1.331	-.0143	2.381	.1036

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2648.0	23451.	1063.3	2017.3
Stddev	7.3	20.	6.1	3.7
%RSD	.27697	.08562	.57275	.18467
#1	2640.9	23428.	1064.5	2021.2
#2	2647.6	23464.	1056.6	2016.8
#3	2655.6	23461.	1068.6	2013.8

Sample Name: CCV Acquired: 10/18/2011 20:54:04 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**10.28**	**20.23**	**10.11**	**20.47**
Stddev	.34	.32	.04	.13
%RSD	3.330	1.560	.3844	.6266
#1	10.63	20.49	10.16	20.53
#2	10.29	19.88	10.10	20.55
#3	9.941	20.32	10.08	20.32
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2353.1**	**22507.**	**1043.8**	**1979.6**
Stddev	4.3	42.	13.8	25.0
%RSD	.18270	.18655	1.3221	1.2636
#1	2352.2	22500.	1029.7	1951.6
#2	2349.3	22469.	1057.3	1999.7
#3	2357.8	22552.	1044.4	1987.7

Sample Name: CCB Acquired: 10/18/2011 21:02:08 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**.2864**	**.0288**	**-.0012**	**.0024**
Stddev	.2106	.0134	.0284	.0005
%RSD	73.51	46.46	2428.	20.86
#1	.1031	.0331	-.0018	.0021
#2	.2397	.0395	.0276	.0021
#3	.5164	.0138	-.0292	.0030
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2620.7**	**22964.**	**1075.9**	**2033.1**
Stddev	4.3	22.	10.3	11.9
%RSD	.16416	.09403	.95621	.58501
#1	2624.7	22977.	1082.2	2039.9
#2	2621.2	22939.	1081.5	2040.0
#3	2616.1	22976.	1064.1	2019.4

Sample Name: 580-29110-A-9-B Acquired: 10/18/2011 21:10:41 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**29.08**	**9.248**	**2117.**	**4.015**
Stddev	.72	.035	13.	.041
%RSD	2.470	.3773	.6100	1.013
#1	28.42	9.221	2102.	4.015
#2	29.84	9.288	2125.	3.975
#3	28.98	9.237	2123.	4.056
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1119.1**	**20534.**	**1028.7**	**1969.3**
Stddev	29.5	247.	8.5	13.3
%RSD	2.6367	1.2037	.82431	.67479
#1	1128.8	20624.	1038.4	1984.6
#2	1142.5	20724.	1024.0	1961.3
#3	1086.0	20254.	1023.5	1961.9

Sample Name: 580-29110-A-9-B Acquired: 10/18/2011 21:16:49 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	.6525	.1200	29.54	.0510
Stddev	.2922	.0280	.44	.0005
%RSD	44.78	23.33	1.494	.8959
#1	.3167	.1088	29.03	.0505
#2	.8487	.0993	29.83	.0510
#3	.7921	.1518	29.77	.0514
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2603.9	23221.	961.67	1816.2
Stddev	17.1	196.	17.73	40.0
%RSD	.65657	.84581	1.8440	2.2046
#1	2607.8	23277.	982.12	1862.3
#2	2618.7	23383.	952.35	1790.0
#3	2585.2	23002.	950.55	1796.3

Sample Name: 580-29110-A-10-B Acquired: 10/18/2011 21:22:48 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	144.7	48.99	2807.	23.95
Stddev	.9	.83	40.	.21
%RSD	.6357	1.693	1.407	.8606
#1	145.6	49.84	2845.	24.14
#2	144.8	48.93	2810.	23.99
#3	143.8	48.18	2766.	23.73
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	^ *****	20045.	897.80	1747.8
Stddev	-----	155.	6.66	15.8
%RSD	-----	.77242	.74223	.90473
#1	^ -----	19916.	890.85	1729.9
#2	^ -----	20002.	898.43	1753.5
#3	^ -----	20217.	904.14	1760.0

Sample Name: 580-29110-A-11-B Acquired: 10/18/2011 21:34:39 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**283.8**	**13.91**	**2195.**	**77.83**
Stddev	3.0	.14	26.	.29
%RSD	1.057	.9789	1.163	.3734
#1	285.5	14.06	2206.	77.81
#2	285.6	13.89	2212.	77.55
#3	280.4	13.79	2165.	78.13
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1076.1**	**20768.**	**774.80**	**1489.2**
Stddev	8.5	62.	6.14	6.1
%RSD	.78736	.29635	.79309	.40855
#1	1066.3	20808.	773.12	1482.4
#2	1081.9	20800.	769.67	1491.3
#3	1079.9	20697.	781.61	1494.0

Sample Name: 580-29110-A-11-B Acquired: 10/18/2011 21:40:35 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**3.628**	**.1972**	**30.27**	**.9053**
Stddev	.543	.0334	.48	.0024
%RSD	14.96	16.92	1.590	.2704
#1	4.081	.1733	30.71	.9025
#2	3.026	.2353	30.33	.9066
#3	3.776	.1830	29.76	.9069
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2582.7**	**23341.**	**752.87**	**1418.6**
Stddev	7.8	67.	8.78	16.8
%RSD	.30245	.28638	1.1665	1.1855
#1	2574.2	23264.	748.95	1433.5
#2	2584.4	23383.	746.74	1400.4
#3	2589.5	23376.	762.93	1422.0

Sample Name: 580-29110-A-12-B Acquired: 10/18/2011 21:46:33 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**339.5**	**7.501**	**1571.**	**85.14**
Stddev	2.0	.103	17.	.35
%RSD	.5974	1.371	1.055	.4144
#1	341.3	7.577	1590.	84.86
#2	339.8	7.384	1561.	85.01
#3	337.3	7.541	1562.	85.53
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1487.7**	**21424.**	**723.78**	**1370.7**
Stddev	8.3	88.	7.77	19.9
%RSD	.55719	.40982	1.0732	1.4520
#1	1492.0	21477.	714.81	1349.0
#2	1493.0	21471.	728.54	1388.1
#3	1478.2	21322.	727.98	1375.0

Sample Name: 580-29110-A-12-B Acquired: 10/18/2011 21:52:30 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**3.737**	**.0578**	**20.25**	**.9983**
Stddev	.622	.0476	.53	.0072
%RSD	16.63	82.29	2.614	.7224
#1	4.342	.0928	19.64	1.006
#2	3.769	.0771	20.53	.9912
#3	3.100	.0036	20.58	.9981
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2552.6**	**23012.**	**709.28**	**1337.5**
Stddev	9.5	89.	13.46	20.2
%RSD	.37308	.38702	1.8982	1.5096
#1	2542.3	22910.	724.72	1359.0
#2	2561.1	23073.	703.10	1334.5
#3	2554.4	23054.	700.01	1319.0

Sample Name: 580-29110-A-13-B Acquired: 10/18/2011 21:58:29 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**174.5**	**16.03**	**1733.**	**52.13**
Stddev	2.0	.13	17.	.09
%RSD	1.145	.8239	1.005	.1737
#1	173.8	15.94	1728.	52.07
#2	173.0	16.18	1718.	52.24
#3	176.8	15.98	1752.	52.09
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1409.9**	**21973.**	**693.26**	**1324.0**
Stddev	7.6	45.	5.80	3.7
%RSD	.53643	.20678	.83709	.28283
#1	1407.7	21982.	693.46	1323.4
#2	1403.6	21923.	698.96	1320.7
#3	1418.3	22012.	687.36	1328.1

Sample Name: 580-29110-A-13-B Acquired: 10/18/2011 22:04:27 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	1.959	.1595	22.85	.6137
Stddev	.637	.0826	.13	.0069
%RSD	32.51	51.75	.5704	1.126
#1	1.778	.0808	22.79	.6075
#2	1.432	.2455	23.00	.6124
#3	2.667	.1523	22.76	.6212
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2579.0	23198.	648.18	1220.1
Stddev	12.8	117.	3.24	12.8
%RSD	.49715	.50620	.50039	1.0488
#1	2583.6	23231.	646.45	1213.3
#2	2588.8	23295.	646.17	1212.1
#3	2564.5	23067.	651.93	1234.9

Sample Name: CCV Acquired: 10/18/2011 22:10:27 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**10.72**	**20.55**	**10.59**	**20.11**
Stddev	.44	.14	.14	.11
%RSD	4.122	.6731	1.318	.5321
#1	10.21	20.45	10.69	20.19
#2	10.95	20.70	10.43	20.14
#3	11.00	20.49	10.65	19.99
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2354.1**	**22717.**	**660.23**	**1233.4**
Stddev	5.9	25.	4.63	1.6
%RSD	.25197	.10902	.70149	.12646
#1	2347.9	22690.	655.69	1232.7
#2	2354.9	22738.	664.95	1232.2
#3	2359.6	22725.	660.04	1235.1

Sample Name: CCB Acquired: 10/18/2011 22:18:33 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	.0691	.0287	.0699	.0080
Stddev	.2343	.0031	.0479	.0010
%RSD	339.3	10.71	68.48	12.97
#1	.0939	.0253	.1040	.0090
#2	.2900	.0312	.0152	.0069
#3	-.1767	.0296	.0907	.0079
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2641.3	23306.	647.00	1215.7
Stddev	24.0	203.	13.18	25.8
%RSD	.90829	.87182	2.0374	2.1185
#1	2655.5	23418.	634.55	1187.3
#2	2654.9	23429.	645.64	1222.4
#3	2613.6	23072.	660.81	1237.4

Sample Name: 580-29110-A-14-B Acquired: 10/18/2011 22:24:37 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**10.19**	**1.573**	**43.19**	**.9275**
Stddev	.59	.069	.74	.0013
%RSD	5.769	4.386	1.702	.1375
#1	10.41	1.643	44.04	.9290
#2	9.527	1.571	42.74	.9267
#3	10.64	1.505	42.79	.9269
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2578.6**	**23296.**	**654.88**	**1228.0**
Stddev	1.1	53.	9.34	15.5
%RSD	.04217	.22871	1.4262	1.2628
#1	2579.4	23353.	644.10	1210.3
#2	2577.4	23287.	660.22	1239.1
#3	2579.1	23248.	660.33	1234.6

Sample Name: 580-29110-A-14-B Acquired: 10/18/2011 22:30:36 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	.1069	-.0042	.4483	.0209
Stddev	1.010	.0255	.0254	.0011
%RSD	945.0	604.2	5.675	5.047
#1	1.262	-.0177	.4241	.0221
#2	-.3330	.0251	.4748	.0200
#3	-.6083	-.0201	.4461	.0205
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2645.9	23528.	651.20	1239.2
Stddev	2.5	59.	4.82	2.7
%RSD	.09413	.24945	.73975	.21965
#1	2643.0	23481.	646.02	1240.1
#2	2647.7	23510.	655.55	1241.3
#3	2646.9	23594.	652.04	1236.1

Sample Name: 580-29110-A-15-B Acquired: 10/18/2011 22:42:29 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**1.499**	**.1229**	**1.974**	**.1083**
Stddev	.327	.0271	.057	.0014
%RSD	21.80	22.07	2.897	1.287
#1	1.876	.1427	1.958	.1087
#2	1.312	.1340	1.926	.1094
#3	1.308	.0920	2.037	.1067
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2648.3**	**23656.**	**654.60**	**1243.6**
Stddev	17.6	161.	10.62	12.4
%RSD	.66601	.68188	1.6228	.99467
#1	2628.0	23471.	666.40	1253.6
#2	2659.5	23729.	651.59	1247.5
#3	2657.5	23768.	645.81	1229.8

Sample Name: 580-29110-A-16-B Acquired: 10/18/2011 22:48:31 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**207.0**	**85.27**	**866.5**	**51.12**
Stddev	2.5	.89	7.8	.19
%RSD	1.196	1.040	.9039	.3756
#1	204.2	84.46	858.5	51.13
#2	208.2	85.14	867.0	51.30
#3	208.6	86.22	874.1	50.92
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1829.4**	**23127.**	**684.09**	**1313.8**
Stddev	7.3	37.	6.21	17.1
%RSD	.40003	.15863	.90829	1.2993
#1	1837.8	23166.	689.68	1328.0
#2	1825.8	23123.	685.19	1318.6
#3	1824.5	23093.	677.40	1294.9

Sample Name: 580-29110-A-16-B Acquired: 10/18/2011 22:54:21 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**2.378**	**.9535**	**10.36**	**.5716**
Stddev	.180	.0814	.08	.0034
%RSD	7.582	8.541	.7838	.5962
#1	2.461	.8874	10.43	.5721
#2	2.171	.9287	10.27	.5680
#3	2.501	1.045	10.37	.5747
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2652.5**	**24065.**	**618.83**	**1166.9**
Stddev	4.3	12.	7.00	13.1
%RSD	.16120	.05183	1.1304	1.1211
#1	2653.5	24075.	611.68	1153.1
#2	2647.8	24071.	625.66	1179.2
#3	2656.1	24051.	619.15	1168.5

Sample Name: 580-29110-A-17-B Acquired: 10/18/2011 23:00:20 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**201.1**	**82.56**	**880.7**	**52.95**
Stddev	1.7	.05	6.3	.62
%RSD	.8457	.0602	.7191	1.175
#1	201.3	82.58	876.8	53.17
#2	199.3	82.60	877.2	53.43
#3	202.6	82.51	888.0	52.25
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1822.0**	**22782.**	**657.69**	**1242.5**
Stddev	8.9	111.	5.68	5.2
%RSD	.48672	.48621	.86344	.41907
#1	1817.6	22786.	663.03	1248.5
#2	1816.2	22670.	658.33	1239.3
#3	1832.2	22891.	651.72	1239.7

Sample Name: 580-29110-A-17-B Acquired: 10/18/2011 23:06:11 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**2.660**	**.8937**	**10.16**	**.5872**
Stddev	.544	.0421	.12	.0014
%RSD	20.47	4.708	1.216	.2439
#1	3.150	.9137	10.30	.5860
#2	2.074	.8454	10.11	.5868
#3	2.756	.9221	10.08	.5888
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2631.6**	**23872.**	**605.25**	**1135.6**
Stddev	4.6	74.	5.69	19.0
%RSD	.17357	.30825	.94012	1.6743
#1	2635.1	23957.	599.43	1115.6
#2	2626.5	23837.	610.80	1137.7
#3	2633.4	23823.	605.51	1153.5

Sample Name: CCV Acquired: 10/18/2011 23:12:09 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**10.59**	**20.55**	**10.79**	**19.88**
Stddev	.59	.09	.06	.06
%RSD	5.590	.4421	.5733	.3207
#1	10.87	20.52	10.83	19.94
#2	9.908	20.48	10.72	19.90
#3	10.99	20.65	10.82	19.81
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2367.0**	**22995.**	**600.67**	**1137.0**
Stddev	8.7	27.	.71	2.3
%RSD	.36874	.11562	.11845	.20438
#1	2357.7	22988.	599.99	1134.6
#2	2375.0	23025.	601.41	1137.3
#3	2368.3	22973.	600.60	1139.2

Sample Name: CCB Acquired: 10/18/2011 23:20:16 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**.3196**	**-.0168**	**.0901**	**.0049**
Stddev	.3085	.1405	.0341	.0005
%RSD	96.53	838.4	37.90	10.02
#1	.2409	-.0674	.0595	.0051
#2	.6598	.1421	.0838	.0043
#3	.0581	-.1249	.1269	.0052
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2647.7**	**23537.**	**579.80**	**1095.3**
Stddev	3.4	42.	32.82	60.9
%RSD	.12996	.17963	5.6599	5.5584
#1	2649.6	23586.	541.94	1025.0
#2	2649.8	23515.	597.51	1130.2
#3	2643.7	23511.	599.97	1130.8

Sample Name: Blank Acquired: 10/18/2011 16:06:20 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0045**	**-.0022**	**.0004**	**-.0002**
Stddev	.0002	.0008	.0009	.0001
%RSD	4.598	36.37	234.2	37.41
#1	.0043	-.0013	-.0003	-.0002
#2	.0047	-.0028	.0001	-.0002
#3	.0047	-.0025	.0013	-.0003

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2693.2**	**23394.**	**1790.9**	**3401.4**
Stddev	3.2	51.	4.1	6.3
%RSD	.12018	.21671	.22634	.18581
#1	2690.7	23379.	1792.3	3402.0
#2	2692.0	23353.	1794.0	3407.4
#3	2696.8	23451.	1786.3	3394.8

Sample Name: CCB Acquired: 10/19/2011 3:59:30 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	F .6140	.0583	.0650	.0090
Stddev	.8753	.0445	.1157	.0018
%RSD	142.6	76.36	178.0	19.79
#1	.7375	.0350	.1821	.0092
#2	-.3165	.1095	.0620	.0106
#3	1.421	.0302	-.0491	.0071
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass
High Limit	.5000			
Low Limit	-.5000			
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2705.2	24237.	433.37	816.25
Stddev	3.2	57.	5.54	12.55
%RSD	.11666	.23705	1.2789	1.5375
#1	2703.9	24217.	427.01	801.80
#2	2702.9	24193.	435.88	824.43
#3	2708.8	24302.	437.20	822.53

Sample Name: CalibStd1 00021 Acquired: 10/18/2011 16:12:19 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0087**	**.0272**	**.0223**	**.0794**
Stddev	.0009	.0006	.0004	.0007
%RSD	10.40	2.385	1.746	.8374
#1	.0096	.0268	.0220	.0788
#2	.0078	.0268	.0227	.0791
#3	.0088	.0279	.0223	.0801
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2633.7**	**23282.**	**1808.0**	**3445.0**
Stddev	15.1	180.	15.3	22.3
%RSD	.57463	.77522	.84717	.64666
#1	2647.8	23456.	1824.9	3468.7
#2	2635.7	23292.	1804.1	3441.9
#3	2617.7	23096.	1795.0	3424.5

Sample Name: CalibStd-2 00023 Acquired: 10/18/2011 16:18:07 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**.0221**	**.1372**	**.1092**	**.3805**
Stddev	.0008	.0005	.0014	.0006
%RSD	3.682	.3548	1.308	.1593
#1	.0221	.1367	.1083	.3810
#2	.0229	.1371	.1108	.3806
#3	.0212	.1377	.1084	.3798

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2531.9**	**23313.**	**1750.0**	**3383.8**
Stddev	4.5	93.	15.0	34.0
%RSD	.17595	.39858	.85936	1.0061
#1	2528.2	23229.	1767.4	3423.1
#2	2530.8	23298.	1741.2	3363.2
#3	2536.9	23413.	1741.5	3365.1

Sample Name: CalibStd-3 00021 Acquired: 10/18/2011 16:23:42 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.0908	.6957	.5410	1.841
Stddev	.0019	.0098	.0030	.003
%RSD	2.074	1.409	.5566	.1762
#1	.0912	.7062	.5437	1.842
#2	.0924	.6939	.5416	1.838
#3	.0887	.6869	.5377	1.844
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2303.6	22749.	1749.4	3341.3
Stddev	5.8	41.	17.4	36.7
%RSD	.25260	.17870	.99188	1.0990
#1	2299.3	22729.	1732.9	3304.9
#2	2310.3	22796.	1747.9	3340.8
#3	2301.4	22722.	1767.5	3378.3

Sample Name: CalibStd-4 00021 Acquired: 10/18/2011 16:29:15 Type: Cal
Method: 6010-2007Oct2011Master1(v5) Mode: IR Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	.1725	1.333	1.048	3.553
Stddev	.0028	.007	.006	.025
%RSD	1.603	.5243	.5547	.7176
#1	.1741	1.339	1.047	3.576
#2	.1740	1.335	1.054	3.556
#3	.1693	1.326	1.042	3.526
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2121.5	21965.	1725.2	3363.9
Stddev	3.8	11.	8.1	22.7
%RSD	.17679	.05061	.47219	.67577
#1	2125.0	21952.	1722.6	3344.6
#2	2122.0	21968.	1718.7	3358.3
#3	2117.5	21974.	1734.3	3389.0

Sample Name: ICV 200.7 00018 Acquired: 10/18/2011 16:34:46 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**4.933**	**5.219**	**4.947**	**5.129**
Stddev	.158	.040	.028	.021
%RSD	3.204	.7704	.5739	.4124
#1	5.105	5.208	4.976	5.110
#2	4.899	5.263	4.920	5.152
#3	4.795	5.185	4.946	5.127
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2494.5**	**23475.**	**1805.0**	**3403.2**
Stddev	11.5	57.	3.9	6.1
%RSD	.45913	.24436	.21474	.17942
#1	2507.1	23515.	1802.8	3405.1
#2	2484.7	23409.	1802.7	3408.0
#3	2491.7	23500.	1809.5	3396.3

Sample Name: ICB_CCB Acquired: 10/18/2011 16:42:49 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	-.1079	.0758	-.0018	.0246
Stddev	.4701	.0275	.0224	.0014
%RSD	435.7	36.22	1276.	5.522
#1	-.2569	.0514	.0242	.0261
#2	-.4853	.0706	-.0145	.0243
#3	.4186	.1056	-.0150	.0235
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2698.4	23556.	1777.5	3422.2
Stddev	7.0	46.	15.0	33.5
%RSD	.25868	.19325	.84382	.97892
#1	2690.4	23504.	1791.0	3450.5
#2	2702.8	23575.	1780.0	3431.0
#3	2702.1	23589.	1761.4	3385.2

Sample Name: CRI 00021 Acquired: 10/18/2011 16:48:50 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**.4515**	**1.171**	**.2047**	**1.191**
Stddev	.2152	.064	.0268	.010
%RSD	47.66	5.463	13.09	.8717
#1	.3505	1.101	.1738	1.199
#2	.6985	1.187	.2215	1.194
#3	.3053	1.226	.2187	1.179
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2622.4**	**23443.**	**1810.5**	**3428.2**
Stddev	11.5	112.	4.8	19.9
%RSD	.43774	.47866	.26293	.58057
#1	2615.9	23360.	1809.7	3415.5
#2	2615.5	23398.	1815.6	3451.2
#3	2635.6	23570.	1806.2	3418.1

Sample Name: HIGH STD 00021 Acquired: 10/18/2011 16:57:16 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	F **37.45**	**76.97**	**38.26**	**78.73**
Stddev	.71	.84	.08	.87
%RSD	1.901	1.088	.2084	1.099
#1	38.27	76.84	38.34	79.73
#2	37.12	77.86	38.18	78.20
#3	36.96	76.20	38.26	78.27
Check ?	Chk Fail	Chk Pass	Chk Pass	Chk Pass
Value	40.00			
Range	-5.000%			
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2138.7**	**22164.**	**1771.4**	**3416.4**
Stddev	21.6	299.	12.3	30.8
%RSD	1.0079	1.3482	.69217	.90059
#1	2113.8	21820.	1761.2	3423.3
#2	2152.3	22326.	1768.0	3382.8
#3	2150.0	22348.	1785.0	3443.1

Sample Name: ICSA 00037 Acquired: 10/18/2011 17:05:18 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**502.5**	**487.6**	**191.6**	**494.2**
Stddev	.2	.6	.5	2.2
%RSD	.0422	.1263	.2671	.4495
#1	502.4	487.1	191.0	494.4
#2	502.8	488.3	191.9	491.9
#3	502.4	487.4	191.9	496.3
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1945.6**	**21057.**	**1709.6**	**3289.4**
Stddev	7.1	41.	7.4	11.0
%RSD	.36669	.19283	.43559	.33316
#1	1937.4	21013.	1704.0	3282.7
#2	1950.3	21094.	1706.8	3283.5
#3	1949.2	21063.	1718.1	3302.0

Sample Name: ICSAB 00029 Acquired: 10/18/2011 17:13:50 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**501.1**	**494.3**	**191.1**	**489.8**
Stddev	4.6	2.3	2.0	5.0
%RSD	.9117	.4588	1.036	1.015
#1	501.2	491.7	191.1	495.4
#2	496.5	495.8	189.2	485.9
#3	505.7	495.4	193.2	488.1
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1819.1**	**20573.**	**1668.2**	**3161.5**
Stddev	6.9	54.	15.1	24.4
%RSD	.37921	.26329	.90756	.77213
#1	1811.4	20516.	1675.4	3189.6
#2	1824.7	20579.	1678.4	3146.0
#3	1821.1	20624.	1650.8	3148.8

Sample Name: CCV Acquired: 10/19/2011 0:28:17 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**10.36**	**20.72**	**10.80**	**19.40**
Stddev	.18	.38	.22	.10
%RSD	1.723	1.832	1.994	.5034
#1	10.54	21.15	11.01	19.49
#2	10.37	20.44	10.80	19.41
#3	10.18	20.57	10.58	19.30
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2425.0**	**23659.**	**599.89**	**1126.0**
Stddev	12.8	86.	11.45	18.8
%RSD	.52882	.36457	1.9093	1.6704
#1	2412.8	23567.	586.80	1105.0
#2	2423.8	23672.	608.05	1141.4
#3	2438.4	23738.	604.82	1131.5

Sample Name: CCB Acquired: 10/19/2011 0:36:23 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	-.1353	-.0302	.0320	.0018
Stddev	.3415	.0443	.0585	.0005
%RSD	252.5	146.8	183.0	27.06
#1	-.4238	-.0118	.0371	.0013
#2	.2418	.0019	-.0289	.0022
#3	-.2238	-.0807	.0878	.0019
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2703.2	24016.	590.35	1122.2
Stddev	4.3	37.	9.53	15.0
%RSD	.15849	.15285	1.6134	1.3384
#1	2698.6	23974.	595.18	1135.7
#2	2703.8	24034.	596.50	1124.8
#3	2707.1	24040.	579.38	1106.0

Sample Name: MB 580-97974/20-A Acquired: 10/19/2011 0:44:58 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**.4088**	**.0026**	**.0154**	**.0027**
Stddev	.4817	.0453	.0251	.0020
%RSD	117.8	1759.	162.8	74.71
#1	.4173	.0541	.0356	.0004
#2	-.0771	-.0158	.0235	.0040
#3	.8861	-.0306	-.0127	.0036

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2707.6**	**24148.**	**612.42**	**1138.6**
Stddev	5.5	118.	5.42	14.8
%RSD	.20494	.48988	.88496	1.2989
#1	2711.1	24197.	608.08	1132.8
#2	2710.5	24234.	610.69	1127.6
#3	2701.2	24013.	618.49	1155.4

Sample Name: LCS 580-97974/21-A Acquired: 10/19/2011 0:51:03 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**4.321**	**20.31**	**23.47**	**19.42**
Stddev	.846	.12	.27	.06
%RSD	19.57	.6091	1.135	.2897
#1	5.297	20.43	23.75	19.48
#2	3.824	20.32	23.23	19.39
#3	3.841	20.18	23.43	19.38
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2338.8**	**23189.**	**605.35**	**1132.4**
Stddev	9.6	68.	6.43	4.4
%RSD	.40842	.29494	1.0625	.39027
#1	2328.9	23110.	597.95	1127.5
#2	2339.5	23229.	609.66	1136.0
#3	2347.9	23228.	608.43	1133.8

Sample Name: LCSD 580-97974/22-A Acquired: 10/19/2011 0:56:41 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**4.476**	**20.36**	**23.57**	**18.83**
Stddev	.869	.27	.11	.04
%RSD	19.42	1.338	.4685	.1892
#1	4.330	20.11	23.51	18.87
#2	5.409	20.65	23.70	18.81
#3	3.689	20.32	23.51	18.80
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2367.7**	**23563.**	**584.86**	**1106.4**
Stddev	3.3	19.	3.18	6.7
%RSD	.13837	.07995	.54428	.60106
#1	2364.0	23546.	586.18	1109.5
#2	2368.9	23583.	587.16	1098.8
#3	2370.3	23559.	581.23	1111.0

Sample Name: LCSSRM 580-97974/23- Acquired: 10/19/2011 1:02:19 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**58.35**	**66.07**	**111.1**	**23.50**
Stddev	2.15	1.85	3.1	.38
%RSD	3.690	2.794	2.769	1.616
#1	60.73	67.88	114.5	23.79
#2	56.53	64.19	108.4	23.64
#3	57.80	66.15	110.5	23.07
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2346.1**	**24005.**	**607.43**	**1154.3**
Stddev	23.1	205.	12.36	22.0
%RSD	.98612	.85483	2.0353	1.9039
#1	2325.4	23844.	594.25	1131.1
#2	2341.9	23936.	618.76	1174.8
#3	2371.1	24236.	609.28	1157.2

Sample Name: 580-29110-A-18-E SD Acquired: 10/19/2011 1:08:03 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/5 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**39.20**	**8.020**	**231.2**	**19.98**
Stddev	.90	.080	1.1	.13
%RSD	2.303	.9930	.4584	.6257
#1	39.42	7.942	232.2	19.91
#2	38.20	8.101	230.1	19.91
#3	39.97	8.017	231.1	20.13
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2371.0**	**23918.**	**609.24**	**1134.4**
Stddev	15.7	137.	6.29	5.5
%RSD	.66140	.57136	1.0321	.48063
#1	2379.8	23997.	605.78	1138.6
#2	2380.3	23997.	616.50	1136.4
#3	2352.9	23761.	605.45	1128.2

Sample Name: 580-29110-A-18-E SD Acquired: 10/19/2011 1:14:02 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/500 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	.8125	.1363	2.336	.2121
Stddev	.3525	.1123	.040	.0002
%RSD	43.38	82.39	1.704	.1128
#1	1.217	.1767	2.373	.2120
#2	.5690	.0094	2.342	.2123
#3	.6519	.2229	2.294	.2119
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2695.7	24317.	587.17	1104.6
Stddev	8.6	124.	5.08	3.4
%RSD	.32016	.51031	.86510	.31107
#1	2685.8	24176.	583.61	1102.4
#2	2701.6	24370.	592.98	1108.6
#3	2699.7	24406.	584.90	1102.9

Sample Name: 580-29110-A-18-E Acquired: 10/19/2011 1:20:05 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**197.8**	**38.57**	**1047.**	**95.41**
Stddev	.7	.70	9.	.22
%RSD	.3709	1.819	.8873	.2298
#1	198.7	39.35	1056.	95.50
#2	197.3	37.99	1038.	95.57
#3	197.5	38.37	1046.	95.16

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1809.4**	**23061.**	**600.79**	**1142.9**
Stddev	3.2	57.	5.19	16.7
%RSD	.17750	.24677	.86453	1.4618
#1	1807.4	23045.	599.01	1127.1
#2	1807.6	23014.	606.64	1160.4
#3	1813.1	23124.	596.73	1141.1

Sample Name: 580-29110-A-18-E Acquired: 10/19/2011 1:25:51 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**2.140**	**.3004**	**11.39**	**1.016**
Stddev	.360	.0260	.18	.011
%RSD	16.85	8.655	1.604	1.070
#1	1.770	.3250	11.60	1.006
#2	2.158	.3030	11.31	1.015
#3	2.491	.2732	11.27	1.028
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2675.4**	**24478.**	**582.78**	**1098.6**
Stddev	6.3	84.	7.54	3.8
%RSD	.23666	.34120	1.2936	.34510
#1	2675.6	24523.	574.26	1094.2
#2	2681.6	24530.	588.58	1100.3
#3	2669.0	24382.	585.51	1101.2

Sample Name: 580-29110-A-18-F DU Acquired: 10/19/2011 1:31:51 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	190.7	34.93	1069.	90.63
Stddev	2.0	.43	7.	.43
%RSD	1.031	1.237	.6889	.4771
#1	189.9	34.63	1069.	91.12
#2	192.9	35.42	1077.	90.34
#3	189.2	34.74	1062.	90.41
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	1796.0	23110.	594.41	1116.3
Stddev	8.7	10.	5.31	16.0
%RSD	.48215	.04192	.89266	1.4328
#1	1786.4	23099.	596.57	1118.1
#2	1798.2	23117.	588.37	1099.5
#3	1803.3	23114.	598.30	1131.3

Sample Name: 580-29110-A-18-F DU Acquired: 10/19/2011 1:37:37 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	1.919	.3230	12.38	1.007
Stddev	.594	.0577	.18	.002
%RSD	30.95	17.85	1.473	.2407
#1	2.572	.2564	12.24	1.004
#2	1.773	.3562	12.59	1.007
#3	1.411	.3563	12.32	1.009
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2674.4	24434.	557.21	1059.8
Stddev	5.5	28.	7.99	3.3
%RSD	.20516	.11430	1.4339	.30767
#1	2671.1	24414.	554.34	1058.3
#2	2680.8	24466.	551.05	1057.5
#3	2671.4	24423.	566.23	1063.5

Sample Name: CCV Acquired: 10/19/2011 1:43:37 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**9.620**	**20.01**	**10.65**	**19.12**
Stddev	.381	.05	.20	.01
%RSD	3.963	.2273	1.832	.0741
#1	9.838	20.03	10.87	19.12
#2	9.179	20.04	10.59	19.12
#3	9.842	19.96	10.50	19.10
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2412.6**	**23632.**	**548.29**	**1050.7**
Stddev	7.4	59.	3.50	6.0
%RSD	.30708	.24846	.63889	.57450
#1	2406.6	23574.	549.72	1055.6
#2	2410.3	23631.	550.86	1052.4
#3	2420.9	23692.	544.30	1043.9

Sample Name: CCB Acquired: 10/19/2011 1:51:44 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	-.1812	-.0523	-.0204	.0049
Stddev	.1392	.0900	.0714	.0017
%RSD	76.83	172.1	349.9	34.18
#1	-.2629	.0071	-.0895	.0035
#2	-.2601	-.1558	.0530	.0043
#3	-.0204	-.0081	-.0246	.0067
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2715.1	24381.	555.59	1038.3
Stddev	5.2	53.	3.42	8.3
%RSD	.19322	.21712	.61542	.79697
#1	2709.0	24342.	552.83	1030.0
#2	2718.5	24359.	554.53	1038.4
#3	2717.6	24441.	559.41	1046.6

Sample Name: 580-29110-A-18-G MS Acquired: 10/19/2011 2:00:18 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**223.7**	**64.19**	**1085.**	**112.8**
Stddev	1.7	.36	6.	.2
%RSD	.7762	.5547	.5832	.1759
#1	221.8	63.79	1080.	112.6
#2	223.9	64.48	1092.	112.8
#3	225.3	64.29	1082.	113.0
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1701.9**	**22665.**	**549.17**	**1055.4**
Stddev	5.7	28.	1.70	3.8
%RSD	.33443	.12281	.30864	.36024
#1	1695.6	22692.	547.22	1051.4
#2	1706.8	22668.	550.18	1059.0
#3	1703.3	22636.	550.12	1055.9

Sample Name: 580-29110-A-18-G MS Acquired: 10/19/2011 2:05:58 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**3.010**	**.7117**	**13.19**	**1.281**
Stddev	.725	.0698	.29	.012
%RSD	24.09	9.812	2.174	.9005
#1	2.240	.7365	13.52	1.295
#2	3.109	.6328	13.02	1.274
#3	3.680	.7657	13.02	1.275
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2664.8**	**24470.**	**525.80**	**1004.6**
Stddev	16.1	187.	7.97	14.0
%RSD	.60537	.76476	1.5167	1.3970
#1	2648.0	24273.	516.65	988.40
#2	2666.1	24493.	529.41	1013.1
#3	2680.2	24645.	531.33	1012.4

Sample Name: 580-29110-A-18-H MSD Acquired: 10/19/2011 2:11:57 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**205.0**	**61.49**	**1111.**	**105.7**
Stddev	2.1	.48	9.	.6
%RSD	1.022	.7748	.8266	.5910
#1	203.4	60.94	1104.	106.1
#2	204.3	61.73	1109.	105.9
#3	207.4	61.81	1121.	104.9
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1674.5**	**22563.**	**547.15**	**1023.0**
Stddev	10.2	137.	7.30	8.0
%RSD	.60739	.60665	1.3336	.78278
#1	1664.1	22465.	554.35	1031.7
#2	1674.8	22505.	547.34	1021.4
#3	1684.5	22720.	539.76	1015.9

Sample Name: 580-29110-A-18-H MSD Acquired: 10/19/2011 2:17:37 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	3.137	.6431	13.80	1.206
Stddev	.640	.0826	.31	.009
%RSD	20.41	12.85	2.230	.7900
#1	3.383	.7142	14.13	1.202
#2	3.617	.5525	13.52	1.199
#3	2.410	.6626	13.76	1.217
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2656.8	24394.	508.07	967.54
Stddev	10.7	112.	2.55	5.51
%RSD	.40232	.45976	.50130	.56951
#1	2644.5	24265.	505.38	962.78
#2	2662.6	24468.	508.40	966.28
#3	2663.4	24450.	510.44	973.58

Sample Name: 580-29110-A-18-E PDS Acquired: 10/19/2011 2:23:38 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**191.9**	**56.28**	**1038.**	**106.1**
Stddev	12.6	3.39	61.	.4
%RSD	6.580	6.024	5.924	.3356
#1	206.4	60.19	1108.	105.7
#2	183.4	54.53	997.2	106.5
#3	185.8	54.12	1007.	106.1
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1765.0**	**22875.**	**503.36**	**973.14**
Stddev	4.3	80.	24.51	46.10
%RSD	.24273	.34783	4.8686	4.7368
#1	1770.0	22965.	475.26	920.00
#2	1762.6	22845.	520.28	997.01
#3	1762.4	22814.	514.55	1002.4

Sample Name: 580-29110-A-18-E PDS Acquired: 10/19/2011 2:29:18 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	3.038	.5690	11.65	1.160
Stddev	.372	.1097	.08	.009
%RSD	12.26	19.28	.7103	.7603
#1	3.270	.6557	11.56	1.161
#2	2.608	.4456	11.66	1.151
#3	3.236	.6057	11.72	1.168
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2659.7	24441.	496.54	953.91
Stddev	13.6	149.	5.11	6.52
%RSD	.51135	.60780	1.0290	.68388
#1	2654.1	24435.	499.30	960.00
#2	2675.2	24593.	499.68	954.70
#3	2649.8	24296.	490.64	947.02

Sample Name: 580-29110-A-19-B Acquired: 10/19/2011 2:35:19 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**231.6**	**42.01**	**1152.**	**115.3**
Stddev	2.4	.43	10.	.3
%RSD	1.035	1.027	.8411	.2344
#1	229.3	41.55	1141.	115.6
#2	234.1	42.40	1160.	115.2
#3	231.5	42.08	1153.	115.1
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1737.0**	**23427.**	**526.55**	**990.44**
Stddev	5.5	13.	4.32	10.46
%RSD	.31874	.05377	.82122	1.0564
#1	1732.1	23428.	531.09	999.58
#2	1743.0	23438.	522.48	979.03
#3	1736.0	23413.	526.07	992.72

Sample Name: 580-29110-A-19-B Acquired: 10/19/2011 2:41:05 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**3.137**	**.4179**	**14.27**	**1.325**
Stddev	.115	.0471	.12	.019
%RSD	3.675	11.26	.8743	1.465
#1	3.143	.4683	14.36	1.317
#2	3.250	.3752	14.13	1.310
#3	3.019	.4101	14.33	1.347
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2655.5**	**24346.**	**483.79**	**912.80**
Stddev	13.9	106.	7.29	17.69
%RSD	.52177	.43470	1.5059	1.9383
#1	2639.6	24227.	475.98	894.10
#2	2661.8	24431.	490.40	929.28
#3	2665.1	24379.	484.99	915.03

Sample Name: 580-29110-A-20-B Acquired: 10/19/2011 2:47:05 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**341.3**	**64.73**	**441.7**	**105.2**
Stddev	1.2	.10	2.0	.6
%RSD	.3440	.1552	.4486	.5731
#1	340.1	64.61	440.2	105.9
#2	341.5	64.78	440.9	105.0
#3	342.4	64.79	443.9	104.7
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2115.3**	**23857.**	**501.42**	**953.23**
Stddev	3.6	24.	2.41	2.65
%RSD	.17083	.10173	.48138	.27796
#1	2112.7	23873.	503.98	956.15
#2	2113.7	23869.	501.08	952.58
#3	2119.4	23829.	499.19	950.98

Sample Name: 580-29110-A-20-B Acquired: 10/19/2011 2:52:57 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**3.311**	**.5797**	**4.463**	**1.095**
Stddev	.281	.0426	.091	.013
%RSD	8.497	7.352	2.044	1.166
#1	3.376	.5693	4.370	1.085
#2	3.554	.5432	4.553	1.109
#3	3.003	.6265	4.465	1.091
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2675.0**	**24525.**	**465.29**	**884.53**
Stddev	1.4	26.	10.34	19.06
%RSD	.05262	.10463	2.2219	2.1545
#1	2676.4	24506.	477.09	905.13
#2	2673.6	24514.	457.80	867.53
#3	2674.9	24554.	460.99	880.93

Sample Name: CCV Acquired: 10/19/2011 2:58:58 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**10.73**	**20.40**	**10.98**	**19.35**
Stddev	.67	.17	.13	.10
%RSD	6.281	.8328	1.157	.5034
#1	10.51	20.26	11.12	19.43
#2	11.49	20.59	10.93	19.37
#3	10.20	20.34	10.88	19.24
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2415.1**	**23820.**	**479.37**	**898.38**
Stddev	5.3	48.	4.86	6.69
%RSD	.21908	.20063	1.0140	.74413
#1	2413.5	23787.	473.83	892.28
#2	2410.8	23798.	481.35	905.53
#3	2421.0	23875.	482.93	897.35

Sample Name: CCB Acquired: 10/19/2011 3:07:05 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	.2844	.0728	.0211	.0057
Stddev	.5097	.0216	.1549	.0014
%RSD	179.2	29.73	734.3	24.29
#1	.5751	.0895	.0423	.0069
#2	-.3042	.0483	-.1433	.0042
#3	.5821	.0806	.1643	.0062
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
High Limit				
Low Limit				
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2648.2	23587.	470.15	895.49
Stddev	9.9	120.	5.61	4.46
%RSD	.37209	.51011	1.1940	.49827
#1	2645.0	23581.	473.69	899.23
#2	2640.2	23470.	473.08	896.70
#3	2659.2	23710.	463.68	890.55

Sample Name: 580-29110-A-21-B Acquired: 10/19/2011 3:15:40 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**184.4**	**28.32**	**780.7**	**71.64**
Stddev	1.1	.17	4.0	.42
%RSD	.6082	.6096	.5060	.5919
#1	183.1	28.15	778.2	71.18
#2	184.8	28.32	778.5	72.01
#3	185.3	28.50	785.2	71.73
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1955.1**	**23636.**	**494.70**	**946.09**
Stddev	10.2	109.	2.11	7.06
%RSD	.52108	.46173	.42746	.74654
#1	1962.7	23755.	494.68	945.40
#2	1943.5	23540.	496.83	953.48
#3	1959.0	23613.	492.60	939.40

Sample Name: 580-29110-A-21-B Acquired: 10/19/2011 3:21:32 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**2.419**	**.2433**	**8.510**	**.7363**
Stddev	.468	.0711	.264	.0033
%RSD	19.34	29.24	3.101	.4511
#1	2.524	.3245	8.338	.7326
#2	2.825	.2135	8.378	.7371
#3	1.907	.1919	8.814	.7391
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2673.4**	**24581.**	**464.35**	**880.70**
Stddev	8.1	114.	11.31	23.15
%RSD	.30242	.46258	2.4348	2.6284
#1	2677.5	24662.	475.09	899.30
#2	2678.6	24630.	465.42	888.03
#3	2664.1	24451.	452.55	854.78

Sample Name: 580-29110-A-22-B Acquired: 10/19/2011 3:27:34 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**207.1**	**36.40**	**787.7**	**76.89**
Stddev	4.4	.41	9.5	.23
%RSD	2.108	1.119	1.210	.2970
#1	212.1	36.79	798.4	76.89
#2	204.9	36.42	780.2	77.12
#3	204.2	35.98	784.4	76.66
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**1944.1**	**23983.**	**484.44**	**930.13**
Stddev	6.8	68.	3.68	2.94
%RSD	.34797	.28364	.75922	.31643
#1	1937.8	23929.	482.12	927.58
#2	1943.3	23961.	488.68	929.48
#3	1951.3	24059.	482.53	933.35

Sample Name: 580-29110-A-22-B Acquired: 10/19/2011 3:33:25 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	2.559	.3893	8.502	.8226
Stddev	.467	.0611	.386	.0022
%RSD	18.25	15.69	4.542	.2689
#1	3.094	.3902	8.476	.8222
#2	2.354	.3277	8.900	.8250
#3	2.231	.4499	8.129	.8207
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	2669.6	24544.	445.98	856.47
Stddev	11.2	115.	12.06	14.76
%RSD	.42003	.46958	2.7050	1.7233
#1	2660.5	24454.	451.25	862.08
#2	2666.2	24505.	432.18	839.73
#3	2682.1	24674.	454.52	867.60

Sample Name: 580-29110-A-23-B Acquired: 10/19/2011 3:39:26 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**396.7**	**78.08**	**432.8**	**113.5**
Stddev	3.7	.76	5.1	.8
%RSD	.9331	.9691	1.188	.6919
#1	394.0	78.92	427.9	113.0
#2	395.2	77.46	432.2	113.0
#3	400.9	77.85	438.2	114.4
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2086.6**	**23781.**	**457.87**	**871.61**
Stddev	11.5	174.	3.05	6.03
%RSD	.55296	.73372	.66508	.69215
#1	2094.0	23896.	461.03	866.65
#2	2092.6	23868.	457.62	869.85
#3	2073.3	23581.	454.96	878.33

Sample Name: 580-29110-A-23-B Acquired: 10/19/2011 3:45:22 Type: Unk
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: 1/100 Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**4.895**	**.7106**	**4.463**	**1.177**
Stddev	.750	.0347	.128	.009
%RSD	15.32	4.880	2.872	.7881
#1	4.312	.7050	4.333	1.187
#2	4.633	.7477	4.589	1.176
#3	5.741	.6791	4.467	1.169
Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2638.8**	**24125.**	**438.29**	**834.37**
Stddev	6.2	108.	5.71	13.22
%RSD	.23680	.44816	1.3021	1.5846
#1	2632.3	24036.	444.33	849.23
#2	2639.4	24094.	432.99	823.90
#3	2644.7	24245.	437.55	829.98

Sample Name: CCV Acquired: 10/19/2011 3:51:23 Type: QC
Method: 6010-2007Oct2011Master1(v5) Mode: CONC Corr. Factor: 1.000000
User: SPP Dilution: Analysts: Method:
Comment:

Elem	Al3082	Ca3158	Fe2599	Mg2790
Line	308.215 {109}	315.887 {107}	259.940 {130}	279.079 {121}
Units	ppm	mg/l	mg/l	mg/l
Avg	**10.64**	**19.87**	**10.98**	**18.93**
Stddev	.61	.26	.13	.04
%RSD	5.749	1.319	1.171	.2105
#1	11.23	19.57	11.04	18.95
#2	10.67	20.03	10.83	18.88
#3	10.01	20.00	11.07	18.95
Check ?	Chk Pass	Chk Pass	Chk Pass	Chk Pass
Value				
Range				

Int. Std.	In2306	Y_2243	Y_3600	Y_3774
Line	230.606 {446}	224.306 {450}	360.073 { 94}	377.433 { 89}
Units	Cts/S	Cts/S	Cts/S	Cts/S
Avg	**2424.5**	**23832.**	**430.99**	**824.06**
Stddev	5.6	38.	2.47	2.06
%RSD	.23026	.15832	.57218	.25032
#1	2418.1	23788.	428.15	821.98
#2	2427.7	23856.	432.25	824.10
#3	2427.8	23850.	432.57	826.10

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Blank

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 08:47:38
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\Blank.004

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be		ug/L			7.8	24.7
⌊>	Li	6	Li		ug/L			191344.4	4.2
⌈	Al	27	Al		ug/L			12660.1	4.1
|	Na	23	Na		ug/L			33003.6	1.7
|	Mg	24	Mg		ug/L			1654.5	12.6
|	P	31	P		ug/L			5192.1	6.2
|	K	39	K		ug/L			483115.8	0.9
|	Ca	44	Ca		ug/L			10060.2	2.0
⌊>	Sc	45	Sc		ug/L			1414190.8	1.2
⌈	Fe	54	Fe		ug/L			20353.9	0.4
|	Ti	47	Ti		ug/L			397.8	6.3
|	V	51	V		ug/L			2008.1	49.1
|	Cr	52	Cr		ug/L			5263.2	1.7
|	Mn	55	Mn		ug/L			3160.3	1.6
|	Co	59	Co		ug/L			183.3	15.9
|	Ni	60	Ni		ug/L			111.1	9.2
|	Cu	65	Cu		ug/L			113.3	10.6
|	Zn	68	Zn		ug/L			536.2	7.0
|	As	75	As		ug/L			3114.4	6.9
|	Se	82	Se		ug/L			88.9	14.2
⌊>	Ge	74	Ge		ug/L			1191781.8	0.6
⌈	Sr	88	Sr		ug/L			198.7	20.5
|	Mo	95	Mo		ug/L			26.7	21.7
|	Ag	107	Ag		ug/L			32.2	11.9
|	Cd	114	Cd		ug/L			42.2	44.2
|	Sn	118	Sn		ug/L			207.8	5.6
|	Sb	121	Sb		ug/L			58.9	11.8
|	Ba	137	Ba		ug/L			64.4	50.2
⌊>	Rh	103	Rh		ug/L			1076837.9	0.1
⌈	Tl	203	Tl		ug/L			48.9	41.1
|	Pb	208	Pb		ug/L			2197.8	2.8
|	U	238	U		ug/L			13.3	50.0
| >	Lu	175	Lu		ug/L			1052907.1	1.2
⌊	Hg	200	Hg		ug/L			21.1	39.7

Sample ID: Blank

Sample Date/Time: Wednesday, October 19, 2011 08:47:38
Dataset File: C:\elandata\DataSet\101811AM\Blank.004

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Standard 1

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 08:50:47
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\Standard 1.005

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.100**	ug/L	17.1	7.778	78.9	16.0
⌊>	Li	6	Li		ug/L		191344.413	203766.3	0.8
⌈	Al	27	Al	**1.000**	ug/L	4.9	12660.058	52857.7	3.9
|	Na	23	Na	**10.000**	ug/L	2.5	33003.642	119277.1	1.8
|	Mg	24	Mg	**10.000**	ug/L	2.0	1654.541	41499.1	2.1
|	P	31	P	**10.000**	ug/L	12.2	5192.057	8154.6	4.5
|	K	39	K	**10.000**	ug/L	3.8	483115.804	581942.6	1.0
|	Ca	44	Ca	**10.000**	ug/L	1.3	10060.209	15560.7	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1462081.1	0.5
⌈	Fe	54	Fe	**10.000**	ug/L	7.1	20353.921	86960.3	5.7
|	Ti	47	Ti	**0.100**	ug/L	117.8	397.783	466.7	15.9
|	V	51	V	**0.100**	ug/L	54.2	2008.119	3886.4	25.8
|	Cr	52	Cr	**0.100**	ug/L	2.0	5263.192	8067.8	0.4
|	Mn	55	Mn	**0.100**	ug/L	3.7	3160.350	9107.3	2.3
|	Co	59	Co	**0.100**	ug/L	13.7	183.335	1004.5	11.3
|	Ni	60	Ni	**0.100**	ug/L	1.1	111.112	9066.2	0.8
|	Cu	65	Cu	**0.100**	ug/L	13.5	113.334	557.8	10.6
|	Zn	68	Zn	**0.100**	ug/L	6.3	536.177	1221.2	3.4
|	As	75	As	**0.100**	ug/L	61.1	3114.424	2807.6	7.5
|	Se	82	Se	**0.100**	ug/L	21.8	88.890	102.2	2.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1211590.6	0.3
⌈	Sr	88	Sr	**0.100**	ug/L	0.9	198.650	2619.1	0.2
|	Mo	95	Mo	**0.100**	ug/L	21.7	26.667	282.2	20.4
|	Ag	107	Ag	**0.100**	ug/L	7.2	32.222	626.7	7.0
|	Cd	114	Cd	**0.100**	ug/L	14.6	42.204	386.1	12.4
|	Sn	118	Sn	**0.100**	ug/L	4.2	207.779	1306.7	4.2
|	Sb	121	Sb	**0.100**	ug/L	6.1	58.889	658.9	5.1
|	Ba	137	Ba	**0.100**	ug/L	6.8	64.445	426.7	6.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1079922.2	0.9
⌈	Tl	203	Tl	**0.100**	ug/L	1.2	48.889	545.6	1.5
|	Pb	208	Pb	**0.100**	ug/L	4.8	2197.844	4128.0	1.8
|	U	238	U	**0.100**	ug/L	6.0	13.333	2161.3	5.2
| >	Lu	175	Lu		ug/L		1052907.074	1065181.2	0.8
⌊	Hg	200	Hg	**0.005**	ug/L	489.8	21.111	18.9	66.8

Sample ID: Standard 1

Sample Date/Time: Wednesday, October 19, 2011 08:50:47
Dataset File: C:\elandata\DataSet\101811AM\Standard 1.005

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Standard 2

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 08:53:53
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\Standard 2.006

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.999**	ug/L	5.7	7.778	668.9	7.0
⌊>	Li	6	Li		ug/L		191344.413	208833.3	1.4
⌈	Al	27	Al	**9.758**	ug/L	1.7	12660.058	127762.2	1.3
|	Na	23	Na	**99.670**	ug/L	4.1	33003.642	679521.1	1.7
|	Mg	24	Mg	**99.963**	ug/L	1.2	1654.541	389260.3	1.2
|	P	31	P	**100.155**	ug/L	4.0	5192.057	38783.7	1.8
|	K	39	K	**99.898**	ug/L	3.7	483115.804	1260054.7	0.1
|	Ca	44	Ca	**99.118**	ug/L	1.7	10060.209	37979.3	1.1
⌊>	Sc	45	Sc		ug/L		1414190.814	1478207.2	2.4
⌈	Fe	54	Fe	**91.877**	ug/L	1.4	20353.921	88404.7	1.1
|	Ti	47	Ti	**1.002**	ug/L	10.1	397.783	1201.2	6.6
|	V	51	V	**0.991**	ug/L	36.0	2008.119	11762.4	29.6
|	Cr	52	Cr	**0.981**	ug/L	0.5	5263.192	14821.0	0.3
|	Mn	55	Mn	**0.970**	ug/L	1.8	3160.350	17874.5	1.6
|	Co	59	Co	**0.999**	ug/L	1.1	183.335	7954.4	1.0
|	Ni	60	Ni	**0.910**	ug/L	1.6	111.112	8389.1	1.5
|	Cu	65	Cu	**0.991**	ug/L	8.1	113.334	2493.6	7.9
|	Zn	68	Zn	**0.984**	ug/L	3.6	536.177	3116.4	3.1
|	As	75	As	**1.050**	ug/L	7.8	3114.424	4159.2	1.7
|	Se	82	Se	**1.001**	ug/L	8.0	88.890	228.9	4.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1225159.4	0.1
⌈	Sr	88	Sr	**0.994**	ug/L	2.8	198.650	15595.7	3.1
|	Mo	95	Mo	**0.999**	ug/L	7.5	26.667	2354.6	6.2
|	Ag	107	Ag	**1.000**	ug/L	1.3	32.222	5892.3	2.8
|	Cd	114	Cd	**1.000**	ug/L	2.9	42.204	3454.0	3.9
|	Sn	118	Sn	**0.985**	ug/L	1.6	207.779	4589.6	1.4
|	Sb	121	Sb	**0.998**	ug/L	1.6	58.889	5321.0	2.5
|	Ba	137	Ba	**0.995**	ug/L	7.0	64.445	2536.9	6.3
⌊>	Rh	103	Rh		ug/L		1076837.936	1092190.3	1.5
⌈	Tl	203	Tl	**1.001**	ug/L	2.4	48.889	5572.2	2.8
|	Pb	208	Pb	**1.000**	ug/L	0.3	2197.844	21087.2	1.3
|	U	238	U	**1.000**	ug/L	0.3	13.333	20926.4	0.8
| >	Lu	175	Lu		ug/L		1052907.074	1082982.4	1.1
⌊	Hg	200	Hg	**0.051**	ug/L	37.1	21.111	98.9	29.1

Sample ID: Standard 2

Sample Date/Time: Wednesday, October 19, 2011 08:53:53
Dataset File: C:\elandata\DataSet\101811AM\Standard 2.006

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Standard 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 08:57:01
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\Standard 3.007

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**9.998**	ug/L	1.6	7.778	6579.3	2.4
⌊>	Li	6	Li		ug/L		191344.413	211036.3	1.0
⌈	Al	27	Al	**98.974**	ug/L	1.5	12660.058	592560.7	1.1
|	Na	23	Na	**999.512**	ug/L	3.1	33003.642	6237064.6	2.4
|	Mg	24	Mg	**1000.310**	ug/L	0.6	1654.541	4022281.6	0.7
|	P	31	P	**1000.040**	ug/L	1.0	5192.057	341607.2	0.1
|	K	39	K	**1000.423**	ug/L	0.8	483115.804	8441411.8	0.2
|	Ca	44	Ca	**998.515**	ug/L	0.9	10060.209	252964.5	0.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1485255.0	1.0
⌈	Fe	54	Fe	**996.665**	ug/L	0.9	20353.921	575435.6	0.6
|	Ti	47	Ti	**10.004**	ug/L	1.7	397.783	8699.3	1.6
|	V	51	V	**9.990**	ug/L	1.2	2008.119	91593.5	1.1
|	Cr	52	Cr	**9.974**	ug/L	1.7	5263.192	82297.5	1.2
|	Mn	55	Mn	**9.976**	ug/L	1.3	3160.350	125995.4	0.7
|	Co	59	Co	**10.001**	ug/L	0.6	183.335	79626.9	1.2
|	Ni	60	Ni	**9.599**	ug/L	1.3	111.112	17793.3	1.4
|	Cu	65	Cu	**9.974**	ug/L	0.8	113.334	19346.4	1.4
|	Zn	68	Zn	**9.886**	ug/L	0.2	536.177	12747.2	0.6
|	As	75	As	**10.033**	ug/L	1.2	3114.424	17000.1	1.1
|	Se	82	Se	**9.992**	ug/L	4.3	88.890	1367.9	3.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1234260.7	0.6
⌈	Sr	88	Sr	**9.992**	ug/L	0.3	198.650	145926.7	1.2
|	Mo	95	Mo	**10.000**	ug/L	0.8	26.667	23806.5	1.3
|	Ag	107	Ag	**10.000**	ug/L	1.7	32.222	59881.9	0.7
|	Cd	114	Cd	**10.001**	ug/L	2.8	42.204	35190.7	2.0
|	Sn	118	Sn	**9.992**	ug/L	1.1	207.779	42325.9	0.5
|	Sb	121	Sb	**10.000**	ug/L	1.0	58.889	53672.9	1.8
|	Ba	137	Ba	**9.987**	ug/L	1.5	64.445	22564.5	0.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1115250.7	1.0
⌈	Tl	203	Tl	**10.001**	ug/L	2.8	48.889	57443.1	1.8
|	Pb	208	Pb	**9.999**	ug/L	1.3	2197.844	194381.9	0.7
|	U	238	U	**10.001**	ug/L	2.4	13.333	217352.5	1.9
| >	Lu	175	Lu		ug/L		1052907.074	1111117.0	1.1
⌊	Hg	200	Hg	**0.499**	ug/L	4.7	21.111	705.6	4.8

Sample ID: Standard 3

Sample Date/Time: Wednesday, October 19, 2011 08:57:01
Dataset File: C:\elandata\DataSet\101811AM\Standard 3.007

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Standard 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 09:00:10
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\Standard 4.008

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**50.029**	ug/L	3.3	7.778	31427.9	2.9
⌊>	Li	6	Li		ug/L		191344.413	198824.2	1.3
⌈	Al	27	Al	**496.914**	ug/L	1.1	12660.058	2460717.5	1.9
|	Na	23	Na	**4985.843**	ug/L	0.6	33003.642	28088074.5	1.4
|	Mg	24	Mg	**4991.594**	ug/L	0.8	1654.541	18688410.4	1.5
|	P	31	P	**4988.778**	ug/L	0.6	5192.057	1546544.9	0.3
|	K	39	K	**4988.988**	ug/L	1.5	483115.804	36890682.2	0.7
|	Ca	44	Ca	**4986.548**	ug/L	0.2	10060.209	1111368.8	1.1
⌊>	Sc	45	Sc		ug/L		1414190.814	1440870.6	0.9
⌈	Fe	54	Fe	**5008.398**	ug/L	2.3	20353.921	2849378.5	1.7
|	Ti	47	Ti	**49.964**	ug/L	2.1	397.783	39980.3	1.5
|	V	51	V	**49.943**	ug/L	1.2	2008.119	425720.5	1.0
|	Cr	52	Cr	**49.842**	ug/L	1.6	5263.192	351957.7	1.3
|	Mn	55	Mn	**49.866**	ug/L	1.3	3160.350	563175.5	0.8
|	Co	59	Co	**49.934**	ug/L	1.3	183.335	373927.4	0.8
|	Ni	60	Ni	**49.702**	ug/L	1.1	111.112	77739.9	1.3
|	Cu	65	Cu	**49.776**	ug/L	2.8	113.334	84191.9	2.3
|	Zn	68	Zn	**49.268**	ug/L	0.5	536.177	43945.7	0.7
|	As	75	As	**50.040**	ug/L	1.4	3114.424	71363.1	1.8
|	Se	82	Se	**49.979**	ug/L	1.1	88.890	6239.2	0.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1201344.6	0.6
⌈	Sr	88	Sr	**49.917**	ug/L	2.0	198.650	670834.9	1.0
|	Mo	95	Mo	**49.967**	ug/L	1.7	26.667	112156.3	0.2
|	Ag	107	Ag	**49.994**	ug/L	2.4	32.222	286120.4	1.0
|	Cd	114	Cd	**49.957**	ug/L	1.7	42.204	164963.3	0.4
|	Sn	118	Sn	**49.982**	ug/L	2.5	207.779	200454.4	0.6
|	Sb	121	Sb	**50.010**	ug/L	2.4	58.889	258358.7	0.5
|	Ba	137	Ba	**49.938**	ug/L	2.2	64.445	104757.1	0.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1069711.0	1.9
⌈	Tl	203	Tl	**49.982**	ug/L	0.5	48.889	270034.0	1.1
|	Pb	208	Pb	**49.949**	ug/L	0.1	2197.844	890852.2	0.8
|	U	238	U	**49.930**	ug/L	1.0	13.333	996022.9	0.4
| >	Lu	175	Lu		ug/L		1052907.074	1055159.6	0.6
⌊	Hg	200	Hg	**2.493**	ug/L	0.6	21.111	3045.9	1.1

Sample ID: Standard 4

Sample Date/Time: Wednesday, October 19, 2011 09:00:10
Dataset File: C:\elandata\DataSet\101811AM\Standard 4.008

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: Standard 5

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 09:03:19
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\Standard 5.009

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**99.939**	ug/L	0.8	7.778	62067.9	2.3
⌊>	Li	6	Li		ug/L		191344.413	197009.3	1.5
⌈	Al	27	Al	**1004.194**	ug/L	1.5	12660.058	4877233.1	1.1
|	Na	23	Na	**10054.852**	ug/L	1.1	33003.642	55956567.9	0.8
|	Mg	24	Mg	**10006.254**	ug/L	1.1	1654.541	36335239.7	0.6
|	P	31	P	**10138.831**	ug/L	1.1	5192.057	3207090.7	0.4
|	K	39	K	**10029.960**	ug/L	1.4	483115.804	72114758.0	0.9
|	Ca	44	Ca	**10173.956**	ug/L	0.6	10060.209	2339703.9	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1394302.9	0.7
⌈	Fe	54	Fe	**10029.579**	ug/L	3.2	20353.921	5581326.5	2.0
|	Ti	47	Ti	**99.786**	ug/L	1.4	397.783	76493.1	0.0
|	V	51	V	**99.930**	ug/L	1.8	2008.119	822583.4	0.5
|	Cr	52	Cr	**100.204**	ug/L	3.4	5263.192	686860.8	2.0
|	Mn	55	Mn	**99.824**	ug/L	2.6	3160.350	1083760.3	1.2
|	Co	59	Co	**99.966**	ug/L	2.0	183.335	725457.9	0.7
|	Ni	60	Ni	**99.775**	ug/L	0.5	111.112	150080.9	0.9
|	Cu	65	Cu	**100.069**	ug/L	2.2	113.334	164607.4	0.8
|	Zn	68	Zn	**100.122**	ug/L	1.3	536.177	86546.6	0.4
|	As	75	As	**99.784**	ug/L	2.3	3114.424	133989.5	1.1
|	Se	82	Se	**100.440**	ug/L	1.3	88.890	12290.4	1.9
⌊>	Ge	74	Ge		ug/L		1191781.780	1166185.5	1.4
⌈	Sr	88	Sr	**99.838**	ug/L	0.8	198.650	1303697.4	0.6
|	Mo	95	Mo	**100.681**	ug/L	0.8	26.667	226896.6	0.8
|	Ag	107	Ag	**99.854**	ug/L	0.4	32.222	555700.9	0.4
|	Cd	114	Cd	**100.071**	ug/L	0.6	42.204	323976.8	0.8
|	Sn	118	Sn	**100.014**	ug/L	0.9	207.779	392270.8	0.9
|	Sb	121	Sb	**99.988**	ug/L	1.5	58.889	504871.9	1.3
|	Ba	137	Ba	**100.038**	ug/L	1.0	64.445	205455.8	0.9
⌊>	Rh	103	Rh		ug/L		1076837.936	1045819.2	0.2
⌈	Tl	203	Tl	**99.632**	ug/L	2.5	48.889	528232.9	1.8
|	Pb	208	Pb	**99.184**	ug/L	2.5	2197.844	1705072.6	1.6
|	U	238	U	**98.921**	ug/L	2.6	13.333	1885881.2	1.7
| >	Lu	175	Lu		ug/L		1052907.074	1050357.7	0.9
⌊	Hg	200	Hg	**5.037**	ug/L	3.7	21.111	6279.2	2.8

Sample ID: Standard 5

Sample Date/Time: Wednesday, October 19, 2011 09:03:19
Dataset File: C:\elandata\DataSet\101811AM\Standard 5.009

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS
Quantitative Analysis Calibration Report

File Name:
File Path:
Calibration Type: External Calibration

(Dual Detector Mode)

Analyte	Mass	Curve Type	Slope	Intercept	***Corr. Coeff.***
Be	9.012	Linear Thru Zero	0.00	0.00	***0.999998***
Li	6.015	Linear Thru Zero	0.00	0.00	***0.000000***
Al	26.982	Linear Thru Zero	0.00	0.00	***0.999806***
Na	22.990	Linear Thru Zero	0.00	0.00	***0.999922***
Mg	23.985	Linear Thru Zero	0.00	0.00	***0.999992***
P	30.994	Linear Thru Zero	0.00	0.00	***0.999618***
K	38.964	Linear Thru Zero	0.01	0.00	***0.999971***
Ca	43.956	Linear Thru Zero	0.00	0.00	***0.999401***
Sc	44.956	Linear Thru Zero	0.00	0.00	***0.000000***
Fe	53.940	Linear Thru Zero	0.00	0.00	***0.999930***
Ti	46.952	Linear Thru Zero	0.00	0.00	***0.999990***
V	50.944	Linear Thru Zero	0.01	0.00	***0.999995***
Cr	51.941	Linear Thru Zero	0.01	0.00	***0.999961***
Mn	54.938	Linear Thru Zero	0.01	0.00	***0.999967***
Co	58.933	Linear Thru Zero	0.01	0.00	***0.999995***
Ni	59.933	Linear Thru Zero	0.00	0.00	***0.997982***
Cu	64.928	Linear Thru Zero	0.00	0.00	***0.999944***
Zn	67.925	Linear Thru Zero	0.00	0.00	***0.999351***
As	74.922	Linear Thru Zero	0.00	0.00	***0.999981***
Se	81.917	Linear Thru Zero	0.00	0.00	***0.999962***
Ge	73.922	Linear Thru Zero	0.00	0.00	***0.000000***
Sr	87.906	Linear Thru Zero	0.01	0.00	***0.999987***
Mo	94.906	Linear Thru Zero	0.00	0.00	***0.999910***
Ag	106.905	Linear Thru Zero	0.01	0.00	***0.999996***
Cd	113.904	Linear Thru Zero	0.00	0.00	***0.999997***
Sn	117.902	Linear Thru Zero	0.00	0.00	***0.999998***
Sb	120.904	Linear Thru Zero	0.00	0.00	***1.000000***
Ba	136.905	Linear Thru Zero	0.00	0.00	***0.999995***
Rh	102.905	Linear Thru Zero	0.00	0.00	***0.000000***

Report Date/Time: Wednesday, October 19, 2011 15:26:26
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Tl	202.972	Linear Thru Zero	0.01	0.00	***0.999974***
Pb	207.977	Linear Thru Zero	0.02	0.00	***0.999869***
U	238.050	Linear Thru Zero	0.02	0.00	***0.999771***
Lu	174.941	Linear Thru Zero	0.00	0.00	***0.000000***
Hg	199.968	Linear Thru Zero	0.00	0.00	***0.999875***

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 2 PPB (CRI)

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 09:12:50
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\2 PPB (CRI).012

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**1.847**	ug/L	5.5	7.778	1165.6	5.1
⌊>	Li	6	Li		ug/L		191344.413	198878.3	1.4
⌈	Al	27	Al	**20.604**	ug/L	0.4	12660.058	117711.9	1.3
|	Na	23	Na	**187.567**	ug/L	3.0	33003.642	1127329.8	1.3
|	Mg	24	Mg	**195.189**	ug/L	1.1	1654.541	744582.8	0.6
|	P	31	P	**194.246**	ug/L	0.8	5192.057	69666.1	0.8
|	K	39	K	**183.738**	ug/L	3.6	483115.804	1874494.2	1.3
|	Ca	44	Ca	**190.018**	ug/L	1.9	10060.209	55998.4	0.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1461527.0	1.6
⌈	Fe	54	Fe	**189.453**	ug/L	2.1	20353.921	131121.1	1.1
|	Ti	47	Ti	**1.820**	ug/L	2.9	397.783	1864.6	2.3
|	V	51	V	**2.123**	ug/L	2.0	2008.119	20354.7	0.8
|	Cr	52	Cr	**2.099**	ug/L	3.5	5263.192	20384.5	1.6
|	Mn	55	Mn	**2.058**	ug/L	0.8	3160.350	26619.2	1.5
|	Co	59	Co	**2.090**	ug/L	2.3	183.335	16099.1	2.3
|	Ni	60	Ni	**2.319**	ug/L	2.6	111.112	3771.6	3.2
|	Cu	65	Cu	**2.003**	ug/L	2.5	113.334	3570.4	2.4
|	Zn	68	Zn	**2.028**	ug/L	1.9	536.177	2378.3	1.7
|	As	75	As	**1.969**	ug/L	4.9	3114.424	5907.9	1.3
|	Se	82	Se	**2.082**	ug/L	1.6	88.890	356.7	1.6
⌊>	Ge	74	Ge		ug/L		1191781.780	1223446.3	1.0
⌈	Sr	88	Sr	**2.066**	ug/L	2.1	198.650	28742.0	0.8
|	Mo	95	Mo	**1.951**	ug/L	1.8	26.667	4680.8	2.7
|	Ag	107	Ag	**2.008**	ug/L	1.9	32.222	11854.9	1.7
|	Cd	114	Cd	**1.957**	ug/L	0.5	42.204	6747.7	0.9
|	Sn	118	Sn	**1.972**	ug/L	3.5	207.779	8392.5	2.2
|	Sb	121	Sb	**1.980**	ug/L	4.0	58.889	10638.4	2.8
|	Ba	137	Ba	**1.983**	ug/L	2.1	64.445	4374.0	1.8
⌊>	Rh	103	Rh		ug/L		1076837.936	1106708.0	1.3
⌈	Tl	203	Tl	**2.062**	ug/L	3.9	48.889	11094.3	3.4
|	Pb	208	Pb	**2.060**	ug/L	1.2	2197.844	37955.3	0.5
|	U	238	U	**2.121**	ug/L	0.2	13.333	40878.4	1.0
| >	Lu	175	Lu		ug/L		1052907.074	1061140.3	1.2
⌊	Hg	200	Hg	**0.136**	ug/L	20.8	21.111	192.2	17.4

Sample ID: 2 PPB (CRI)

Sample Date/Time: Wednesday, October 19, 2011 09:12:50
Dataset File: C:\elandata\DataSet\101811AM\2 PPB (CRI).012

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.937
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.347
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		102.657
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		102.774
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.782
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: ICSA

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 09:15:58
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\ICSA.013

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.001**	ug/L	462.0	7.778	8.9	43.3
⌊>	Li	6	Li		ug/L		191344.413	198167.2	0.6
⌈	Al	27	Al	**18993.443**	ug/L	1.7	12660.058	96131018.9	1.4
|	Na	23	Na	**51249.949**	ug/L	1.2	33003.642	297796325.5	0.8
|	Mg	24	Mg	**20340.917**	ug/L	1.1	1654.541	77157488.1	0.7
|	P	31	P	**19451.603**	ug/L	1.3	5192.057	6422514.7	1.0
|	K	39	K	**20240.131**	ug/L	1.4	483115.804	151512770.8	1.0
|	Ca	44	Ca	**60096.745**	ug/L	0.8	10060.209	14385652.0	0.5
⌊>	Sc	45	Sc		ug/L		1414190.814	1456494.0	0.4
⌈	Fe	54	Fe	**48569.585**	ug/L	0.3	20353.921	28562060.8	0.5
|	Ti	47	Ti	**342.365**	ug/L	1.1	397.783	277087.2	1.2
|	V	51	V	**-0.041**	ug/L	237.0	2008.119	1726.5	49.0
|	Cr	52	Cr	**1.178**	ug/L	2.7	5263.192	13949.0	1.8
|	Mn	55	Mn	**0.263**	ug/L	4.0	3160.350	6294.7	2.3
|	Co	59	Co	**0.125**	ug/L	4.5	183.335	1148.9	3.5
|	Ni	60	Ni	**1.287**	ug/L	6.9	111.112	2165.7	6.8
|	Cu	65	Cu	**0.836**	ug/L	2.3	113.334	1573.4	1.8
|	Zn	68	Zn	**1.430**	ug/L	7.2	536.177	1857.4	5.2
|	As	75	As	**-0.048**	ug/L	212.4	3114.424	3161.6	4.8
|	Se	82	Se	**0.048**	ug/L	68.4	88.890	98.3	4.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1235527.8	0.3
⌈	Sr	88	Sr	**-1.254**	ug/L	2.0	198.650	-16931.6	1.3
|	Mo	95	Mo	**401.191**	ug/L	0.9	26.667	945816.2	1.5
|	Ag	107	Ag	**0.035**	ug/L	12.2	32.222	235.6	11.0
|	Cd	114	Cd	**0.660**	ug/L	1.3	42.204	2278.9	0.5
|	Sn	118	Sn	**0.051**	ug/L	18.7	207.779	418.9	9.9
|	Sb	121	Sb	**0.137**	ug/L	5.7	58.889	782.2	4.9
|	Ba	137	Ba	**0.093**	ug/L	15.0	64.445	264.4	11.7
⌊>	Rh	103	Rh		ug/L		1076837.936	1094091.2	0.7
⌈	Tl	203	Tl	**0.055**	ug/L	6.7	48.889	342.2	5.7
|	Pb	208	Pb	**0.016**	ug/L	47.6	2197.844	2479.0	5.1
|	U	238	U	**0.004**	ug/L	19.1	13.333	98.9	16.6
| >	Lu	175	Lu		ug/L		1052907.074	1058293.9	0.1
⌊	Hg	200	Hg	**0.019**	ug/L	51.8	21.111	45.6	27.7

Sample ID: ICSA

Sample Date/Time: Wednesday, October 19, 2011 09:15:58
Dataset File: C:\elandata\DataSet\101811AM\ICSA.013

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.566
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.991
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.671
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.602
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.512
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: ICSAB

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 09:19:06
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\ICSAB.014

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.001**	ug/L	823.7	7.778	7.8	49.5
⌊>	Li	6	Li		ug/L		191344.413	201321.2	2.0
⌈	Al	27	Al	**19232.279**	ug/L	2.3	12660.058	95214238.0	2.3
|	Na	23	Na	**51547.764**	ug/L	1.7	33003.642	292981714.2	1.5
|	Mg	24	Mg	**20176.367**	ug/L	2.3	1654.541	74857316.6	1.9
|	P	31	P	**19990.021**	ug/L	2.7	5192.057	6455764.0	2.5
|	K	39	K	**20369.809**	ug/L	0.3	483115.804	149151507.3	0.2
|	Ca	44	Ca	**60022.067**	ug/L	0.2	10060.209	14054043.6	0.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1424663.0	0.5
⌈	Fe	54	Fe	**48297.486**	ug/L	1.4	20353.921	28295663.8	1.3
|	Ti	47	Ti	**338.206**	ug/L	0.2	397.783	272707.3	0.8
|	V	51	V	**39.843**	ug/L	2.3	2008.119	347458.8	1.8
|	Cr	52	Cr	**40.454**	ug/L	1.2	5263.192	296028.5	1.7
|	Mn	55	Mn	**39.732**	ug/L	0.9	3160.350	457367.3	0.5
|	Co	59	Co	**39.683**	ug/L	2.4	183.335	304099.8	1.5
|	Ni	60	Ni	**39.488**	ug/L	2.6	111.112	62759.8	2.0
|	Cu	65	Cu	**38.228**	ug/L	1.3	113.334	66456.4	0.5
|	Zn	68	Zn	**20.539**	ug/L	1.9	536.177	19180.1	0.9
|	As	75	As	**19.899**	ug/L	0.4	3114.424	30785.3	1.0
|	Se	82	Se	**19.523**	ug/L	3.2	88.890	2595.3	2.6
⌊>	Ge	74	Ge		ug/L		1191781.780	1230948.2	0.9
⌈	Sr	88	Sr	**-1.158**	ug/L	6.8	198.650	-15380.1	6.4
|	Mo	95	Mo	**406.594**	ug/L	0.8	26.667	944210.2	0.4
|	Ag	107	Ag	**10.129**	ug/L	1.3	32.222	58120.2	0.7
|	Cd	114	Cd	**21.129**	ug/L	0.6	42.204	70524.9	0.3
|	Sn	118	Sn	**0.040**	ug/L	15.1	207.779	367.8	7.3
|	Sb	121	Sb	**0.129**	ug/L	4.8	58.889	732.2	3.7
|	Ba	137	Ba	**0.121**	ug/L	10.4	64.445	320.0	8.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1077784.6	0.8
⌈	Tl	203	Tl	**0.032**	ug/L	14.6	48.889	222.2	11.4
|	Pb	208	Pb	**0.078**	ug/L	4.4	2197.844	3599.1	1.4
|	U	238	U	**0.004**	ug/L	16.1	13.333	87.8	13.3
| >	Lu	175	Lu		ug/L		1052907.074	1069730.6	0.3
⌊	Hg	200	Hg	**0.003**	ug/L	366.3	21.111	25.6	58.8

Sample ID: ICSAB

Sample Date/Time: Wednesday, October 19, 2011 09:19:06
Dataset File: C:\elandata\DataSet\101811AM\ICSAB.014

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		105.214
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		100.741
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.286
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.088
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.598
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: ICV

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 10:54:01
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\ICV.015

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**40.199**	ug/L	4.0	7.778	25110.9	2.1
⌊>	Li	6	Li		ug/L		191344.413	198232.9	1.9
⌈	Al	27	Al	**375.049**	ug/L	1.1	12660.058	1869597.3	1.6
|	Na	23	Na	**4051.452**	ug/L	1.8	33003.642	23060046.1	1.6
|	Mg	24	Mg	**4023.463**	ug/L	1.8	1654.541	14930850.5	1.4
|	P	31	P	**3933.737**	ug/L	1.0	5192.057	1274791.5	1.1
|	K	39	K	**4143.483**	ug/L	1.5	483115.804	30729369.9	1.2
|	Ca	44	Ca	**3839.059**	ug/L	0.4	10060.209	908487.2	0.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1424818.9	0.6
⌈	Fe	54	Fe	**4008.228**	ug/L	1.2	20353.921	2331553.9	1.9
|	Ti	47	Ti	**39.325**	ug/L	2.1	397.783	31579.3	1.4
|	V	51	V	**40.036**	ug/L	0.4	2008.119	343814.1	0.5
|	Cr	52	Cr	**39.617**	ug/L	2.5	5263.192	285540.4	1.7
|	Mn	55	Mn	**40.684**	ug/L	0.2	3160.350	461106.0	0.8
|	Co	59	Co	**40.361**	ug/L	1.5	183.335	304613.0	1.8
|	Ni	60	Ni	**40.091**	ug/L	1.4	111.112	62747.5	0.9
|	Cu	65	Cu	**39.857**	ug/L	0.3	113.334	68228.1	0.9
|	Zn	68	Zn	**41.371**	ug/L	2.0	536.177	37492.1	1.7
|	As	75	As	**40.577**	ug/L	1.2	3114.424	58523.5	1.4
|	Se	82	Se	**39.189**	ug/L	2.5	88.890	5039.3	2.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1212119.7	0.7
⌈	Sr	88	Sr	**40.732**	ug/L	0.9	198.650	553477.6	1.0
|	Mo	95	Mo	**40.129**	ug/L	0.4	26.667	94102.3	0.5
|	Ag	107	Ag	**40.380**	ug/L	1.5	32.222	233835.6	2.3
|	Cd	114	Cd	**39.923**	ug/L	0.8	42.204	134500.2	1.6
|	Sn	118	Sn	**39.751**	ug/L	0.3	207.779	162335.0	1.0
|	Sb	121	Sb	**40.326**	ug/L	0.7	58.889	211874.1	0.2
|	Ba	137	Ba	**39.420**	ug/L	1.9	64.445	84264.5	1.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1088046.3	0.8
⌈	Tl	203	Tl	**40.373**	ug/L	0.9	48.889	211099.4	0.7
|	Pb	208	Pb	**41.103**	ug/L	1.2	2197.844	698035.8	0.6
|	U	238	U	**40.894**	ug/L	1.8	13.333	768757.7	1.2
| >	Lu	175	Lu		ug/L		1052907.074	1035626.2	0.7
⌊	Hg	200	Hg	**2.005**	ug/L	3.6	21.111	2478.0	4.1

Sample ID: ICV

Sample Date/Time: Wednesday, October 19, 2011 10:54:01
Dataset File: C:\elandata\DataSet\101811AM\ICV.015

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.600
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		100.752
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.707
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.041
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		98.359
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: ICB

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 10:57:10
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\ICB.016

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.004**	ug/L	82.7	7.778	5.6	34.6
⌊>	Li	6	Li		ug/L		191344.413	197455.6	2.1
⌈	Al	27	Al	**0.305**	ug/L	19.0	12660.058	14111.4	2.1
|	Na	23	Na	**-1.246**	ug/L	9.6	33003.642	25890.1	2.8
|	Mg	24	Mg	**0.022**	ug/L	132.2	1654.541	1730.1	5.9
|	P	31	P	**0.136**	ug/L	188.3	5192.057	5218.7	2.0
|	K	39	K	**3.534**	ug/L	5.7	483115.804	507060.0	0.7
|	Ca	44	Ca	**-4.006**	ug/L	23.6	10060.209	9099.6	2.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1409573.7	0.4
⌈	Fe	54	Fe	**3.732**	ug/L	9.9	20353.921	22424.4	0.5
|	Ti	47	Ti	**-0.132**	ug/L	8.0	397.783	294.4	2.4
|	V	51	V	**-0.096**	ug/L	5.0	2008.119	1202.3	3.5
|	Cr	52	Cr	**0.015**	ug/L	179.5	5263.192	5355.4	2.9
|	Mn	55	Mn	**-0.074**	ug/L	5.1	3160.350	2339.1	2.2
|	Co	59	Co	**0.012**	ug/L	31.4	183.335	273.3	10.6
|	Ni	60	Ni	**0.015**	ug/L	88.3	111.112	133.3	15.2
|	Cu	65	Cu	**-0.019**	ug/L	10.7	113.334	81.1	4.7
|	Zn	68	Zn	**0.171**	ug/L	18.7	536.177	685.2	4.6
|	As	75	As	**0.065**	ug/L	72.8	3114.424	3195.2	2.2
|	Se	82	Se	**0.072**	ug/L	339.5	88.890	97.8	31.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1189432.9	0.5
⌈	Sr	88	Sr	**0.002**	ug/L	141.1	198.650	230.3	20.0
|	Mo	95	Mo	**0.054**	ug/L	12.2	26.667	152.2	10.8
|	Ag	107	Ag	**0.002**	ug/L	14.9	32.222	41.1	4.7
|	Cd	114	Cd	**0.001**	ug/L	183.8	42.204	45.6	14.6
|	Sn	118	Sn	**0.245**	ug/L	17.0	207.779	1198.9	14.2
|	Sb	121	Sb	**0.044**	ug/L	14.6	58.889	288.9	11.6
|	Ba	137	Ba	**-0.001**	ug/L	582.4	64.445	63.3	13.9
⌊>	Rh	103	Rh		ug/L		1076837.936	1079533.4	1.5
⌈	Tl	203	Tl	**0.132**	ug/L	24.9	48.889	727.8	21.8
|	Pb	208	Pb	**-0.001**	ug/L	446.0	2197.844	2117.8	5.5
|	U	238	U	**0.018**	ug/L	23.2	13.333	353.3	21.3
| >	Lu	175	Lu		ug/L		1052907.074	1025806.2	2.1
⌊	Hg	200	Hg	**0.032**	ug/L	35.6	21.111	58.9	23.6

Sample ID: ICB

Sample Date/Time: Wednesday, October 19, 2011 10:57:10
Dataset File: C:\elandata\DataSet\101811AM\ICB.016

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.194
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		99.674
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.803
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.250
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		97.426
⌊	Hg	200	Hg		

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 11:00:21
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.017

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**47.778**	ug/L	1.6	7.778	30024.9	0.3
⌊>	Li	6	Li		ug/L		191344.413	199371.9	1.8
⌈	Al	27	Al	**486.846**	ug/L	2.2	12660.058	2405240.0	1.8
|	Na	23	Na	**4898.401**	ug/L	1.5	33003.642	27670886.6	1.1
|	Mg	24	Mg	**5010.913**	ug/L	1.5	1654.541	18459447.7	0.7
|	P	31	P	**4775.495**	ug/L	2.4	5192.057	1534933.0	0.4
|	K	39	K	**5020.882**	ug/L	1.4	483115.804	36867373.3	2.0
|	Ca	44	Ca	**4725.870**	ug/L	0.4	10060.209	1107989.3	1.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1414627.7	2.0
⌈	Fe	54	Fe	**4967.181**	ug/L	1.0	20353.921	2824826.7	0.2
|	Ti	47	Ti	**49.453**	ug/L	2.5	397.783	38792.6	1.7
|	V	51	V	**50.040**	ug/L	0.9	2008.119	420381.1	0.2
|	Cr	52	Cr	**49.846**	ug/L	1.2	5263.192	350553.5	0.7
|	Mn	55	Mn	**50.630**	ug/L	0.4	3160.350	561270.6	0.8
|	Co	59	Co	**50.424**	ug/L	1.7	183.335	372669.1	1.6
|	Ni	60	Ni	**50.892**	ug/L	3.2	111.112	77975.6	2.5
|	Cu	65	Cu	**50.045**	ug/L	2.1	113.334	83868.8	1.4
|	Zn	68	Zn	**49.611**	ug/L	0.7	536.177	43930.8	0.7
|	As	75	As	**50.635**	ug/L	0.8	3114.424	70757.9	0.5
|	Se	82	Se	**49.108**	ug/L	2.5	88.890	6161.9	1.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1187205.4	0.8
⌈	Sr	88	Sr	**50.863**	ug/L	0.9	198.650	671662.0	0.9
|	Mo	95	Mo	**49.741**	ug/L	1.9	26.667	113354.7	1.6
|	Ag	107	Ag	**50.756**	ug/L	1.0	32.222	285612.4	0.2
|	Cd	114	Cd	**49.792**	ug/L	1.6	42.204	163001.8	0.7
|	Sn	118	Sn	**49.949**	ug/L	2.3	207.779	198173.1	1.7
|	Sb	121	Sb	**50.215**	ug/L	1.8	58.889	256387.1	1.0
|	Ba	137	Ba	**49.371**	ug/L	3.0	64.445	102543.5	2.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1057484.6	0.9
⌈	Tl	203	Tl	**50.830**	ug/L	0.6	48.889	261630.1	1.8
|	Pb	208	Pb	**50.721**	ug/L	1.9	2197.844	847370.6	1.6
|	U	238	U	**50.932**	ug/L	1.0	13.333	942585.2	1.8
| >	Lu	175	Lu		ug/L		1052907.074	1019481.3	1.7
⌊	Hg	200	Hg	**2.464**	ug/L	3.9	21.111	2991.4	2.1

Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 19, 2011 11:00:21
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.017

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	95.556	
⌊>	Li	6	Li		104.195
⌈	Al	27	Al	97.369	
|	Na	23	Na	97.968	
|	Mg	24	Mg	100.218	
|	P	31	P	95.510	
|	K	39	K	100.418	
|	Ca	44	Ca	94.517	
⌊>	Sc	45	Sc		100.031
⌈	Fe	54	Fe	99.344	
|	Ti	47	Ti	98.906	
|	V	51	V	100.079	
|	Cr	52	Cr	99.692	
|	Mn	55	Mn	101.260	
|	Co	59	Co	100.848	
|	Ni	60	Ni	101.784	
|	Cu	65	Cu	100.089	
|	Zn	68	Zn	99.222	
|	As	75	As	101.271	
|	Se	82	Se	98.216	
⌊>	Ge	74	Ge		99.616
⌈	Sr	88	Sr	101.725	
|	Mo	95	Mo	99.483	
|	Ag	107	Ag	101.511	
|	Cd	114	Cd	99.583	
|	Sn	118	Sn	99.898	
|	Sb	121	Sb	100.430	
|	Ba	137	Ba	98.743	
⌊>	Rh	103	Rh		98.203
⌈	Tl	203	Tl	101.661	
|	Pb	208	Pb	101.442	
|	U	238	U	101.865	
|>	Lu	175	Lu		96.825
⌊	Hg	200	Hg	98.563	

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 11:03:33
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.018

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.005**	ug/L	271.8	7.778	11.1	75.5
⌊>	Li	6	Li		ug/L		191344.413	195967.3	3.8
⌈	Al	27	Al	**0.289**	ug/L	43.6	12660.058	13807.8	3.3
|	Na	23	Na	**-1.270**	ug/L	10.3	33003.642	25340.2	1.4
|	Mg	24	Mg	**0.030**	ug/L	217.5	1654.541	1730.1	13.6
|	P	31	P	**0.396**	ug/L	43.4	5192.057	5217.6	1.3
|	K	39	K	**2.852**	ug/L	41.5	483115.804	494118.0	0.5
|	Ca	44	Ca	**-4.629**	ug/L	43.8	10060.209	8809.4	3.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1387315.5	1.6
⌈	Fe	54	Fe	**3.053**	ug/L	16.5	20353.921	21975.3	1.3
|	Ti	47	Ti	**-0.191**	ug/L	25.2	397.783	247.8	15.3
|	V	51	V	**0.197**	ug/L	99.8	2008.119	3648.3	45.3
|	Cr	52	Cr	**0.026**	ug/L	37.0	5263.192	5418.8	1.1
|	Mn	55	Mn	**-0.077**	ug/L	12.2	3160.350	2296.9	4.7
|	Co	59	Co	**0.011**	ug/L	22.6	183.335	261.1	7.0
|	Ni	60	Ni	**0.020**	ug/L	34.1	111.112	141.1	7.6
|	Cu	65	Cu	**-0.016**	ug/L	63.5	113.334	85.6	20.0
|	Zn	68	Zn	**0.179**	ug/L	48.0	536.177	690.3	10.8
|	As	75	As	**0.018**	ug/L	111.9	3114.424	3122.6	0.9
|	Se	82	Se	**0.017**	ug/L	1033.5	88.890	90.6	24.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1185897.5	0.2
⌈	Sr	88	Sr	**0.003**	ug/L	46.9	198.650	231.4	8.1
|	Mo	95	Mo	**0.054**	ug/L	16.3	26.667	150.0	14.6
|	Ag	107	Ag	**0.004**	ug/L	98.8	32.222	54.4	39.8
|	Cd	114	Cd	**0.004**	ug/L	111.7	42.204	55.8	28.0
|	Sn	118	Sn	**0.184**	ug/L	14.4	207.779	943.4	11.3
|	Sb	121	Sb	**0.043**	ug/L	6.0	58.889	281.1	6.0
|	Ba	137	Ba	**0.003**	ug/L	144.1	64.445	70.0	12.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1069816.8	1.2
⌈	Tl	203	Tl	**0.158**	ug/L	11.2	48.889	857.8	10.3
|	Pb	208	Pb	**0.000**	ug/L	1206.6	2197.844	2129.0	3.6
|	U	238	U	**0.022**	ug/L	34.7	13.333	418.9	33.2
| >	Lu	175	Lu		ug/L		1052907.074	1016509.7	0.8
⌊	Hg	200	Hg	**0.038**	ug/L	40.3	21.111	66.7	27.8

Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 19, 2011 11:03:33
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.018

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.416
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.100
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.506
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.348
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		96.543
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: MB

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 11:06:44
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\MB.019

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.005**	ug/L	56.1	7.778	11.1	17.3
⌊>	Li	6	Li		ug/L		191344.413	194985.1	1.4
⌈	Al	27	Al	**0.720**	ug/L	6.3	12660.058	15930.0	1.4
|	Na	23	Na	**-1.005**	ug/L	3.2	33003.642	26884.2	0.3
|	Mg	24	Mg	**0.044**	ug/L	108.1	1654.541	1787.9	9.7
|	P	31	P	**-0.195**	ug/L	441.5	5192.057	5046.4	6.1
|	K	39	K	**2.456**	ug/L	39.2	483115.804	492630.2	0.6
|	Ca	44	Ca	**-4.754**	ug/L	31.0	10060.209	8807.2	3.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1390923.7	0.8
⌈	Fe	54	Fe	**1.260**	ug/L	8.8	20353.921	20906.5	1.4
|	Ti	47	Ti	**-0.187**	ug/L	29.0	397.783	250.0	16.2
|	V	51	V	**-0.024**	ug/L	320.6	2008.119	1794.4	36.5
|	Cr	52	Cr	**0.019**	ug/L	83.6	5263.192	5356.6	1.4
|	Mn	55	Mn	**-0.086**	ug/L	17.9	3160.350	2192.4	6.5
|	Co	59	Co	**0.010**	ug/L	39.2	183.335	257.8	11.3
|	Ni	60	Ni	**0.016**	ug/L	68.4	111.112	134.4	11.5
|	Cu	65	Cu	**-0.030**	ug/L	33.2	113.334	63.3	26.3
|	Zn	68	Zn	**0.383**	ug/L	18.5	536.177	866.1	7.6
|	As	75	As	**0.135**	ug/L	69.7	3114.424	3271.0	4.4
|	Se	82	Se	**0.047**	ug/L	273.9	88.890	93.9	16.1
⌊>	Ge	74	Ge		ug/L		1191781.780	1182613.6	1.2
⌈	Sr	88	Sr	**0.002**	ug/L	17.7	198.650	222.6	1.2
|	Mo	95	Mo	**0.018**	ug/L	27.8	26.667	68.9	17.0
|	Ag	107	Ag	**0.006**	ug/L	12.7	32.222	64.4	6.0
|	Cd	114	Cd	**-0.004**	ug/L	109.7	42.204	30.3	42.9
|	Sn	118	Sn	**0.110**	ug/L	16.6	207.779	652.2	10.7
|	Sb	121	Sb	**0.027**	ug/L	8.1	58.889	197.8	5.1
|	Ba	137	Ba	**-0.005**	ug/L	53.9	64.445	54.4	9.4
⌊>	Rh	103	Rh		ug/L		1076837.936	1079225.0	0.7
⌈	Tl	203	Tl	**0.073**	ug/L	8.8	48.889	416.7	7.6
|	Pb	208	Pb	**0.007**	ug/L	61.4	2197.844	2223.4	2.7
|	U	238	U	**0.009**	ug/L	23.9	13.333	178.9	23.1
| >	Lu	175	Lu		ug/L		1052907.074	1010312.9	0.9
⌊	Hg	200	Hg	**0.016**	ug/L	56.4	21.111	38.9	26.2

Sample ID: MB

Sample Date/Time: Wednesday, October 19, 2011 11:06:44
Dataset File: C:\elandata\DataSet\101811AM\MB.019

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		101.903
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.355
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.231
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.222
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		95.955
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29144-h-1-a SD

Sample Description: 5X
Sample Date/Time: Wednesday, October 19, 2011 11:09:53
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-a SD.020

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.005**	ug/L	166.6	7.778	11.1	45.8
⌊>	Li	6	Li		ug/L		191344.413	201042.2	3.0
⌈	Al	27	Al	**10.969**	ug/L	2.5	12660.058	68003.7	0.9
|	Na	23	Na	**42091.530**	ug/L	3.0	33003.642	242635148.3	2.1
|	Mg	24	Mg	**3352.898**	ug/L	0.9	1654.541	12620194.8	0.9
|	P	31	P	**85.690**	ug/L	2.9	5192.057	33350.0	1.6
|	K	39	K	**12635.350**	ug/L	1.8	483115.804	94026328.3	1.3
|	Ca	44	Ca	**11528.324**	ug/L	1.2	10060.209	2746202.6	0.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1445155.5	1.4
⌈	Fe	54	Fe	**25.847**	ug/L	2.3	20353.921	35992.5	0.5
|	Ti	47	Ti	**0.990**	ug/L	5.3	397.783	1202.3	2.7
|	V	51	V	**2.396**	ug/L	7.2	2008.119	22745.1	7.1
|	Cr	52	Cr	**0.079**	ug/L	23.4	5263.192	5977.9	1.3
|	Mn	55	Mn	**0.500**	ug/L	1.8	3160.350	8938.4	2.0
|	Co	59	Co	**0.064**	ug/L	11.9	183.335	678.9	8.3
|	Ni	60	Ni	**0.667**	ug/L	8.6	111.112	1168.9	8.6
|	Cu	65	Cu	**0.314**	ug/L	2.6	113.334	658.9	1.8
|	Zn	68	Zn	**3.000**	ug/L	2.1	536.177	3260.7	2.7
|	As	75	As	**0.401**	ug/L	34.0	3114.424	3757.1	5.8
|	Se	82	Se	**0.167**	ug/L	89.0	88.890	112.8	17.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1225473.4	0.9
⌈	Sr	88	Sr	**62.786**	ug/L	0.9	198.650	841293.5	0.5
|	Mo	95	Mo	**0.467**	ug/L	4.8	26.667	1106.7	4.5
|	Ag	107	Ag	**0.001**	ug/L	406.0	32.222	36.7	50.6
|	Cd	114	Cd	**-0.002**	ug/L	135.3	42.204	36.7	18.3
|	Sn	118	Sn	**0.165**	ug/L	7.1	207.779	870.0	6.0
|	Sb	121	Sb	**0.083**	ug/L	4.2	58.889	491.1	4.9
|	Ba	137	Ba	**8.746**	ug/L	0.2	64.445	18490.8	1.3
⌊>	Rh	103	Rh		ug/L		1076837.936	1073123.9	1.3
⌈	Tl	203	Tl	**0.040**	ug/L	17.1	48.889	261.1	13.0
|	Pb	208	Pb	**0.012**	ug/L	15.9	2197.844	2379.0	0.2
|	U	238	U	**0.365**	ug/L	0.5	13.333	6930.6	1.4
| >	Lu	175	Lu		ug/L		1052907.074	1044322.4	1.3
⌊	Hg	200	Hg	**0.003**	ug/L	194.9	21.111	24.4	28.4

Sample ID: 580-29144-h-1-a SD

Sample Date/Time: Wednesday, October 19, 2011 11:09:53
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-a SD.020

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		105.068
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.190
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		102.827
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.655
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		99.185
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29144-h-1-a

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 11:13:03
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-a .021

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.001**	ug/L	208.7	7.778	8.9	21.7
⌊>	Li	6	Li		ug/L		191344.413	196193.7	1.1
⌈	Al	27	Al	**30.151**	ug/L	1.3	12660.058	163520.7	1.8
|	Na	23	Na	**S**	ug/L	S	33003.642	S	S
|	Mg	24	Mg	**16331.833**	ug/L	2.7	1654.541	61147727.9	0.7
|	P	31	P	**402.162**	ug/L	1.6	5192.057	136272.6	2.0
|	K	39	K	**60219.896**	ug/L	3.3	483115.804	443958278.6	1.5
|	Ca	44	Ca	**55389.065**	ug/L	2.5	10060.209	13088097.3	0.8
⌊>	Sc	45	Sc		ug/L		1414190.814	1438102.1	2.0
⌈	Fe	54	Fe	**126.404**	ug/L	1.7	20353.921	89264.8	1.3
|	Ti	47	Ti	**5.771**	ug/L	1.2	397.783	4750.8	1.1
|	V	51	V	**11.245**	ug/L	2.2	2008.119	93525.2	2.1
|	Cr	52	Cr	**0.511**	ug/L	3.9	5263.192	8553.7	1.6
|	Mn	55	Mn	**1.724**	ug/L	2.4	3160.350	21578.5	2.1
|	Co	59	Co	**0.266**	ug/L	0.5	183.335	2093.5	0.4
|	Ni	60	Ni	**3.069**	ug/L	3.9	111.112	4681.9	3.8
|	Cu	65	Cu	**1.309**	ug/L	3.8	113.334	2243.5	3.7
|	Zn	68	Zn	**14.188**	ug/L	1.1	536.177	12608.5	1.0
|	As	75	As	**2.115**	ug/L	9.4	3114.424	5774.4	4.4
|	Se	82	Se	**0.953**	ug/L	35.0	88.890	201.1	20.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1156318.6	0.0
⌈	Sr	88	Sr	**361.311**	ug/L	0.2	198.650	4554867.9	0.5
|	Mo	95	Mo	**2.270**	ug/L	2.7	26.667	4963.1	2.1
|	Ag	107	Ag	**0.001**	ug/L	163.5	32.222	34.4	20.1
|	Cd	114	Cd	**0.008**	ug/L	31.5	42.204	65.9	12.2
|	Sn	118	Sn	**0.383**	ug/L	6.7	207.779	1644.5	5.4
|	Sb	121	Sb	**0.329**	ug/L	2.1	58.889	1659.0	1.7
|	Ba	137	Ba	**43.821**	ug/L	1.1	64.445	86928.1	1.0
⌊>	Rh	103	Rh		ug/L		1076837.936	1009749.5	0.6
⌈	Tl	203	Tl	**0.027**	ug/L	16.5	48.889	180.0	13.4
|	Pb	208	Pb	**0.081**	ug/L	5.3	2197.844	3383.5	1.1
|	U	238	U	**1.764**	ug/L	0.2	13.333	31788.7	1.1
| >	Lu	175	Lu		ug/L		1052907.074	992542.8	1.1
⌊	Hg	200	Hg	**0.018**	ug/L	67.4	21.111	41.1	33.8

Sample ID: 580-29144-h-1-a

Sample Date/Time: Wednesday, October 19, 2011 11:13:03
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-a .021

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.534
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		101.691
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		97.024
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		93.770
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		94.267
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29144-h-1-b du

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 11:16:14
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-b du .022

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.007**	ug/L	179.9	7.778	12.2	63.0
⌊>	Li	6	Li		ug/L		191344.413	196003.9	2.7
⌈	Al	27	Al	**46.419**	ug/L	2.4	12660.058	243663.1	1.8
|	Na	23	Na	**S**	ug/L	S	33003.642	S	S
|	Mg	24	Mg	**16218.788**	ug/L	1.6	1654.541	60479313.0	3.3
|	P	31	P	**407.457**	ug/L	0.6	5192.057	137368.5	1.4
|	K	39	K	**60692.688**	ug/L	2.8	483115.804	445426167.0	0.8
|	Ca	44	Ca	**55543.943**	ug/L	1.6	10060.209	13066392.9	0.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1431547.8	2.0
⌈	Fe	54	Fe	**128.257**	ug/L	1.0	20353.921	90240.3	1.5
|	Ti	47	Ti	**5.675**	ug/L	1.4	397.783	4675.2	1.4
|	V	51	V	**11.504**	ug/L	1.6	2008.119	95576.7	1.1
|	Cr	52	Cr	**0.527**	ug/L	6.6	5263.192	8656.0	2.8
|	Mn	55	Mn	**1.664**	ug/L	1.8	3160.350	20924.2	1.1
|	Co	59	Co	**0.265**	ug/L	2.2	183.335	2083.5	2.1
|	Ni	60	Ni	**2.998**	ug/L	1.4	111.112	4573.0	1.1
|	Cu	65	Cu	**1.342**	ug/L	2.5	113.334	2296.9	1.9
|	Zn	68	Zn	**14.534**	ug/L	1.9	536.177	12896.1	1.6
|	As	75	As	**2.272**	ug/L	9.0	3114.424	5974.9	4.3
|	Se	82	Se	**1.052**	ug/L	19.7	88.890	212.8	11.3
⌊>	Ge	74	Ge		ug/L		1191781.780	1155718.3	0.8
⌈	Sr	88	Sr	**355.254**	ug/L	0.7	198.650	4481820.2	0.5
|	Mo	95	Mo	**2.327**	ug/L	1.5	26.667	5090.9	1.6
|	Ag	107	Ag	**0.003**	ug/L	87.7	32.222	45.6	29.6
|	Cd	114	Cd	**0.003**	ug/L	151.6	42.204	50.5	32.9
|	Sn	118	Sn	**0.359**	ug/L	5.8	207.779	1554.5	5.0
|	Sb	121	Sb	**0.314**	ug/L	6.2	58.889	1584.5	5.7
|	Ba	137	Ba	**42.651**	ug/L	1.2	64.445	84672.4	1.3
⌊>	Rh	103	Rh		ug/L		1076837.936	1010499.2	0.2
⌈	Tl	203	Tl	**0.027**	ug/L	25.5	48.889	183.3	19.0
|	Pb	208	Pb	**0.075**	ug/L	9.1	2197.844	3291.3	3.6
|	U	238	U	**1.760**	ug/L	0.8	13.333	31691.8	0.6
| >	Lu	175	Lu		ug/L		1052907.074	991804.2	1.2
⌊	Hg	200	Hg	**0.008**	ug/L	129.7	21.111	28.9	40.5

Sample ID: 580-29144-h-1-b du

Sample Date/Time: Wednesday, October 19, 2011 11:16:14
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-b du .022

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.435
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		101.227
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		96.974
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		93.839
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		94.197
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29144-h-1-c ms

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 11:19:25
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-c ms .023

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**95.640**	ug/L	0.5	7.778	58776.2	0.9
⌊>	Li	6	Li		ug/L		191344.413	194967.1	1.2
⌈	Al	27	Al	**898.526**	ug/L	1.3	12660.058	4633549.5	0.6
|	Na	23	Na	**S**	ug/L	S	33003.642	S	S
|	Mg	24	Mg	**24329.638**	ug/L	1.4	1654.541	93772556.6	0.9
|	P	31	P	**9614.703**	ug/L	3.4	5192.057	3227588.9	1.5
|	K	39	K	**66538.291**	ug/L	1.5	483115.804	504938155.0	0.4
|	Ca	44	Ca	**62219.048**	ug/L	0.8	10060.209	15133762.5	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1480125.5	1.8
⌈	Fe	54	Fe	**9765.252**	ug/L	1.6	20353.921	5386502.0	1.0
|	Ti	47	Ti	**102.180**	ug/L	1.6	397.783	77613.6	1.1
|	V	51	V	**108.222**	ug/L	1.1	2008.119	882826.2	2.1
|	Cr	52	Cr	**95.658**	ug/L	0.5	5263.192	650179.6	1.0
|	Mn	55	Mn	**98.274**	ug/L	0.5	3160.350	1057585.6	1.3
|	Co	59	Co	**96.354**	ug/L	1.3	183.335	692992.0	0.7
|	Ni	60	Ni	**96.725**	ug/L	1.9	111.112	144191.0	2.4
|	Cu	65	Cu	**95.127**	ug/L	0.9	113.334	155100.9	1.5
|	Zn	68	Zn	**107.517**	ug/L	0.6	536.177	92064.6	0.4
|	As	75	As	**102.479**	ug/L	0.6	3114.424	136303.9	0.7
|	Se	82	Se	**99.450**	ug/L	1.9	88.890	12058.5	1.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1155620.0	1.0
⌈	Sr	88	Sr	**459.283**	ug/L	1.8	198.650	5825198.6	2.2
|	Mo	95	Mo	**103.864**	ug/L	0.8	26.667	227362.8	0.7
|	Ag	107	Ag	**93.770**	ug/L	2.4	32.222	506841.3	1.6
|	Cd	114	Cd	**99.429**	ug/L	0.7	42.204	312675.0	0.7
|	Sn	118	Sn	**99.999**	ug/L	2.1	207.779	380934.5	0.8
|	Sb	121	Sb	**102.133**	ug/L	0.7	58.889	500935.0	0.7
|	Ba	137	Ba	**140.535**	ug/L	1.0	64.445	280329.4	0.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1015906.3	1.2
⌈	Tl	203	Tl	**93.245**	ug/L	1.7	48.889	471423.2	2.1
|	Pb	208	Pb	**93.336**	ug/L	0.5	2197.844	1530159.6	0.8
|	U	238	U	**93.033**	ug/L	1.7	13.333	1691222.4	1.5
| >	Lu	175	Lu		ug/L		1052907.074	1001423.8	0.4
⌊	Hg	200	Hg	**0.008**	ug/L	89.7	21.111	30.0	29.4

Sample ID: 580-29144-h-1-c ms

Sample Date/Time: Wednesday, October 19, 2011 11:19:25

Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-c ms .023

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		101.893
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.662
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		96.966
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		94.342
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		95.110
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29144-h-1-d msd

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 11:22:37
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-d msd .024

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**96.240**	ug/L	2.2	7.778	59671.1	2.2
⌊>	Li	6	Li		ug/L		191344.413	196700.6	0.9
⌈	Al	27	Al	**921.583**	ug/L	3.1	12660.058	4756967.0	2.3
|	Na	23	Na	**S**	ug/L	S	33003.642	S	S
|	Mg	24	Mg	**24794.363**	ug/L	1.2	1654.541	95674770.1	1.2
|	P	31	P	**9652.048**	ug/L	0.8	5192.057	3244653.2	0.3
|	K	39	K	**67703.190**	ug/L	1.9	483115.804	514390232.5	2.0
|	Ca	44	Ca	**63499.924**	ug/L	2.1	10060.209	15460867.0	1.3
⌊>	Sc	45	Sc		ug/L		1414190.814	1481659.2	0.9
⌈	Fe	54	Fe	**9973.166**	ug/L	0.3	20353.921	5494818.3	0.7
|	Ti	47	Ti	**105.878**	ug/L	0.5	397.783	80319.6	0.4
|	V	51	V	**111.870**	ug/L	0.9	2008.119	911365.9	0.7
|	Cr	52	Cr	**97.996**	ug/L	0.8	5263.192	665202.7	1.5
|	Mn	55	Mn	**100.799**	ug/L	0.6	3160.350	1083380.7	0.4
|	Co	59	Co	**97.990**	ug/L	1.4	183.335	704039.6	2.1
|	Ni	60	Ni	**98.775**	ug/L	0.4	111.112	147069.9	1.1
|	Cu	65	Cu	**96.088**	ug/L	0.3	113.334	156483.5	1.0
|	Zn	68	Zn	**108.355**	ug/L	1.2	536.177	92670.8	0.9
|	As	75	As	**104.985**	ug/L	1.2	3114.424	139411.6	1.8
|	Se	82	Se	**101.060**	ug/L	1.1	88.890	12239.3	1.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1154280.9	0.7
⌈	Sr	88	Sr	**476.307**	ug/L	2.3	198.650	5978897.2	0.8
|	Mo	95	Mo	**107.093**	ug/L	1.9	26.667	232037.1	0.4
|	Ag	107	Ag	**96.176**	ug/L	0.8	32.222	514650.1	0.9
|	Cd	114	Cd	**100.401**	ug/L	2.4	42.204	312503.3	1.4
|	Sn	118	Sn	**100.756**	ug/L	2.0	207.779	379938.5	0.7
|	Sb	121	Sb	**103.131**	ug/L	2.5	58.889	500631.6	1.0
|	Ba	137	Ba	**143.515**	ug/L	1.5	64.445	283368.4	0.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1005675.6	1.6
⌈	Tl	203	Tl	**95.924**	ug/L	1.2	48.889	480252.5	0.5
|	Pb	208	Pb	**94.401**	ug/L	1.6	2197.844	1532554.2	0.6
|	U	238	U	**95.380**	ug/L	2.8	13.333	1716921.5	1.7
| >	Lu	175	Lu		ug/L		1052907.074	991850.6	1.6
⌊	Hg	200	Hg	**0.007**	ug/L	91.3	21.111	27.8	25.0

Sample ID: 580-29144-h-1-d msd

Sample Date/Time: Wednesday, October 19, 2011 11:22:37
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-d msd .024

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.799
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.771
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		96.853
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		93.392
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		94.201
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29144-h-1-a PDS

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 11:25:44
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-a PDS.025

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**94.466**	ug/L	2.4	7.778	59687.8	2.2
⌊>	Li	6	Li		ug/L		191344.413	200460.1	1.1
⌈	Al	27	Al	**915.621**	ug/L	0.8	12660.058	4728501.8	2.1
|	Na	23	Na	**S**	ug/L	S	33003.642	S	S
|	Mg	24	Mg	**24847.163**	ug/L	1.1	1654.541	95911741.8	2.4
|	P	31	P	**9727.929**	ug/L	1.6	5192.057	3270762.7	1.4
|	K	39	K	**68024.131**	ug/L	1.3	483115.804	516988886.6	2.4
|	Ca	44	Ca	**63413.059**	ug/L	1.7	10060.209	15443734.4	1.5
⌊>	Sc	45	Sc		ug/L		1414190.814	1481992.9	1.3
⌈	Fe	54	Fe	**10027.208**	ug/L	1.5	20353.921	5359658.4	2.9
|	Ti	47	Ti	**106.642**	ug/L	3.5	397.783	78440.3	1.1
|	V	51	V	**113.775**	ug/L	3.9	2008.119	898633.1	1.4
|	Cr	52	Cr	**100.744**	ug/L	2.8	5263.192	663141.8	2.7
|	Mn	55	Mn	**99.878**	ug/L	2.2	3160.350	1041322.5	2.3
|	Co	59	Co	**98.544**	ug/L	2.3	183.335	686694.2	2.2
|	Ni	60	Ni	**98.976**	ug/L	1.7	111.112	142962.1	2.7
|	Cu	65	Cu	**95.829**	ug/L	1.4	113.334	151405.2	2.9
|	Zn	68	Zn	**108.913**	ug/L	0.3	536.177	90406.0	4.2
|	As	75	As	**103.219**	ug/L	1.3	3114.424	133074.2	4.4
|	Se	82	Se	**99.940**	ug/L	3.9	88.890	11761.1	8.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1120283.0	4.2
⌈	Sr	88	Sr	**469.335**	ug/L	0.4	198.650	5730068.2	6.9
|	Mo	95	Mo	**105.753**	ug/L	1.3	26.667	222770.1	6.2
|	Ag	107	Ag	**94.219**	ug/L	1.0	32.222	490179.9	6.4
|	Cd	114	Cd	**99.490**	ug/L	1.1	42.204	301069.2	6.2
|	Sn	118	Sn	**99.206**	ug/L	2.2	207.779	363520.5	5.2
|	Sb	121	Sb	**102.899**	ug/L	2.5	58.889	485329.4	4.8
|	Ba	137	Ba	**140.619**	ug/L	1.2	64.445	270105.7	7.6
⌊>	Rh	103	Rh		ug/L		1076837.936	978039.5	7.2
⌈	Tl	203	Tl	**95.779**	ug/L	2.4	48.889	457905.5	5.0
|	Pb	208	Pb	**96.122**	ug/L	1.2	2197.844	1491537.7	6.9
|	U	238	U	**97.517**	ug/L	1.3	13.333	1677568.3	6.3
| >	Lu	175	Lu		ug/L		1052907.074	948086.1	7.2
⌊	Hg	200	Hg	**0.012**	ug/L	47.7	21.111	32.2	11.9

Sample ID: 580-29144-h-1-a PDS

Sample Date/Time: Wednesday, October 19, 2011 11:25:44
Dataset File: C:\elandata\DataSet\101811AM\580-29144-h-1-a PDS.025

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		104.764
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.794
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		94.001
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		90.825
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		90.045
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCS

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 11:28:48
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\LCS.026

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**102.056**	ug/L	3.4	7.778	67826.2	0.7
⌊>	Li	6	Li		ug/L		191344.413	210977.4	3.0
⌈	Al	27	Al	**991.299**	ug/L	0.3	12660.058	5052321.9	0.9
|	Na	23	Na	**10384.251**	ug/L	0.4	33003.642	60637973.7	0.8
|	Mg	24	Mg	**10199.507**	ug/L	0.8	1654.541	38863367.7	0.9
|	P	31	P	**10743.758**	ug/L	2.1	5192.057	3565860.6	2.5
|	K	39	K	**10479.398**	ug/L	2.0	483115.804	79032796.6	1.3
|	Ca	44	Ca	**10374.564**	ug/L	1.4	10060.209	2503131.7	1.5
⌊>	Sc	45	Sc		ug/L		1414190.814	1463046.6	1.2
⌈	Fe	54	Fe	**9983.583**	ug/L	2.2	20353.921	5925884.1	1.7
|	Ti	47	Ti	**101.083**	ug/L	2.1	397.783	82632.8	1.7
|	V	51	V	**100.147**	ug/L	1.9	2008.119	879155.2	0.7
|	Cr	52	Cr	**99.918**	ug/L	2.3	5263.192	730534.4	1.4
|	Mn	55	Mn	**101.269**	ug/L	1.4	3160.350	1172630.5	0.5
|	Co	59	Co	**101.246**	ug/L	2.0	183.335	783650.6	1.7
|	Ni	60	Ni	**101.526**	ug/L	2.8	111.112	162836.3	1.9
|	Cu	65	Cu	**100.873**	ug/L	1.3	113.334	176975.0	0.7
|	Zn	68	Zn	**104.797**	ug/L	1.2	536.177	96598.8	2.2
|	As	75	As	**104.065**	ug/L	1.7	3114.424	148897.5	0.9
|	Se	82	Se	**108.761**	ug/L	1.4	88.890	14183.8	0.3
⌊>	Ge	74	Ge		ug/L		1191781.780	1243683.3	1.3
⌈	Sr	88	Sr	**101.685**	ug/L	1.0	198.650	1404834.7	0.3
|	Mo	95	Mo	**100.820**	ug/L	0.3	26.667	240399.3	0.9
|	Ag	107	Ag	**100.244**	ug/L	0.7	32.222	590240.2	0.6
|	Cd	114	Cd	**103.909**	ug/L	1.9	42.204	355886.7	1.1
|	Sn	118	Sn	**99.795**	ug/L	2.7	207.779	414069.7	1.8
|	Sb	121	Sb	**103.663**	ug/L	1.6	58.889	553764.9	0.8
|	Ba	137	Ba	**101.559**	ug/L	0.5	64.445	220688.4	1.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1106526.0	0.9
⌈	Tl	203	Tl	**101.441**	ug/L	1.6	48.889	549599.8	0.9
|	Pb	208	Pb	**102.046**	ug/L	2.7	2197.844	1792495.1	1.7
|	U	238	U	**98.373**	ug/L	1.1	13.333	1916599.8	0.7
| >	Lu	175	Lu		ug/L		1052907.074	1073323.3	1.2
⌊	Hg	200	Hg	**-0.003**	ug/L	128.7	21.111	17.8	28.6

Sample ID: LCS

Sample Date/Time: Wednesday, October 19, 2011 11:28:48
Dataset File: C:\elandata\DataSet\101811AM\LCS.026

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		110.261
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.455
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		104.355
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		102.757
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.939
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCSD

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 11:31:52
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\LCSD.027

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**99.861**	ug/L	1.2	7.778	66812.5	0.7
⌊>	Li	6	Li		ug/L		191344.413	212276.9	1.6
⌈	Al	27	Al	**985.988**	ug/L	1.8	12660.058	5045220.9	2.1
|	Na	23	Na	**10123.326**	ug/L	1.6	33003.642	59346904.8	1.5
|	Mg	24	Mg	**9991.356**	ug/L	2.0	1654.541	38224574.3	2.7
|	P	31	P	**10522.764**	ug/L	1.3	5192.057	3506292.4	1.6
|	K	39	K	**10282.912**	ug/L	0.7	483115.804	77876746.7	1.5
|	Ca	44	Ca	**10365.731**	ug/L	0.7	10060.209	2510894.6	0.9
⌊>	Sc	45	Sc		ug/L		1414190.814	1468778.3	0.8
⌈	Fe	54	Fe	**10145.539**	ug/L	0.6	20353.921	5960013.2	1.4
|	Ti	47	Ti	**102.346**	ug/L	0.7	397.783	82800.4	1.1
|	V	51	V	**98.197**	ug/L	1.1	2008.119	853335.3	2.1
|	Cr	52	Cr	**99.734**	ug/L	0.9	5263.192	721747.4	1.4
|	Mn	55	Mn	**101.377**	ug/L	1.2	3160.350	1161829.5	1.6
|	Co	59	Co	**100.952**	ug/L	0.9	183.335	773289.0	0.4
|	Ni	60	Ni	**102.860**	ug/L	0.3	111.112	163292.4	0.9
|	Cu	65	Cu	**101.006**	ug/L	0.8	113.334	175377.7	0.5
|	Zn	68	Zn	**105.509**	ug/L	0.8	536.177	96232.3	0.8
|	As	75	As	**104.838**	ug/L	1.2	3114.424	148427.1	0.1
|	Se	82	Se	**108.287**	ug/L	2.5	88.890	13975.3	1.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1230786.9	1.1
⌈	Sr	88	Sr	**102.868**	ug/L	0.6	198.650	1405008.3	0.4
|	Mo	95	Mo	**101.563**	ug/L	1.0	26.667	239399.3	0.1
|	Ag	107	Ag	**102.055**	ug/L	2.1	32.222	594015.5	1.4
|	Cd	114	Cd	**104.427**	ug/L	1.4	42.204	353625.0	1.7
|	Sn	118	Sn	**99.989**	ug/L	0.7	207.779	410196.9	0.2
|	Sb	121	Sb	**103.719**	ug/L	0.2	58.889	547812.1	1.0
|	Ba	137	Ba	**100.984**	ug/L	1.3	64.445	216924.6	0.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1093921.8	0.9
⌈	Tl	203	Tl	**100.586**	ug/L	3.6	48.889	540879.1	2.6
|	Pb	208	Pb	**102.797**	ug/L	1.3	2197.844	1792536.0	0.5
|	U	238	U	**99.842**	ug/L	1.1	13.333	1930854.9	0.1
| >	Lu	175	Lu		ug/L		1052907.074	1065402.3	1.0
⌊	Hg	200	Hg	**0.002**	ug/L	285.1	21.111	23.3	24.7

Sample ID: LCSD

Sample Date/Time: Wednesday, October 19, 2011 11:31:52
Dataset File: C:\elandata\DataSet\101811AM\LCSD.027

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		110.940
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.860
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.273
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.586
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.187
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 11:34:59
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.028

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**48.840**	ug/L	0.4	7.778	30842.2	2.5
⌊>	Li	6	Li		ug/L		191344.413	200305.0	2.4
⌈	Al	27	Al	**493.562**	ug/L	2.3	12660.058	2342416.0	0.7
|	Na	23	Na	**5088.810**	ug/L	1.4	33003.642	27619333.5	1.3
|	Mg	24	Mg	**5080.930**	ug/L	2.1	1654.541	17982807.6	1.1
|	P	31	P	**4844.228**	ug/L	0.9	5192.057	1496189.5	0.9
|	K	39	K	**5132.506**	ug/L	1.2	483115.804	36195652.0	0.7
|	Ca	44	Ca	**4741.457**	ug/L	1.0	10060.209	1067924.7	0.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1359130.0	1.7
⌈	Fe	54	Fe	**5017.122**	ug/L	1.4	20353.921	2781025.5	0.7
|	Ti	47	Ti	**49.236**	ug/L	0.2	397.783	37655.1	0.9
|	V	51	V	**50.439**	ug/L	0.5	2008.119	413049.8	0.9
|	Cr	52	Cr	**50.626**	ug/L	1.2	5263.192	346991.7	1.2
|	Mn	55	Mn	**50.419**	ug/L	1.3	3160.350	544814.6	0.6
|	Co	59	Co	**50.389**	ug/L	1.8	183.335	363004.6	1.2
|	Ni	60	Ni	**50.444**	ug/L	0.8	111.112	75351.5	0.2
|	Cu	65	Cu	**49.711**	ug/L	1.7	113.334	81215.8	1.5
|	Zn	68	Zn	**49.864**	ug/L	1.6	536.177	43037.7	1.3
|	As	75	As	**50.595**	ug/L	0.4	3114.424	68921.9	0.4
|	Se	82	Se	**51.079**	ug/L	1.1	88.890	6245.3	1.8
⌊>	Ge	74	Ge		ug/L		1191781.780	1157269.3	0.8
⌈	Sr	88	Sr	**51.024**	ug/L	1.1	198.650	656504.3	0.9
|	Mo	95	Mo	**49.407**	ug/L	0.6	26.667	109709.7	0.8
|	Ag	107	Ag	**50.254**	ug/L	1.2	32.222	275536.3	0.5
|	Cd	114	Cd	**49.947**	ug/L	0.9	42.204	159329.0	1.0
|	Sn	118	Sn	**50.836**	ug/L	2.6	207.779	196512.7	1.9
|	Sb	121	Sb	**49.941**	ug/L	0.5	58.889	248472.3	0.8
|	Ba	137	Ba	**49.699**	ug/L	0.7	64.445	100588.4	0.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1030351.4	0.8
⌈	Tl	203	Tl	**50.030**	ug/L	0.7	48.889	253783.3	0.6
|	Pb	208	Pb	**51.018**	ug/L	0.2	2197.844	840116.3	0.8
|	U	238	U	**51.750**	ug/L	0.3	13.333	943911.2	1.1
| >	Lu	175	Lu		ug/L		1052907.074	1004747.5	0.8
⌊	Hg	200	Hg	**2.508**	ug/L	3.9	21.111	3002.5	4.4

Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 19, 2011 11:34:59
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.028

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	97.681	
⌊>	Li	6	Li		104.683
⌈	Al	27	Al	98.712	
|	Na	23	Na	101.776	
|	Mg	24	Mg	101.619	
|	P	31	P	96.885	
|	K	39	K	102.650	
|	Ca	44	Ca	94.829	
⌊>	Sc	45	Sc		96.107
⌈	Fe	54	Fe	100.342	
|	Ti	47	Ti	98.472	
|	V	51	V	100.877	
|	Cr	52	Cr	101.252	
|	Mn	55	Mn	100.838	
|	Co	59	Co	100.778	
|	Ni	60	Ni	100.889	
|	Cu	65	Cu	99.423	
|	Zn	68	Zn	99.729	
|	As	75	As	101.190	
|	Se	82	Se	102.158	
⌊>	Ge	74	Ge		97.104
⌈	Sr	88	Sr	102.048	
|	Mo	95	Mo	98.813	
|	Ag	107	Ag	100.509	
|	Cd	114	Cd	99.895	
|	Sn	118	Sn	101.672	
|	Sb	121	Sb	99.883	
|	Ba	137	Ba	99.397	
⌊>	Rh	103	Rh		95.683
⌈	Tl	203	Tl	100.060	
|	Pb	208	Pb	102.037	
|	U	238	U	103.500	
|>	Lu	175	Lu		95.426
⌊	Hg	200	Hg	100.334	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 11:38:11
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.029

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.001**	ug/L	450.9	7.778	8.9	43.3
⌊>	Li	6	Li		ug/L		191344.413	197679.4	0.1
⌈	Al	27	Al	**0.384**	ug/L	20.0	12660.058	13883.4	2.2
|	Na	23	Na	**1.617**	ug/L	11.8	33003.642	40205.4	2.7
|	Mg	24	Mg	**0.169**	ug/L	45.7	1654.541	2174.6	12.7
|	P	31	P	**2.228**	ug/L	26.1	5192.057	5635.6	2.4
|	K	39	K	**4.531**	ug/L	15.0	483115.804	492398.9	0.1
|	Ca	44	Ca	**-4.440**	ug/L	28.5	10060.209	8615.9	2.3
⌊>	Sc	45	Sc		ug/L		1414190.814	1349748.5	1.0
⌈	Fe	54	Fe	**4.036**	ug/L	24.8	20353.921	21673.7	2.8
|	Ti	47	Ti	**-0.098**	ug/L	63.9	397.783	307.8	15.4
|	V	51	V	**0.007**	ug/L	1091.8	2008.119	1980.7	32.6
|	Cr	52	Cr	**0.027**	ug/L	116.6	5263.192	5221.0	4.4
|	Mn	55	Mn	**-0.065**	ug/L	14.6	3160.350	2333.5	4.6
|	Co	59	Co	**0.024**	ug/L	44.2	183.335	344.4	22.0
|	Ni	60	Ni	**0.037**	ug/L	15.1	111.112	161.1	4.8
|	Cu	65	Cu	**-0.012**	ug/L	154.6	113.334	88.9	34.8
|	Zn	68	Zn	**0.233**	ug/L	22.7	536.177	709.2	5.8
|	As	75	As	**0.006**	ug/L	1511.0	3114.424	2988.7	3.5
|	Se	82	Se	**0.041**	ug/L	145.8	88.890	90.0	8.1
⌊>	Ge	74	Ge		ug/L		1191781.780	1140775.6	0.5
⌈	Sr	88	Sr	**0.004**	ug/L	24.6	198.650	244.4	5.8
|	Mo	95	Mo	**0.104**	ug/L	6.5	26.667	257.8	4.9
|	Ag	107	Ag	**0.004**	ug/L	17.5	32.222	53.3	6.3
|	Cd	114	Cd	**0.002**	ug/L	331.3	42.204	45.4	35.3
|	Sn	118	Sn	**0.399**	ug/L	8.6	207.779	1746.8	6.9
|	Sb	121	Sb	**0.071**	ug/L	16.9	58.889	408.9	14.8
|	Ba	137	Ba	**-0.001**	ug/L	68.8	64.445	58.9	3.3
⌊>	Rh	103	Rh		ug/L		1076837.936	1034417.1	1.1
⌈	Tl	203	Tl	**0.319**	ug/L	12.3	48.889	1660.1	13.4
|	Pb	208	Pb	**0.003**	ug/L	152.9	2197.844	2140.1	2.4
|	U	238	U	**0.040**	ug/L	9.5	13.333	738.9	10.6
| >	Lu	175	Lu		ug/L		1052907.074	1000418.7	1.4
⌊	Hg	200	Hg	**0.007**	ug/L	227.1	21.111	28.9	69.6

Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 19, 2011 11:38:11
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.029

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.311
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		95.443
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		95.720
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		96.061
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		95.015
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: MB

Sample Description: 10X
Sample Date/Time: Wednesday, October 19, 2011 11:41:19
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\MB.030

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.009**	ug/L	102.4	7.778	13.3	43.3
⌊>	Li	6	Li		ug/L		191344.413	195673.6	2.3
⌈	Al	27	Al	**0.231**	ug/L	82.1	12660.058	13243.9	6.6
|	Na	23	Na	**1.127**	ug/L	28.2	33003.642	37783.3	3.3
|	Mg	24	Mg	**0.090**	ug/L	78.7	1654.541	1904.6	12.6
|	P	31	P	**0.035**	ug/L	1384.6	5192.057	4995.3	1.8
|	K	39	K	**3.574**	ug/L	30.7	483115.804	488722.6	0.5
|	Ca	44	Ca	**-4.824**	ug/L	17.7	10060.209	8584.8	2.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1358010.8	1.3
⌈	Fe	54	Fe	**1.919**	ug/L	86.8	20353.921	20634.3	3.1
|	Ti	47	Ti	**-0.166**	ug/L	42.3	397.783	257.8	19.4
|	V	51	V	**0.011**	ug/L	1579.9	2008.119	2011.4	70.5
|	Cr	52	Cr	**0.018**	ug/L	146.6	5263.192	5186.5	1.9
|	Mn	55	Mn	**-0.079**	ug/L	8.7	3160.350	2201.3	2.5
|	Co	59	Co	**0.017**	ug/L	8.0	183.335	296.7	3.0
|	Ni	60	Ni	**0.032**	ug/L	48.5	111.112	154.4	16.3
|	Cu	65	Cu	**-0.015**	ug/L	58.0	113.334	85.6	16.2
|	Zn	68	Zn	**0.072**	ug/L	147.9	536.177	577.8	16.6
|	As	75	As	**0.014**	ug/L	1149.8	3114.424	3014.5	5.8
|	Se	82	Se	**0.083**	ug/L	52.3	88.890	95.6	6.1
⌊>	Ge	74	Ge		ug/L		1191781.780	1147372.0	1.6
⌈	Sr	88	Sr	**0.006**	ug/L	78.0	198.650	265.7	22.3
|	Mo	95	Mo	**0.041**	ug/L	30.7	26.667	116.7	23.4
|	Ag	107	Ag	**0.006**	ug/L	48.3	32.222	65.6	26.1
|	Cd	114	Cd	**-0.003**	ug/L	173.3	42.204	29.8	62.9
|	Sn	118	Sn	**0.229**	ug/L	2.7	207.779	1084.5	1.5
|	Sb	121	Sb	**0.035**	ug/L	21.6	58.889	230.0	17.1
|	Ba	137	Ba	**0.006**	ug/L	130.2	64.445	74.4	23.0
⌊>	Rh	103	Rh		ug/L		1076837.936	1030957.4	0.8
⌈	Tl	203	Tl	**0.139**	ug/L	4.0	48.889	744.5	4.0
|	Pb	208	Pb	**0.004**	ug/L	84.0	2197.844	2140.1	3.7
|	U	238	U	**0.017**	ug/L	5.6	13.333	322.2	6.2
| >	Lu	175	Lu		ug/L		1052907.074	991869.0	1.0
⌊	Hg	200	Hg	**0.002**	ug/L	300.0	21.111	22.2	31.2

Sample ID: MB

Sample Date/Time: Wednesday, October 19, 2011 11:41:19
Dataset File: C:\elandata\DataSet\101811AM\MB.030

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.263
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		96.027
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		96.274
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		95.739
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		94.203
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-1-e SD

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 11:44:24
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-e SD.031

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.034**	ug/L	30.8	7.778	31.1	22.3
⌊>	Li	6	Li		ug/L		191344.413	208365.2	0.4
⌈	Al	27	Al	**5675.253**	ug/L	1.0	12660.058	29188173.5	0.4
|	Na	23	Na	**24.797**	ug/L	2.5	33003.642	180888.4	2.3
|	Mg	24	Mg	**1273.419**	ug/L	2.1	1654.541	4908068.2	1.2
|	P	31	P	**307.535**	ug/L	3.3	5192.057	108500.8	3.3
|	K	39	K	**443.467**	ug/L	1.8	483115.804	3866375.9	0.3
|	Ca	44	Ca	**159.474**	ug/L	2.6	10060.209	49270.4	0.9
⌊>	Sc	45	Sc		ug/L		1414190.814	1479626.8	1.3
⌈	Fe	54	Fe	**13346.493**	ug/L	2.5	20353.921	7725864.7	1.7
|	Ti	47	Ti	**123.472**	ug/L	2.0	397.783	98439.1	1.4
|	V	51	V	**17.754**	ug/L	1.9	2008.119	153828.1	1.2
|	Cr	52	Cr	**2.427**	ug/L	2.8	5263.192	22555.6	1.5
|	Mn	55	Mn	**45.478**	ug/L	1.5	3160.350	515826.8	0.8
|	Co	59	Co	**1.668**	ug/L	2.6	183.335	12782.4	2.2
|	Ni	60	Ni	**1.105**	ug/L	8.6	111.112	1842.3	8.1
|	Cu	65	Cu	**141.097**	ug/L	1.3	113.334	241601.5	0.8
|	Zn	68	Zn	**11.683**	ug/L	1.7	536.177	10996.4	1.9
|	As	75	As	**294.696**	ug/L	0.4	3114.424	405826.8	1.0
|	Se	82	Se	**0.422**	ug/L	11.6	88.890	143.9	4.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1213989.7	0.7
⌈	Sr	88	Sr	**1.656**	ug/L	1.9	198.650	23422.4	2.2
|	Mo	95	Mo	**1.164**	ug/L	5.3	26.667	2845.8	5.7
|	Ag	107	Ag	**0.203**	ug/L	2.8	32.222	1245.6	2.9
|	Cd	114	Cd	**0.020**	ug/L	7.6	42.204	114.0	4.3
|	Sn	118	Sn	**0.562**	ug/L	3.0	207.779	2584.7	3.1
|	Sb	121	Sb	**0.546**	ug/L	1.5	58.889	3023.7	1.4
|	Ba	137	Ba	**7.893**	ug/L	1.2	64.445	17470.7	0.9
⌊>	Rh	103	Rh		ug/L		1076837.936	1123210.8	0.4
⌈	Tl	203	Tl	**0.188**	ug/L	3.5	48.889	1098.9	3.9
|	Pb	208	Pb	**23.399**	ug/L	1.8	2197.844	423739.0	1.1
|	U	238	U	**0.443**	ug/L	3.3	13.333	8880.5	2.6
| >	Lu	175	Lu		ug/L		1052907.074	1101819.3	0.7
⌊	Hg	200	Hg	**0.133**	ug/L	26.5	21.111	195.6	24.1

Sample ID: 580-29110-a-1-e SD

Sample Date/Time: Wednesday, October 19, 2011 11:44:24
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-e SD.031

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		108.895
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.627
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.863
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		104.306
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		104.645
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-1-e

Sample Description: 10X
Sample Date/Time: Wednesday, October 19, 2011 11:47:30
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-e .032

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.092**	ug/L	38.0	7.778	72.2	37.6
⌊>	Li	6	Li		ug/L		191344.413	217342.5	3.9
⌈	Al	27	Al	**27916.613**	ug/L	0.5	12660.058	143063649.1	2.4
|	Na	23	Na	**114.997**	ug/L	3.3	33003.642	710623.4	1.4
|	Mg	24	Mg	**6169.733**	ug/L	1.5	1654.541	23697416.9	2.6
|	P	31	P	**1535.699**	ug/L	1.0	5192.057	518342.0	1.5
|	K	39	K	**2204.962**	ug/L	1.6	483115.804	17160993.6	2.4
|	Ca	44	Ca	**814.949**	ug/L	1.8	10060.209	207863.1	2.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1474678.5	2.0
⌈	Fe	54	Fe	**67320.792**	ug/L	0.8	20353.921	37580334.7	2.4
|	Ti	47	Ti	**630.853**	ug/L	1.1	397.783	484384.5	1.8
|	V	51	V	**88.769**	ug/L	1.1	2008.119	735259.0	1.2
|	Cr	52	Cr	**13.252**	ug/L	2.0	5263.192	95867.3	0.4
|	Mn	55	Mn	**246.722**	ug/L	1.0	3160.350	2690239.2	1.7
|	Co	59	Co	**8.273**	ug/L	0.8	183.335	60558.1	1.3
|	Ni	60	Ni	**5.542**	ug/L	2.7	111.112	8488.1	2.5
|	Cu	65	Cu	**670.325**	ug/L	1.4	113.334	1108541.9	1.0
|	Zn	68	Zn	**58.364**	ug/L	1.5	536.177	50966.8	1.6
|	As	75	As	**1460.525**	ug/L	1.3	3114.424	1931022.3	1.0
|	Se	82	Se	**2.643**	ug/L	4.6	88.890	410.6	4.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1173013.8	1.8
⌈	Sr	88	Sr	**8.413**	ug/L	0.8	198.650	114727.5	1.9
|	Mo	95	Mo	**5.849**	ug/L	0.6	26.667	13768.9	2.2
|	Ag	107	Ag	**1.005**	ug/L	4.8	32.222	5863.4	5.2
|	Cd	114	Cd	**0.123**	ug/L	9.2	42.204	458.9	9.8
|	Sn	118	Sn	**2.219**	ug/L	2.2	207.779	9279.7	0.9
|	Sb	121	Sb	**2.631**	ug/L	1.2	58.889	13906.8	0.9
|	Ba	137	Ba	**39.574**	ug/L	1.4	64.445	84787.7	2.7
⌊>	Rh	103	Rh		ug/L		1076837.936	1090398.5	1.6
⌈	Tl	203	Tl	**0.562**	ug/L	4.3	48.889	3074.8	4.0
|	Pb	208	Pb	**115.377**	ug/L	1.3	2197.844	2014198.0	0.6
|	U	238	U	**2.244**	ug/L	1.8	13.333	43475.0	3.5
| >	Lu	175	Lu		ug/L		1052907.074	1066820.3	1.7
⌊	Hg	200	Hg	**0.724**	ug/L	2.0	21.111	935.6	2.5

Sample ID: 580-29110-a-1-e

Sample Date/Time: Wednesday, October 19, 2011 11:47:30
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-e .032

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		113.587
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.277
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		98.425
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.259
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.321
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-1-f du

Sample Description: 10X
Sample Date/Time: Wednesday, October 19, 2011 11:50:37
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-f du .033

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.106**	ug/L	8.2	7.778	81.1	8.6
⌊>	Li	6	Li		ug/L		191344.413	216611.6	2.3
⌈	Al	27	Al	**28725.271**	ug/L	2.8	12660.058	147833528.9	1.9
|	Na	23	Na	**117.948**	ug/L	1.6	33003.642	731485.0	1.2
|	Mg	24	Mg	**6234.792**	ug/L	2.9	1654.541	24048286.4	1.5
|	P	31	P	**1585.469**	ug/L	3.3	5192.057	537260.8	1.9
|	K	39	K	**2244.403**	ug/L	0.8	483115.804	17537710.7	1.5
|	Ca	44	Ca	**840.476**	ug/L	0.3	10060.209	215009.4	1.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1481340.7	1.5
⌈	Fe	54	Fe	**68016.276**	ug/L	1.4	20353.921	38417210.4	0.9
|	Ti	47	Ti	**639.233**	ug/L	0.8	397.783	496680.1	0.5
|	V	51	V	**90.311**	ug/L	1.6	2008.119	756962.2	1.1
|	Cr	52	Cr	**13.277**	ug/L	1.0	5263.192	97208.5	0.5
|	Mn	55	Mn	**249.224**	ug/L	1.6	3160.350	2749883.0	1.1
|	Co	59	Co	**8.355**	ug/L	1.5	183.335	61887.1	0.8
|	Ni	60	Ni	**5.536**	ug/L	2.7	111.112	8580.4	2.1
|	Cu	65	Cu	**678.095**	ug/L	1.8	113.334	1134850.7	1.1
|	Zn	68	Zn	**59.734**	ug/L	1.6	536.177	52779.2	1.8
|	As	75	As	**1604.810**	ug/L	12.4	3114.424	2147193.3	12.5
|	Se	82	Se	**2.509**	ug/L	7.0	88.890	398.9	6.1
⌊>	Ge	74	Ge		ug/L		1191781.780	1187021.0	0.7
⌈	Sr	88	Sr	**8.409**	ug/L	4.5	198.650	115608.5	2.3
|	Mo	95	Mo	**5.786**	ug/L	2.7	26.667	13736.6	1.1
|	Ag	107	Ag	**1.057**	ug/L	4.6	32.222	6213.6	2.5
|	Cd	114	Cd	**0.124**	ug/L	8.0	42.204	465.8	5.4
|	Sn	118	Sn	**2.177**	ug/L	1.1	207.779	9186.3	1.3
|	Sb	121	Sb	**2.674**	ug/L	1.7	58.889	14254.9	1.1
|	Ba	137	Ba	**41.186**	ug/L	1.1	64.445	88996.4	1.3
⌊>	Rh	103	Rh		ug/L		1076837.936	1100017.8	2.3
⌈	Tl	203	Tl	**0.539**	ug/L	2.6	48.889	2971.4	3.7
|	Pb	208	Pb	**116.243**	ug/L	0.8	2197.844	2042912.4	1.1
|	U	238	U	**2.199**	ug/L	1.4	13.333	42882.1	2.5
| >	Lu	175	Lu		ug/L		1052907.074	1073856.8	1.2
⌊	Hg	200	Hg	**0.731**	ug/L	5.2	21.111	950.0	6.0

Sample ID: 580-29110-a-1-f du

Sample Date/Time: Wednesday, October 19, 2011 11:50:37
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-f du .033

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		113.205
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.748
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.601
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		102.153
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.990
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-1-g ms

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 11:53:45
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-g ms .034

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**1.893**	ug/L	6.5	7.778	1256.7	5.5
⌊>	Li	6	Li		ug/L		191344.413	209311.4	1.6
⌈	Al	27	Al	**6160.905**	ug/L	0.9	12660.058	31485221.1	0.4
|	Na	23	Na	**441.690**	ug/L	1.1	33003.642	2624705.2	0.5
|	Mg	24	Mg	**1740.698**	ug/L	1.4	1654.541	6666339.8	0.2
|	P	31	P	**698.877**	ug/L	2.1	5192.057	238116.0	1.2
|	K	39	K	**861.926**	ug/L	3.4	483115.804	6992596.3	2.0
|	Ca	44	Ca	**603.429**	ug/L	2.4	10060.209	156147.7	1.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1470285.4	1.2
⌈	Fe	54	Fe	**13504.332**	ug/L	1.8	20353.921	7951412.6	1.4
|	Ti	47	Ti	**206.113**	ug/L	0.7	397.783	166874.6	0.8
|	V	51	V	**38.330**	ug/L	1.8	2008.119	335407.8	1.7
|	Cr	52	Cr	**10.818**	ug/L	0.9	5263.192	83402.8	0.6
|	Mn	55	Mn	**66.451**	ug/L	2.5	3160.350	765112.4	2.1
|	Co	59	Co	**22.024**	ug/L	1.4	183.335	169399.6	1.1
|	Ni	60	Ni	**22.054**	ug/L	1.8	111.112	35215.6	1.7
|	Cu	65	Cu	**158.318**	ug/L	1.2	113.334	275723.4	1.1
|	Zn	68	Zn	**32.233**	ug/L	1.3	536.177	29881.7	1.4
|	As	75	As	**435.693**	ug/L	0.1	3114.424	608712.4	0.3
|	Se	82	Se	**79.559**	ug/L	2.4	88.890	10326.6	2.1
⌊>	Ge	74	Ge		ug/L		1191781.780	1234765.6	0.3
⌈	Sr	88	Sr	**2.105**	ug/L	1.5	198.650	30325.6	0.6
|	Mo	95	Mo	**94.314**	ug/L	0.5	26.667	232958.5	0.4
|	Ag	107	Ag	**12.022**	ug/L	1.1	32.222	73354.5	0.2
|	Cd	114	Cd	**2.142**	ug/L	0.5	42.204	7643.4	1.4
|	Sn	118	Sn	**85.331**	ug/L	1.6	207.779	366873.7	2.2
|	Sb	121	Sb	**40.957**	ug/L	0.6	58.889	226702.5	0.8
|	Ba	137	Ba	**85.424**	ug/L	0.6	64.445	192296.7	0.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1146258.7	0.9
⌈	Tl	203	Tl	**78.798**	ug/L	2.2	48.889	430398.5	2.4
|	Pb	208	Pb	**43.752**	ug/L	3.0	2197.844	775962.5	1.9
|	U	238	U	**0.482**	ug/L	2.2	13.333	9474.3	2.4
| >	Lu	175	Lu		ug/L		1052907.074	1081956.5	1.3
⌊	Hg	200	Hg	**1.024**	ug/L	7.2	21.111	1332.3	6.6

Sample ID: 580-29110-a-1-g ms

Sample Date/Time: Wednesday, October 19, 2011 11:53:45
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-g ms .034

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		109.390
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.967
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.607
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		106.447
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.759
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-1-h msd

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 11:56:52
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-h msd .035

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.056**	ug/L	2.7	7.778	1385.6	2.6
⌊>	Li	6	Li		ug/L		191344.413	212534.0	1.6
⌈	Al	27	Al	**7078.958**	ug/L	1.9	12660.058	36673852.7	1.4
|	Na	23	Na	**472.011**	ug/L	2.9	33003.642	2840744.0	1.1
|	Mg	24	Mg	**1955.412**	ug/L	3.3	1654.541	7590481.4	1.6
|	P	31	P	**769.733**	ug/L	1.8	5192.057	265414.4	3.1
|	K	39	K	**969.368**	ug/L	2.3	483115.804	7910772.7	1.8
|	Ca	44	Ca	**664.192**	ug/L	0.7	10060.209	173209.4	1.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1490690.5	1.7
⌈	Fe	54	Fe	**16494.002**	ug/L	2.1	20353.921	9713887.0	1.5
|	Ti	47	Ti	**221.198**	ug/L	1.0	397.783	179186.8	0.9
|	V	51	V	**41.339**	ug/L	0.8	2008.119	361842.6	0.6
|	Cr	52	Cr	**11.412**	ug/L	1.4	5263.192	87743.1	0.9
|	Mn	55	Mn	**77.650**	ug/L	1.2	3160.350	894164.8	0.5
|	Co	59	Co	**23.996**	ug/L	1.7	183.335	184696.5	1.8
|	Ni	60	Ni	**23.016**	ug/L	0.9	111.112	36772.8	0.4
|	Cu	65	Cu	**182.928**	ug/L	0.5	113.334	318807.1	0.8
|	Zn	68	Zn	**36.023**	ug/L	1.7	536.177	33353.1	1.5
|	As	75	As	**428.839**	ug/L	1.0	3114.424	599610.6	0.3
|	Se	82	Se	**86.467**	ug/L	0.5	88.890	11224.0	0.6
⌊>	Ge	74	Ge		ug/L		1191781.780	1235694.4	0.7
⌈	Sr	88	Sr	**2.885**	ug/L	2.5	198.650	41656.5	2.7
|	Mo	95	Mo	**102.174**	ug/L	0.5	26.667	253334.7	1.6
|	Ag	107	Ag	**12.800**	ug/L	1.4	32.222	78393.4	0.4
|	Cd	114	Cd	**2.249**	ug/L	2.3	42.204	8054.7	1.9
|	Sn	118	Sn	**92.593**	ug/L	2.5	207.779	399482.6	1.4
|	Sb	121	Sb	**43.029**	ug/L	1.5	58.889	239044.6	0.7
|	Ba	137	Ba	**91.242**	ug/L	0.6	64.445	206176.3	1.7
⌊>	Rh	103	Rh		ug/L		1076837.936	1150571.7	1.2
⌈	Tl	203	Tl	**83.527**	ug/L	3.6	48.889	460560.7	2.1
|	Pb	208	Pb	**48.696**	ug/L	2.1	2197.844	871928.2	1.0
|	U	238	U	**0.539**	ug/L	3.4	13.333	10699.6	2.1
| >	Lu	175	Lu		ug/L		1052907.074	1092613.6	1.6
⌊	Hg	200	Hg	**1.166**	ug/L	3.2	21.111	1529.0	3.2

Sample ID: 580-29110-a-1-h msd

Sample Date/Time: Wednesday, October 19, 2011 11:56:52
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-h msd .035

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		111.074
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		105.409
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.685
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		106.847
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		103.771
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-1-e PDS

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 12:00:00
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-e PDS.036

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.164**	ug/L	13.2	7.778	1455.6	11.8
⌊>	Li	6	Li		ug/L		191344.413	212433.8	2.1
⌈	Al	27	Al	**5558.316**	ug/L	0.8	12660.058	28848780.4	0.8
|	Na	23	Na	**459.149**	ug/L	2.5	33003.642	2769198.0	1.6
|	Mg	24	Mg	**1656.789**	ug/L	1.9	1654.541	6443454.4	1.0
|	P	31	P	**721.449**	ug/L	1.1	5192.057	249460.3	0.2
|	K	39	K	**885.678**	ug/L	1.7	483115.804	7283869.4	0.8
|	Ca	44	Ca	**576.281**	ug/L	1.5	10060.209	151927.0	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1493081.8	0.9
⌈	Fe	54	Fe	**13286.039**	ug/L	1.2	20353.921	7825666.8	0.7
|	Ti	47	Ti	**206.143**	ug/L	0.8	397.783	166953.3	1.2
|	V	51	V	**39.031**	ug/L	2.8	2008.119	341644.8	3.2
|	Cr	52	Cr	**11.075**	ug/L	1.4	5263.192	85286.1	1.8
|	Mn	55	Mn	**66.103**	ug/L	2.1	3160.350	761387.5	2.1
|	Co	59	Co	**24.080**	ug/L	0.2	183.335	185261.3	0.4
|	Ni	60	Ni	**23.536**	ug/L	1.4	111.112	37583.8	0.9
|	Cu	65	Cu	**148.651**	ug/L	2.0	113.334	258962.0	1.5
|	Zn	68	Zn	**33.400**	ug/L	1.2	536.177	30952.2	1.2
|	As	75	As	**377.607**	ug/L	0.7	3114.424	528162.8	1.1
|	Se	82	Se	**89.470**	ug/L	2.6	88.890	11605.4	2.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1235150.4	0.5
⌈	Sr	88	Sr	**1.669**	ug/L	2.0	198.650	24410.8	0.4
|	Mo	95	Mo	**105.543**	ug/L	2.3	26.667	264129.4	0.6
|	Ag	107	Ag	**12.891**	ug/L	3.0	32.222	79689.5	1.8
|	Cd	114	Cd	**2.212**	ug/L	2.2	42.204	7998.3	1.9
|	Sn	118	Sn	**103.444**	ug/L	3.1	207.779	450524.3	1.9
|	Sb	121	Sb	**61.615**	ug/L	4.0	58.889	345438.9	2.1
|	Ba	137	Ba	**90.447**	ug/L	2.7	64.445	206274.2	0.8
⌊>	Rh	103	Rh		ug/L		1076837.936	1161670.9	1.9
⌈	Tl	203	Tl	**84.850**	ug/L	0.9	48.889	472438.3	0.4
|	Pb	208	Pb	**44.155**	ug/L	0.9	2197.844	798458.8	0.9
|	U	238	U	**0.424**	ug/L	1.7	13.333	8502.5	2.3
| >	Lu	175	Lu		ug/L		1052907.074	1102946.9	0.6
⌊	Hg	200	Hg	**1.115**	ug/L	4.0	21.111	1477.9	4.0

Sample ID: 580-29110-a-1-e PDS

Sample Date/Time: Wednesday, October 19, 2011 12:00:00
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-1-e PDS.036

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		111.022
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		105.579
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.639
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		107.878
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		104.753
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCS

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 12:03:08
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\LCS.037

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.148**	ug/L	6.8	7.778	1387.8	5.4
⌊>	Li	6	Li		ug/L		191344.413	203892.7	1.4
⌈	Al	27	Al	**97.682**	ug/L	0.8	12660.058	506406.2	1.5
|	Na	23	Na	**442.015**	ug/L	1.0	33003.642	2597027.5	1.1
|	Mg	24	Mg	**414.735**	ug/L	2.1	1654.541	1571530.3	0.3
|	P	31	P	**420.703**	ug/L	2.2	5192.057	143842.8	1.2
|	K	39	K	**451.494**	ug/L	2.4	483115.804	3858233.1	1.0
|	Ca	44	Ca	**410.476**	ug/L	2.3	10060.209	108319.1	0.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1453761.8	1.8
⌈	Fe	54	Fe	**454.547**	ug/L	0.5	20353.921	287922.7	0.8
|	Ti	47	Ti	**80.240**	ug/L	1.7	397.783	65188.4	1.3
|	V	51	V	**21.380**	ug/L	1.7	2008.119	187937.0	1.8
|	Cr	52	Cr	**8.522**	ug/L	1.2	5263.192	66832.6	1.0
|	Mn	55	Mn	**21.999**	ug/L	0.3	3160.350	255401.7	0.1
|	Co	59	Co	**21.987**	ug/L	1.0	183.335	169063.5	1.4
|	Ni	60	Ni	**21.575**	ug/L	2.9	111.112	34442.6	3.3
|	Cu	65	Cu	**11.214**	ug/L	2.0	113.334	19631.3	1.8
|	Zn	68	Zn	**21.561**	ug/L	1.3	536.177	20163.9	1.0
|	As	75	As	**85.739**	ug/L	0.2	3114.424	122334.2	0.6
|	Se	82	Se	**84.275**	ug/L	1.2	88.890	10929.3	0.8
⌊>	Ge	74	Ge		ug/L		1191781.780	1234304.8	0.4
⌈	Sr	88	Sr	**-0.013**	ug/L	30.7	198.650	25.6	222.9
|	Mo	95	Mo	**100.670**	ug/L	0.9	26.667	248845.4	0.9
|	Ag	107	Ag	**12.819**	ug/L	1.8	32.222	78272.7	0.9
|	Cd	114	Cd	**2.215**	ug/L	5.4	42.204	7905.5	3.8
|	Sn	118	Sn	**101.276**	ug/L	0.7	207.779	435694.6	0.9
|	Sb	121	Sb	**59.881**	ug/L	1.0	58.889	331669.5	0.8
|	Ba	137	Ba	**81.038**	ug/L	1.1	64.445	182565.9	1.0
⌊>	Rh	103	Rh		ug/L		1076837.936	1147197.5	1.6
⌈	Tl	203	Tl	**85.376**	ug/L	1.4	48.889	458704.1	1.1
|	Pb	208	Pb	**21.461**	ug/L	0.4	2197.844	375615.9	0.4
|	U	238	U	**0.003**	ug/L	25.4	13.333	77.8	20.3
| >	Lu	175	Lu		ug/L		1052907.074	1064297.9	0.8
⌊	Hg	200	Hg	**0.988**	ug/L	3.8	21.111	1265.6	3.1

Sample ID: LCS

Sample Date/Time: Wednesday, October 19, 2011 12:03:08
Dataset File: C:\elandata\DataSet\101811AM\LCS.037

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		106.558
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.798
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.568
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		106.534
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.082
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCSD

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 12:06:17
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\LCSD.038

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.160**	ug/L	5.4	7.778	1341.2	4.2
⌊>	Li	6	Li		ug/L		191344.413	195930.3	1.9
⌈	Al	27	Al	**97.768**	ug/L	0.6	12660.058	486282.8	0.9
|	Na	23	Na	**446.318**	ug/L	2.9	33003.642	2515615.2	2.6
|	Mg	24	Mg	**421.470**	ug/L	1.4	1654.541	1532541.2	1.5
|	P	31	P	**415.995**	ug/L	2.4	5192.057	136541.9	2.3
|	K	39	K	**459.041**	ug/L	2.2	483115.804	3756086.7	1.5
|	Ca	44	Ca	**421.506**	ug/L	3.5	10060.209	106464.3	2.9
⌊>	Sc	45	Sc		ug/L		1414190.814	1394707.6	0.4
⌈	Fe	54	Fe	**449.351**	ug/L	0.8	20353.921	274482.9	0.6
|	Ti	47	Ti	**79.508**	ug/L	1.0	397.783	62246.4	1.2
|	V	51	V	**21.612**	ug/L	1.4	2008.119	183027.8	1.4
|	Cr	52	Cr	**8.443**	ug/L	1.4	5263.192	63846.8	1.1
|	Mn	55	Mn	**22.094**	ug/L	1.6	3160.350	247138.5	1.4
|	Co	59	Co	**22.112**	ug/L	1.0	183.335	163820.7	1.0
|	Ni	60	Ni	**22.355**	ug/L	2.6	111.112	34381.3	2.8
|	Cu	65	Cu	**11.389**	ug/L	0.8	113.334	19209.6	1.0
|	Zn	68	Zn	**21.907**	ug/L	0.9	536.177	19732.4	1.0
|	As	75	As	**85.995**	ug/L	1.3	3114.424	118213.5	1.0
|	Se	82	Se	**84.015**	ug/L	1.5	88.890	10499.0	1.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1189310.5	0.3
⌈	Sr	88	Sr	**-0.013**	ug/L	17.4	198.650	21.9	142.9
|	Mo	95	Mo	**102.587**	ug/L	0.3	26.667	241100.9	0.4
|	Ag	107	Ag	**12.819**	ug/L	0.3	32.222	74425.6	0.3
|	Cd	114	Cd	**2.301**	ug/L	2.2	42.204	7811.1	2.5
|	Sn	118	Sn	**101.075**	ug/L	1.0	207.779	413417.0	0.9
|	Sb	121	Sb	**60.347**	ug/L	1.5	58.889	317790.6	1.2
|	Ba	137	Ba	**82.820**	ug/L	2.0	64.445	177396.0	2.0
⌊>	Rh	103	Rh		ug/L		1076837.936	1090638.4	0.3
⌈	Tl	203	Tl	**85.137**	ug/L	1.1	48.889	436176.0	1.3
|	Pb	208	Pb	**22.166**	ug/L	0.7	2197.844	369872.9	1.1
|	U	238	U	**0.003**	ug/L	33.9	13.333	63.3	27.3
| >	Lu	175	Lu		ug/L		1052907.074	1014811.9	0.4
⌊	Hg	200	Hg	**1.060**	ug/L	5.4	21.111	1293.4	5.7

Sample ID: LCSD

Sample Date/Time: Wednesday, October 19, 2011 12:06:17
Dataset File: C:\elandata\DataSet\101811AM\LCSD.038

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.397
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.622
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.793
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.282
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		96.382
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCSSRM

Sample Description: 20X
Sample Date/Time: Wednesday, October 19, 2011 12:09:26
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\LCSSRM.039

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**42.743**	ug/L	0.8	7.778	28846.9	0.7
⌊>	Li	6	Li		ug/L		191344.413	214072.1	0.9
⌈	Al	27	Al	**3833.373**	ug/L	0.7	12660.058	19948086.8	1.4
|	Na	23	Na	**338.306**	ug/L	6.5	33003.642	2054626.6	6.4
|	Mg	24	Mg	**1420.805**	ug/L	2.2	1654.541	5538953.2	1.4
|	P	31	P	**253.204**	ug/L	1.0	5192.057	91328.8	1.0
|	K	39	K	**1283.967**	ug/L	1.4	483115.804	10354670.8	0.7
|	Ca	44	Ca	**3223.235**	ug/L	1.5	10060.209	802842.3	0.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1496611.3	0.8
⌈	Fe	54	Fe	**7086.486**	ug/L	1.2	20353.921	4223404.9	0.4
|	Ti	47	Ti	**86.185**	ug/L	1.9	397.783	70697.9	1.5
|	V	51	V	**57.032**	ug/L	1.3	2008.119	502985.6	2.4
|	Cr	52	Cr	**47.899**	ug/L	1.2	5263.192	353993.3	0.2
|	Mn	55	Mn	**255.323**	ug/L	0.7	3160.350	2959201.8	0.5
|	Co	59	Co	**72.354**	ug/L	0.9	183.335	561542.1	0.9
|	Ni	60	Ni	**57.743**	ug/L	2.2	111.112	92914.6	2.2
|	Cu	65	Cu	**37.274**	ug/L	1.9	113.334	65636.0	1.0
|	Zn	68	Zn	**157.176**	ug/L	0.9	536.177	144958.6	1.1
|	As	75	As	**55.932**	ug/L	1.3	3114.424	81745.6	1.2
|	Se	82	Se	**107.713**	ug/L	1.6	88.890	14084.9	1.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1246882.6	1.2
⌈	Sr	88	Sr	**57.111**	ug/L	1.0	198.650	808365.2	1.4
|	Mo	95	Mo	**45.433**	ug/L	2.0	26.667	110984.0	2.1
|	Ag	107	Ag	**25.670**	ug/L	0.5	32.222	154851.4	0.6
|	Cd	114	Cd	**55.327**	ug/L	1.7	42.204	194155.2	2.2
|	Sn	118	Sn	**68.102**	ug/L	1.3	207.779	289564.6	1.5
|	Sb	121	Sb	**105.682**	ug/L	0.8	58.889	578347.9	1.2
|	Ba	137	Ba	**156.849**	ug/L	1.6	64.445	349095.9	1.9
⌊>	Rh	103	Rh		ug/L		1076837.936	1133439.9	0.4
⌈	Tl	203	Tl	**87.915**	ug/L	2.4	48.889	479582.7	1.5
|	Pb	208	Pb	**81.970**	ug/L	0.9	2197.844	1450420.2	0.4
|	U	238	U	**0.561**	ug/L	0.4	13.333	11028.7	1.5
| >	Lu	175	Lu		ug/L		1052907.074	1080730.1	1.1
⌊	Hg	200	Hg	**7.802**	ug/L	3.1	21.111	9996.8	2.2

Sample ID: LCSSRM

Sample Date/Time: Wednesday, October 19, 2011 12:09:26
Dataset File: C:\elandata\DataSet\101811AM\LCSSRM.039

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		111.878
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		105.828
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		104.623
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		105.256
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.642
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 12:12:36
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.040

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**48.598**	ug/L	2.2	7.778	30236.4	0.8
⌊>	Li	6	Li		ug/L		191344.413	197427.7	2.7
⌈	Al	27	Al	**490.241**	ug/L	2.3	12660.058	2399694.3	2.3
|	Na	23	Na	**4955.124**	ug/L	1.9	33003.642	27730584.9	0.6
|	Mg	24	Mg	**5024.662**	ug/L	2.7	1654.541	18338587.3	2.2
|	P	31	P	**4778.858**	ug/L	2.5	5192.057	1521861.9	1.2
|	K	39	K	**5141.494**	ug/L	1.8	483115.804	37386555.4	0.6
|	Ca	44	Ca	**4681.613**	ug/L	0.3	10060.209	1087513.5	1.1
⌊>	Sc	45	Sc		ug/L		1414190.814	1401466.4	1.3
⌈	Fe	54	Fe	**5043.883**	ug/L	2.8	20353.921	2826301.8	1.9
|	Ti	47	Ti	**50.294**	ug/L	3.7	397.783	38880.7	3.9
|	V	51	V	**50.129**	ug/L	3.0	2008.119	415081.8	3.5
|	Cr	52	Cr	**50.276**	ug/L	1.1	5263.192	348412.1	0.6
|	Mn	55	Mn	**51.179**	ug/L	2.3	3160.350	559015.0	1.1
|	Co	59	Co	**50.773**	ug/L	2.1	183.335	369771.3	0.8
|	Ni	60	Ni	**50.507**	ug/L	1.1	111.112	76274.2	0.6
|	Cu	65	Cu	**49.928**	ug/L	0.7	113.334	82469.6	0.8
|	Zn	68	Zn	**49.611**	ug/L	0.3	536.177	43295.9	1.1
|	As	75	As	**51.033**	ug/L	0.9	3114.424	70256.3	0.7
|	Se	82	Se	**49.485**	ug/L	1.0	88.890	6119.1	0.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1170040.2	1.3
⌈	Sr	88	Sr	**51.090**	ug/L	1.1	198.650	668589.2	1.0
|	Mo	95	Mo	**49.607**	ug/L	1.6	26.667	112040.0	1.9
|	Ag	107	Ag	**50.230**	ug/L	1.6	32.222	280113.2	1.3
|	Cd	114	Cd	**50.131**	ug/L	1.1	42.204	162645.4	1.1
|	Sn	118	Sn	**49.546**	ug/L	0.5	207.779	194822.8	0.4
|	Sb	121	Sb	**49.833**	ug/L	0.5	58.889	252169.5	0.5
|	Ba	137	Ba	**49.301**	ug/L	0.3	64.445	101492.6	0.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1047945.9	0.3
⌈	Tl	203	Tl	**50.149**	ug/L	3.0	48.889	254525.7	1.9
|	Pb	208	Pb	**50.369**	ug/L	2.7	2197.844	829856.5	1.1
|	U	238	U	**50.558**	ug/L	2.0	13.333	922729.7	1.5
| >	Lu	175	Lu		ug/L		1052907.074	1005575.5	2.0
⌊	Hg	200	Hg	**2.490**	ug/L	2.6	21.111	2981.4	0.6

Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 19, 2011 12:12:36
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.040

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	97.196	
⌊>	Li	6	Li		103.179
⌈	Al	27	Al	98.048	
|	Na	23	Na	99.102	
|	Mg	24	Mg	100.493	
|	P	31	P	95.577	
|	K	39	K	102.830	
|	Ca	44	Ca	93.632	
⌊>	Sc	45	Sc		99.100
⌈	Fe	54	Fe	100.878	
|	Ti	47	Ti	100.588	
|	V	51	V	100.258	
|	Cr	52	Cr	100.552	
|	Mn	55	Mn	102.358	
|	Co	59	Co	101.546	
|	Ni	60	Ni	101.013	
|	Cu	65	Cu	99.857	
|	Zn	68	Zn	99.222	
|	As	75	As	102.066	
|	Se	82	Se	98.971	
⌊>	Ge	74	Ge		98.176
⌈	Sr	88	Sr	102.180	
|	Mo	95	Mo	99.213	
|	Ag	107	Ag	100.460	
|	Cd	114	Cd	100.261	
|	Sn	118	Sn	99.091	
|	Sb	121	Sb	99.667	
|	Ba	137	Ba	98.602	
⌊>	Rh	103	Rh		97.317
⌈	Tl	203	Tl	100.298	
|	Pb	208	Pb	100.739	
|	U	238	U	101.115	
| >	Lu	175	Lu		95.505
⌊	Hg	200	Hg	99.588	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 12:15:48
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.041

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.004**	ug/L	414.5	7.778	10.0	88.2
⌊>	Li	6	Li		ug/L		191344.413	194176.5	1.5
⌈	Al	27	Al	**0.354**	ug/L	30.0	12660.058	14123.6	3.0
|	Na	23	Na	**-1.387**	ug/L	9.7	33003.642	24689.1	1.3
|	Mg	24	Mg	**0.079**	ug/L	95.6	1654.541	1907.9	14.0
|	P	31	P	**0.653**	ug/L	93.4	5192.057	5297.6	3.6
|	K	39	K	**3.324**	ug/L	31.0	483115.804	497448.4	0.6
|	Ca	44	Ca	**-5.024**	ug/L	9.7	10060.209	8722.7	0.9
⌊>	Sc	45	Sc		ug/L		1414190.814	1387249.9	1.9
⌈	Fe	54	Fe	**3.987**	ug/L	45.8	20353.921	21863.6	2.9
|	Ti	47	Ti	**-0.123**	ug/L	42.1	397.783	292.2	15.1
|	V	51	V	**-0.006**	ug/L	3147.9	2008.119	1880.2	81.4
|	Cr	52	Cr	**0.027**	ug/L	32.7	5263.192	5275.4	0.9
|	Mn	55	Mn	**-0.088**	ug/L	10.2	3160.350	2112.4	5.0
|	Co	59	Co	**0.015**	ug/L	40.2	183.335	283.3	13.6
|	Ni	60	Ni	**0.011**	ug/L	131.8	111.112	123.3	17.7
|	Cu	65	Cu	**-0.010**	ug/L	47.7	113.334	93.3	7.1
|	Zn	68	Zn	**0.111**	ug/L	25.1	536.177	612.9	5.5
|	As	75	As	**-0.066**	ug/L	133.1	3114.424	2928.6	5.6
|	Se	82	Se	**0.060**	ug/L	188.2	88.890	93.3	15.9
⌊>	Ge	74	Ge		ug/L		1191781.780	1152812.7	1.7
⌈	Sr	88	Sr	**0.004**	ug/L	49.5	198.650	248.4	12.0
|	Mo	95	Mo	**0.063**	ug/L	19.6	26.667	167.8	18.5
|	Ag	107	Ag	**0.002**	ug/L	191.1	32.222	42.2	50.1
|	Cd	114	Cd	**-0.004**	ug/L	47.0	42.204	28.8	19.6
|	Sn	118	Sn	**0.349**	ug/L	6.5	207.779	1577.9	7.7
|	Sb	121	Sb	**0.072**	ug/L	10.0	58.889	424.5	10.7
|	Ba	137	Ba	**0.000**	ug/L	2814.1	64.445	63.3	19.0
⌊>	Rh	103	Rh		ug/L		1076837.936	1050040.3	2.1
⌈	Tl	203	Tl	**0.215**	ug/L	9.3	48.889	1118.9	8.3
|	Pb	208	Pb	**0.006**	ug/L	241.4	2197.844	2153.4	9.5
|	U	238	U	**0.020**	ug/L	29.0	13.333	377.8	27.8
| >	Lu	175	Lu		ug/L		1052907.074	987367.9	1.0
⌊	Hg	200	Hg	**0.049**	ug/L	21.1	21.111	76.7	15.1

Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 19, 2011 12:15:48
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.041

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		101.480
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.095
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		96.730
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		97.511
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		93.775
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-14-b

Sample Description: 10X
Sample Date/Time: Wednesday, October 19, 2011 12:18:58
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-14-b .042

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.005**	ug/L	64.4	7.778	12.2	15.7
⌊>	Li	6	Li		ug/L		191344.413	217489.6	3.1
⌈	Al	27	Al	**843.176**	ug/L	1.7	12660.058	4405623.0	0.8
|	Na	23	Na	**100.160**	ug/L	1.8	33003.642	633979.0	0.4
|	Mg	24	Mg	**86.968**	ug/L	2.8	1654.541	341282.6	1.8
|	P	31	P	**110.946**	ug/L	1.4	5192.057	43183.0	1.3
|	K	39	K	**74.992**	ug/L	2.3	483115.804	1088136.0	0.5
|	Ca	44	Ca	**129.537**	ug/L	2.3	10060.209	42560.0	1.1
⌊>	Sc	45	Sc		ug/L		1414190.814	1499388.5	1.4
⌈	Fe	54	Fe	**3958.105**	ug/L	1.2	20353.921	2357647.6	1.8
|	Ti	47	Ti	**146.977**	ug/L	1.6	397.783	119726.4	1.9
|	V	51	V	**12.857**	ug/L	1.3	2008.119	114470.9	0.8
|	Cr	52	Cr	**1.679**	ug/L	1.9	5263.192	17644.2	1.7
|	Mn	55	Mn	**19.417**	ug/L	2.1	3160.350	227057.5	2.4
|	Co	59	Co	**0.991**	ug/L	2.3	183.335	7844.4	2.5
|	Ni	60	Ni	**1.241**	ug/L	6.4	111.112	2101.3	5.8
|	Cu	65	Cu	**2.093**	ug/L	2.5	113.334	3780.5	1.7
|	Zn	68	Zn	**7.947**	ug/L	3.5	536.177	7825.7	3.2
|	As	75	As	**2.778**	ug/L	5.8	3114.424	7123.3	2.6
|	Se	82	Se	**0.066**	ug/L	127.7	88.890	101.1	11.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1241087.7	0.7
⌈	Sr	88	Sr	**2.669**	ug/L	2.2	198.650	38166.7	1.9
|	Mo	95	Mo	**0.194**	ug/L	11.7	26.667	503.3	10.9
|	Ag	107	Ag	**0.222**	ug/L	1.5	32.222	1380.1	1.3
|	Cd	114	Cd	**0.086**	ug/L	6.9	42.204	348.1	6.3
|	Sn	118	Sn	**0.450**	ug/L	2.9	207.779	2140.2	2.4
|	Sb	121	Sb	**0.184**	ug/L	10.9	58.889	1075.6	10.0
|	Ba	137	Ba	**3.852**	ug/L	1.7	64.445	8682.6	1.7
⌊>	Rh	103	Rh		ug/L		1076837.936	1139195.1	0.4
⌈	Tl	203	Tl	**0.091**	ug/L	12.0	48.889	546.7	10.2
|	Pb	208	Pb	**1.698**	ug/L	1.3	2197.844	32369.9	0.8
|	U	238	U	**0.055**	ug/L	3.0	13.333	1104.5	3.2
| >	Lu	175	Lu		ug/L		1052907.074	1084779.7	1.0
⌊	Hg	200	Hg	**0.063**	ug/L	22.5	21.111	102.2	18.0

Sample ID: 580-29110-a-14-b

Sample Date/Time: Wednesday, October 19, 2011 12:18:58
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-14-b .042

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		113.664
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		106.024
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		104.137
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		105.791
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		103.027
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-15-b

Sample Description: 10X
Sample Date/Time: Wednesday, October 19, 2011 12:22:09
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-15-b .043

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.223**	ug/L	20.9	7.778	160.0	17.8
⌊>	Li	6	Li		ug/L		191344.413	215643.9	2.6
⌈	Al	27	Al	**9312.448**	ug/L	0.3	12660.058	48093012.9	0.3
|	Na	23	Na	**69.938**	ug/L	1.3	33003.642	449246.7	1.6
|	Mg	24	Mg	**994.728**	ug/L	0.7	1654.541	3851173.4	0.9
|	P	31	P	**360.061**	ug/L	0.7	5192.057	126641.1	0.3
|	K	39	K	**250.032**	ug/L	0.6	483115.804	2410888.2	0.7
|	Ca	44	Ca	**1169.797**	ug/L	1.0	10060.209	296037.0	0.5
⌊>	Sc	45	Sc		ug/L		1414190.814	1485914.9	0.6
⌈	Fe	54	Fe	**19517.017**	ug/L	0.5	20353.921	11256150.3	0.3
|	Ti	47	Ti	**425.409**	ug/L	0.9	397.783	337193.2	0.7
|	V	51	V	**30.978**	ug/L	0.8	2008.119	266115.7	0.3
|	Cr	52	Cr	**6.108**	ug/L	1.1	5263.192	48488.8	1.0
|	Mn	55	Mn	**126.621**	ug/L	1.0	3160.350	1426297.0	1.0
|	Co	59	Co	**3.724**	ug/L	1.6	183.335	28234.5	1.2
|	Ni	60	Ni	**4.633**	ug/L	3.1	111.112	7339.7	2.4
|	Cu	65	Cu	**20.584**	ug/L	0.3	113.334	35243.4	0.9
|	Zn	68	Zn	**31.382**	ug/L	1.7	536.177	28534.5	2.3
|	As	75	As	**63.927**	ug/L	0.7	3114.424	90248.1	0.1
|	Se	82	Se	**0.931**	ug/L	17.9	88.890	207.8	10.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1210417.4	0.6
⌈	Sr	88	Sr	**7.415**	ug/L	0.8	198.650	103254.0	0.8
|	Mo	95	Mo	**2.440**	ug/L	4.7	26.667	5880.1	4.7
|	Ag	107	Ag	**0.572**	ug/L	3.7	32.222	3420.4	3.5
|	Cd	114	Cd	**0.239**	ug/L	6.4	42.204	866.4	6.1
|	Sn	118	Sn	**0.815**	ug/L	1.2	207.779	3614.9	0.9
|	Sb	121	Sb	**1.036**	ug/L	4.2	58.889	5627.8	4.2
|	Ba	137	Ba	**17.664**	ug/L	0.8	64.445	38671.2	0.9
⌊>	Rh	103	Rh		ug/L		1076837.936	1113218.6	0.2
⌈	Tl	203	Tl	**0.118**	ug/L	2.0	48.889	691.1	2.7
|	Pb	208	Pb	**31.072**	ug/L	1.4	2197.844	550365.0	0.3
|	U	238	U	**0.316**	ug/L	2.7	13.333	6204.7	3.2
| >	Lu	175	Lu		ug/L		1052907.074	1079141.2	1.3
⌊	Hg	200	Hg	**0.142**	ug/L	11.4	21.111	202.2	9.1

Sample ID: 580-29110-a-15-b

Sample Date/Time: Wednesday, October 19, 2011 12:22:09
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-15-b .043

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		112.699
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		105.072
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.564
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		103.378
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.492
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-2-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 12:25:19
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-2-b .044

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.004**	ug/L	81.8	7.778	11.1	17.3
⌊>	Li	6	Li		ug/L		191344.413	207896.8	2.3
⌈	Al	27	Al	**2422.191**	ug/L	2.8	12660.058	12490872.8	0.5
|	Na	23	Na	**13.169**	ug/L	9.6	33003.642	112437.0	5.0
|	Mg	24	Mg	**772.544**	ug/L	4.2	1654.541	2984041.1	2.0
|	P	31	P	**112.712**	ug/L	2.3	5192.057	43306.7	2.3
|	K	39	K	**246.551**	ug/L	3.8	483115.804	2378953.7	0.7
|	Ca	44	Ca	**63.834**	ug/L	2.2	10060.209	26096.0	1.3
⌊>	Sc	45	Sc		ug/L		1414190.814	1483200.8	2.3
⌈	Fe	54	Fe	**7071.323**	ug/L	0.9	20353.921	4147272.8	0.3
|	Ti	47	Ti	**67.062**	ug/L	0.6	397.783	54227.2	0.7
|	V	51	V	**9.736**	ug/L	2.3	2008.119	86191.8	1.7
|	Cr	52	Cr	**0.967**	ug/L	3.6	5263.192	12340.9	2.1
|	Mn	55	Mn	**32.443**	ug/L	2.0	3160.350	372824.7	0.9
|	Co	59	Co	**1.372**	ug/L	3.9	183.335	10662.9	2.8
|	Ni	60	Ni	**0.508**	ug/L	3.3	111.112	917.8	3.8
|	Cu	65	Cu	**56.171**	ug/L	2.7	113.334	97267.8	1.6
|	Zn	68	Zn	**5.892**	ug/L	2.2	536.177	5880.0	3.1
|	As	75	As	**165.010**	ug/L	1.4	3114.424	231054.8	0.5
|	Se	82	Se	**0.111**	ug/L	108.8	88.890	105.6	13.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1226986.8	1.1
⌈	Sr	88	Sr	**0.699**	ug/L	1.1	198.650	10074.8	1.1
|	Mo	95	Mo	**0.590**	ug/L	3.4	26.667	1465.6	3.7
|	Ag	107	Ag	**0.085**	ug/L	8.5	32.222	546.7	7.6
|	Cd	114	Cd	**0.013**	ug/L	51.3	42.204	89.0	25.9
|	Sn	118	Sn	**0.163**	ug/L	9.6	207.779	906.7	7.5
|	Sb	121	Sb	**0.229**	ug/L	7.8	58.889	1308.9	7.5
|	Ba	137	Ba	**4.404**	ug/L	2.6	64.445	9835.6	2.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1129894.0	0.5
⌈	Tl	203	Tl	**0.091**	ug/L	5.7	48.889	544.5	4.4
|	Pb	208	Pb	**4.226**	ug/L	3.0	2197.844	77005.4	2.3
|	U	238	U	**0.221**	ug/L	2.2	13.333	4359.6	2.4
| >	Lu	175	Lu		ug/L		1052907.074	1082049.6	0.8
⌊	Hg	200	Hg	**0.065**	ug/L	13.4	21.111	104.4	10.3

Sample ID: 580-29110-a-2-b

Sample Date/Time: Wednesday, October 19, 2011 12:25:19
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-2-b .044

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		108.651
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.880
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		102.954
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		104.927
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.768
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-3-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 12:28:26
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-3-b .045

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.011**	ug/L	113.6	7.778	15.6	53.9
⌊>	Li	6	Li		ug/L		191344.413	204277.1	1.8
⌈	Al	27	Al	**1432.210**	ug/L	1.3	12660.058	7547582.4	1.9
|	Na	23	Na	**17.839**	ug/L	2.8	33003.642	143068.7	2.6
|	Mg	24	Mg	**871.106**	ug/L	1.9	1654.541	3436513.0	2.5
|	P	31	P	**89.030**	ug/L	3.8	5192.057	36090.0	3.5
|	K	39	K	**556.251**	ug/L	2.7	483115.804	4831038.4	2.4
|	Ca	44	Ca	**132.656**	ug/L	1.6	10060.209	43750.2	0.8
⌊>	Sc	45	Sc		ug/L		1414190.814	1513880.5	0.6
⌈	Fe	54	Fe	**21000.992**	ug/L	0.3	20353.921	12263959.2	1.1
|	Ti	47	Ti	**49.773**	ug/L	1.8	397.783	40309.0	0.9
|	V	51	V	**9.578**	ug/L	2.5	2008.119	84756.5	3.1
|	Cr	52	Cr	**0.862**	ug/L	4.6	5263.192	11581.4	2.8
|	Mn	55	Mn	**59.963**	ug/L	0.2	3160.350	685711.2	1.0
|	Co	59	Co	**1.864**	ug/L	1.4	183.335	14406.2	1.7
|	Ni	60	Ni	**0.400**	ug/L	12.4	111.112	745.6	10.2
|	Cu	65	Cu	**124.810**	ug/L	1.4	113.334	215785.3	0.5
|	Zn	68	Zn	**13.100**	ug/L	2.7	536.177	12380.7	1.9
|	As	75	As	**7539.565**	ug/L	1.0	3114.424	10403734.8	0.3
|	Se	82	Se	**4.979**	ug/L	5.8	88.890	727.2	5.3
⌊>	Ge	74	Ge		ug/L		1191781.780	1225742.3	1.1
⌈	Sr	88	Sr	**1.228**	ug/L	2.7	198.650	17937.6	2.0
|	Mo	95	Mo	**0.461**	ug/L	4.7	26.667	1177.8	5.1
|	Ag	107	Ag	**1.105**	ug/L	1.1	32.222	6837.2	2.7
|	Cd	114	Cd	**0.069**	ug/L	3.1	42.204	292.7	1.8
|	Sn	118	Sn	**0.222**	ug/L	6.7	207.779	1183.4	4.9
|	Sb	121	Sb	**4.139**	ug/L	2.8	58.889	23169.9	0.9
|	Ba	137	Ba	**10.991**	ug/L	3.3	64.445	25018.6	1.7
⌊>	Rh	103	Rh		ug/L		1076837.936	1156750.8	1.8
⌈	Tl	203	Tl	**0.086**	ug/L	11.0	48.889	514.5	9.4
|	Pb	208	Pb	**3.172**	ug/L	1.6	2197.844	58050.6	0.9
|	U	238	U	**0.095**	ug/L	2.4	13.333	1860.1	2.5
| >	Lu	175	Lu		ug/L		1052907.074	1076069.5	0.6
⌊	Hg	200	Hg	**0.187**	ug/L	19.0	21.111	260.0	17.9

Sample ID: 580-29110-a-3-b

Sample Date/Time: Wednesday, October 19, 2011 12:28:26
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-3-b .045

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		106.759
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		107.049
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		102.850
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		107.421
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.200
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-4-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 12:31:29
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-4-b .046

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.004**	ug/L	187.6	7.778	11.1	45.8
⌊>	Li	6	Li		ug/L		191344.413	207713.9	1.8
⌈	Al	27	Al	**1588.201**	ug/L	1.6	12660.058	8253053.4	2.6
|	Na	23	Na	**11.838**	ug/L	3.4	33003.642	105357.3	3.0
|	Mg	24	Mg	**831.952**	ug/L	2.3	1654.541	3236165.6	1.6
|	P	31	P	**115.978**	ug/L	2.0	5192.057	44706.5	2.6
|	K	39	K	**421.046**	ug/L	1.7	483115.804	3729968.5	0.7
|	Ca	44	Ca	**82.038**	ug/L	1.2	10060.209	30737.5	1.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1492977.8	1.1
⌈	Fe	54	Fe	**14868.772**	ug/L	1.8	20353.921	8829584.1	1.1
|	Ti	47	Ti	**60.787**	ug/L	1.6	397.783	49939.4	1.1
|	V	51	V	**10.753**	ug/L	2.5	2008.119	96428.4	1.8
|	Cr	52	Cr	**0.964**	ug/L	6.9	5263.192	12503.3	3.0
|	Mn	55	Mn	**58.097**	ug/L	2.0	3160.350	675257.4	1.9
|	Co	59	Co	**4.956**	ug/L	2.3	183.335	38604.3	1.9
|	Ni	60	Ni	**0.326**	ug/L	11.6	111.112	640.0	10.1
|	Cu	65	Cu	**76.442**	ug/L	1.0	113.334	134364.5	0.8
|	Zn	68	Zn	**9.720**	ug/L	3.3	536.177	9479.8	2.3
|	As	75	As	**3666.842**	ug/L	1.1	3114.424	5143857.5	0.4
|	Se	82	Se	**2.678**	ug/L	7.1	88.890	440.6	6.6
⌊>	Ge	74	Ge		ug/L		1191781.780	1245687.5	0.9
⌈	Sr	88	Sr	**0.515**	ug/L	0.6	198.650	7681.4	2.5
|	Mo	95	Mo	**0.346**	ug/L	5.2	26.667	894.5	3.7
|	Ag	107	Ag	**0.695**	ug/L	1.6	32.222	4327.3	0.9
|	Cd	114	Cd	**0.061**	ug/L	4.4	42.204	266.4	4.6
|	Sn	118	Sn	**0.132**	ug/L	7.6	207.779	797.8	5.7
|	Sb	121	Sb	**3.487**	ug/L	1.4	58.889	19612.3	0.8
|	Ba	137	Ba	**7.715**	ug/L	2.5	64.445	17653.1	0.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1161362.0	2.1
⌈	Tl	203	Tl	**0.072**	ug/L	10.4	48.889	447.8	8.6
|	Pb	208	Pb	**5.891**	ug/L	0.5	2197.844	107101.0	0.6
|	U	238	U	**0.130**	ug/L	3.2	13.333	2575.8	3.4
| >	Lu	175	Lu		ug/L		1052907.074	1088488.5	0.6
⌊	Hg	200	Hg	**0.139**	ug/L	9.3	21.111	201.1	8.3

Sample ID: 580-29110-a-4-b

Sample Date/Time: Wednesday, October 19, 2011 12:31:29
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-4-b .046

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		108.555
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		105.571
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		104.523
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		107.849
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		103.379
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-5-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 12:34:34
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-5-b .047

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.007**	ug/L	61.6	7.778	13.3	25.0
⌊>	Li	6	Li		ug/L		191344.413	207685.1	2.9
⌈	Al	27	Al	**1158.867**	ug/L	0.9	12660.058	5989709.8	1.0
|	Na	23	Na	**15.411**	ug/L	1.8	33003.642	125877.7	0.9
|	Mg	24	Mg	**772.439**	ug/L	0.1	1654.541	2987542.5	0.5
|	P	31	P	**104.758**	ug/L	2.8	5192.057	40670.1	2.8
|	K	39	K	**315.987**	ug/L	0.8	483115.804	2909570.8	0.3
|	Ca	44	Ca	**98.518**	ug/L	1.9	10060.209	34574.0	1.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1484214.5	0.4
⌈	Fe	54	Fe	**15392.226**	ug/L	0.8	20353.921	9033374.8	0.7
|	Ti	47	Ti	**42.060**	ug/L	1.2	397.783	34276.6	0.6
|	V	51	V	**8.574**	ug/L	2.2	2008.119	76407.8	1.1
|	Cr	52	Cr	**0.708**	ug/L	5.2	5263.192	10521.7	2.2
|	Mn	55	Mn	**43.261**	ug/L	0.8	3160.350	497832.3	2.0
|	Co	59	Co	**1.047**	ug/L	1.8	183.335	8206.8	0.7
|	Ni	60	Ni	**0.320**	ug/L	8.1	111.112	623.3	7.7
|	Cu	65	Cu	**56.725**	ug/L	2.0	113.334	98564.4	1.2
|	Zn	68	Zn	**5.346**	ug/L	2.7	536.177	5402.9	2.4
|	As	75	As	**1011.129**	ug/L	1.2	3114.424	1404221.8	1.3
|	Se	82	Se	**1.077**	ug/L	5.3	88.890	230.0	4.3
⌊>	Ge	74	Ge		ug/L		1191781.780	1231152.0	1.3
⌈	Sr	88	Sr	**0.737**	ug/L	3.3	198.650	10916.0	3.8
|	Mo	95	Mo	**0.235**	ug/L	7.3	26.667	617.8	6.3
|	Ag	107	Ag	**0.520**	ug/L	2.1	32.222	3251.5	1.9
|	Cd	114	Cd	**0.010**	ug/L	55.3	42.204	82.2	24.4
|	Sn	118	Sn	**0.120**	ug/L	11.6	207.779	745.6	8.2
|	Sb	121	Sb	**0.641**	ug/L	2.2	58.889	3658.2	2.7
|	Ba	137	Ba	**5.046**	ug/L	1.3	64.445	11583.6	1.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1162172.7	0.6
⌈	Tl	203	Tl	**0.052**	ug/L	11.9	48.889	333.3	9.0
|	Pb	208	Pb	**2.332**	ug/L	1.7	2197.844	43209.9	0.3
|	U	238	U	**0.074**	ug/L	4.1	13.333	1449.0	5.4
| >	Lu	175	Lu		ug/L		1052907.074	1074886.1	1.3
⌊	Hg	200	Hg	**0.015**	ug/L	63.5	21.111	40.0	28.9

Sample ID: 580-29110-a-5-b

Sample Date/Time: Wednesday, October 19, 2011 12:34:34
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-5-b .047

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		108.540
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.952
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.303
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		107.925
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.087
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-3-b

Sample Description: 1000X
Sample Date/Time: Wednesday, October 19, 2011 12:40:43
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-3-b .049

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.004**	ug/L	262.3	7.778	5.6	124.9
⌊>	Li	6	Li		ug/L		191344.413	203537.8	1.8
⌈	Al	27	Al	**148.103**	ug/L	1.8	12660.058	745124.1	0.2
|	Na	23	Na	**0.951**	ug/L	28.3	33003.642	38602.1	2.3
|	Mg	24	Mg	**85.971**	ug/L	3.8	1654.541	320244.0	2.1
|	P	31	P	**6.704**	ug/L	11.0	5192.057	7385.2	1.6
|	K	39	K	**53.348**	ug/L	5.0	483115.804	875100.0	0.3
|	Ca	44	Ca	**6.660**	ug/L	17.3	10060.209	11680.3	0.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1423528.8	1.9
⌈	Fe	54	Fe	**1859.941**	ug/L	3.2	20353.921	1083332.1	1.9
|	Ti	47	Ti	**4.285**	ug/L	4.0	397.783	3768.3	2.1
|	V	51	V	**0.799**	ug/L	16.6	2008.119	8780.3	11.9
|	Cr	52	Cr	**0.023**	ug/L	151.3	5263.192	5467.7	3.3
|	Mn	55	Mn	**5.957**	ug/L	2.6	3160.350	69649.4	1.5
|	Co	59	Co	**0.178**	ug/L	3.2	183.335	1516.7	2.1
|	Ni	60	Ni	**0.065**	ug/L	10.8	111.112	212.2	6.5
|	Cu	65	Cu	**11.958**	ug/L	3.1	113.334	20372.3	2.5
|	Zn	68	Zn	**1.374**	ug/L	9.9	536.177	1756.5	5.4
|	As	75	As	**625.984**	ug/L	1.0	3114.424	849766.6	0.8
|	Se	82	Se	**0.518**	ug/L	15.5	88.890	154.4	5.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1201783.1	1.5
⌈	Sr	88	Sr	**0.130**	ug/L	7.3	198.650	1951.2	6.6
|	Mo	95	Mo	**0.046**	ug/L	29.1	26.667	134.4	23.0
|	Ag	107	Ag	**0.107**	ug/L	11.5	32.222	648.9	10.9
|	Cd	114	Cd	**0.008**	ug/L	63.0	42.204	69.9	24.6
|	Sn	118	Sn	**0.052**	ug/L	12.5	207.779	417.8	6.4
|	Sb	121	Sb	**0.428**	ug/L	2.0	58.889	2292.4	2.1
|	Ba	137	Ba	**1.048**	ug/L	3.8	64.445	2290.2	3.4
⌊>	Rh	103	Rh		ug/L		1076837.936	1082017.5	0.4
⌈	Tl	203	Tl	**0.021**	ug/L	22.3	48.889	153.3	14.3
|	Pb	208	Pb	**0.295**	ug/L	6.8	2197.844	7014.0	3.3
|	U	238	U	**0.009**	ug/L	19.1	13.333	185.6	19.4
| >	Lu	175	Lu		ug/L		1052907.074	1016577.2	1.6
⌊	Hg	200	Hg	**0.010**	ug/L	54.6	21.111	32.2	21.5

Sample ID: 580-29110-a-3-b

Sample Date/Time: Wednesday, October 19, 2011 12:40:43
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-3-b .049

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		106.372
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		100.660
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.839
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.481
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		96.550
⌊	Hg	200	Hg		

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 12:50:04
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.052

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**48.646**	ug/L	1.8	7.778	30265.4	0.5
⌊>	Li	6	Li		ug/L		191344.413	197382.3	1.7
⌈	Al	27	Al	**485.136**	ug/L	1.4	12660.058	2344380.5	0.4
|	Na	23	Na	**4936.717**	ug/L	1.5	33003.642	27277033.7	1.0
|	Mg	24	Mg	**4954.489**	ug/L	1.0	1654.541	17852791.1	0.1
|	P	31	P	**4772.386**	ug/L	2.6	5192.057	1500453.2	1.6
|	K	39	K	**5158.815**	ug/L	3.0	483115.804	37030118.4	2.0
|	Ca	44	Ca	**4705.337**	ug/L	1.0	10060.209	1078982.9	0.9
⌊>	Sc	45	Sc		ug/L		1414190.814	1383558.0	1.1
⌈	Fe	54	Fe	**5055.343**	ug/L	1.0	20353.921	2820272.9	0.5
|	Ti	47	Ti	**49.178**	ug/L	1.9	397.783	37855.7	2.3
|	V	51	V	**49.321**	ug/L	0.8	2008.119	406566.8	1.4
|	Cr	52	Cr	**49.732**	ug/L	1.2	5263.192	343151.4	0.7
|	Mn	55	Mn	**50.684**	ug/L	1.3	3160.350	551213.4	0.7
|	Co	59	Co	**50.382**	ug/L	1.8	183.335	365311.3	1.4
|	Ni	60	Ni	**50.629**	ug/L	1.5	111.112	76114.5	0.9
|	Cu	65	Cu	**49.472**	ug/L	0.7	113.334	81348.7	0.3
|	Zn	68	Zn	**49.380**	ug/L	1.8	536.177	42899.1	1.2
|	As	75	As	**50.722**	ug/L	0.5	3114.424	69534.3	0.1
|	Se	82	Se	**50.802**	ug/L	1.2	88.890	6252.0	1.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1164746.2	0.6
⌈	Sr	88	Sr	**51.332**	ug/L	0.9	198.650	662093.8	0.7
|	Mo	95	Mo	**49.879**	ug/L	0.7	26.667	111029.8	0.2
|	Ag	107	Ag	**50.499**	ug/L	0.8	32.222	277566.2	0.5
|	Cd	114	Cd	**50.056**	ug/L	0.2	42.204	160074.7	1.1
|	Sn	118	Sn	**49.469**	ug/L	1.8	207.779	191718.0	1.4
|	Sb	121	Sb	**50.280**	ug/L	1.0	58.889	250769.7	0.8
|	Ba	137	Ba	**48.774**	ug/L	1.3	64.445	98959.4	0.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1032904.6	0.9
⌈	Tl	203	Tl	**50.399**	ug/L	1.1	48.889	249502.7	2.0
|	Pb	208	Pb	**50.852**	ug/L	1.3	2197.844	817102.8	0.3
|	U	238	U	**50.792**	ug/L	0.9	13.333	904005.8	0.3
| >	Lu	175	Lu		ug/L		1052907.074	980509.9	1.2
⌊	Hg	200	Hg	**2.357**	ug/L	3.5	21.111	2753.6	2.7

Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 19, 2011 12:50:04
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.052

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	97.293	
⌊>	Li	6	Li		103.155
⌈	Al	27	Al	97.027	
|	Na	23	Na	98.734	
|	Mg	24	Mg	99.090	
|	P	31	P	95.448	
|	K	39	K	103.176	
|	Ca	44	Ca	94.107	
⌊>	Sc	45	Sc		97.834
⌈	Fe	54	Fe	101.107	
|	Ti	47	Ti	98.355	
|	V	51	V	98.643	
|	Cr	52	Cr	99.464	
|	Mn	55	Mn	101.368	
|	Co	59	Co	100.764	
|	Ni	60	Ni	101.258	
|	Cu	65	Cu	98.944	
|	Zn	68	Zn	98.759	
|	As	75	As	101.444	
|	Se	82	Se	101.604	
⌊>	Ge	74	Ge		97.731
⌈	Sr	88	Sr	102.663	
|	Mo	95	Mo	99.758	
|	Ag	107	Ag	100.997	
|	Cd	114	Cd	100.112	
|	Sn	118	Sn	98.938	
|	Sb	121	Sb	100.560	
|	Ba	137	Ba	97.547	
⌊>	Rh	103	Rh		95.920
⌈	Tl	203	Tl	100.797	
|	Pb	208	Pb	101.704	
|	U	238	U	101.584	
|>	Lu	175	Lu		93.124
⌊	Hg	200	Hg	94.281	

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 12:53:15
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.053

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.004**	ug/L	80.0	7.778	5.6	34.6
⌊>	Li	6	Li		ug/L		191344.413	192074.3	2.5
⌈	Al	27	Al	**0.390**	ug/L	25.5	12660.058	14031.3	3.9
|	Na	23	Na	**-1.877**	ug/L	3.5	33003.642	21579.6	2.1
|	Mg	24	Mg	**0.085**	ug/L	41.0	1654.541	1895.7	7.1
|	P	31	P	**1.721**	ug/L	51.4	5192.057	5530.0	5.6
|	K	39	K	**4.049**	ug/L	10.7	483115.804	493293.4	0.3
|	Ca	44	Ca	**-5.481**	ug/L	23.6	10060.209	8460.3	4.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1361361.4	0.8
⌈	Fe	54	Fe	**4.850**	ug/L	23.1	20353.921	22182.9	2.1
|	Ti	47	Ti	**-0.197**	ug/L	33.6	397.783	234.4	20.2
|	V	51	V	**-0.161**	ug/L	33.1	2008.119	628.3	67.8
|	Cr	52	Cr	**0.016**	ug/L	175.4	5263.192	5159.8	2.8
|	Mn	55	Mn	**-0.116**	ug/L	5.5	3160.350	1805.7	3.7
|	Co	59	Co	**0.005**	ug/L	40.1	183.335	213.3	7.8
|	Ni	60	Ni	**0.014**	ug/L	41.6	111.112	127.8	6.6
|	Cu	65	Cu	**-0.014**	ug/L	26.2	113.334	85.6	8.1
|	Zn	68	Zn	**0.241**	ug/L	37.5	536.177	717.3	9.8
|	As	75	As	**0.184**	ug/L	60.6	3114.424	3228.6	5.0
|	Se	82	Se	**-0.055**	ug/L	144.9	88.890	78.9	12.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1144479.0	1.0
⌈	Sr	88	Sr	**0.004**	ug/L	42.6	198.650	237.3	8.1
|	Mo	95	Mo	**0.046**	ug/L	9.4	26.667	127.8	7.5
|	Ag	107	Ag	**0.012**	ug/L	74.5	32.222	96.7	51.0
|	Cd	114	Cd	**-0.004**	ug/L	100.8	42.204	28.8	40.7
|	Sn	118	Sn	**0.141**	ug/L	14.4	207.779	748.9	10.5
|	Sb	121	Sb	**0.040**	ug/L	36.2	58.889	256.7	28.2
|	Ba	137	Ba	**-0.002**	ug/L	598.4	64.445	57.8	44.8
⌊>	Rh	103	Rh		ug/L		1076837.936	1036039.7	0.5
⌈	Tl	203	Tl	**0.165**	ug/L	19.5	48.889	853.4	17.8
|	Pb	208	Pb	**0.002**	ug/L	249.2	2197.844	2063.4	4.9
|	U	238	U	**0.022**	ug/L	31.0	13.333	395.6	29.7
| >	Lu	175	Lu		ug/L		1052907.074	970071.1	1.2
⌊	Hg	200	Hg	**0.017**	ug/L	109.1	21.111	38.9	54.4

Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 19, 2011 12:53:15
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.053

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		100.381
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		96.264
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		96.031
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		96.211
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		92.133
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-6-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 12:56:25
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-6-b .054

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.007**	ug/L	283.8	7.778	13.3	100.0
⌊>	Li	6	Li		ug/L		191344.413	208651.9	3.8
⌈	Al	27	Al	**1065.019**	ug/L	1.3	12660.058	5559743.7	0.9
|	Na	23	Na	**12.059**	ug/L	1.9	33003.642	107083.2	1.4
|	Mg	24	Mg	**491.418**	ug/L	1.4	1654.541	1919887.4	0.6
|	P	31	P	**115.188**	ug/L	4.0	5192.057	44598.4	2.2
|	K	39	K	**260.522**	ug/L	1.0	483115.804	2512420.0	1.0
|	Ca	44	Ca	**97.863**	ug/L	3.4	10060.209	34750.0	2.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1498945.7	1.5
⌈	Fe	54	Fe	**13299.900**	ug/L	1.0	20353.921	7806068.4	1.4
|	Ti	47	Ti	**35.861**	ug/L	2.0	397.783	29276.6	1.8
|	V	51	V	**6.263**	ug/L	1.3	2008.119	56354.0	0.7
|	Cr	52	Cr	**1.026**	ug/L	2.6	5263.192	12800.2	1.6
|	Mn	55	Mn	**36.168**	ug/L	1.6	3160.350	416553.0	1.1
|	Co	59	Co	**1.197**	ug/L	3.9	183.335	9357.5	3.6
|	Ni	60	Ni	**0.307**	ug/L	2.7	111.112	602.2	2.2
|	Cu	65	Cu	**119.812**	ug/L	1.5	113.334	208008.1	1.7
|	Zn	68	Zn	**5.042**	ug/L	4.9	536.177	5125.5	4.1
|	As	75	As	**1116.104**	ug/L	1.2	3114.424	1549103.0	0.6
|	Se	82	Se	**1.281**	ug/L	2.3	88.890	256.1	2.1
⌊>	Ge	74	Ge		ug/L		1191781.780	1230709.3	0.6
⌈	Sr	88	Sr	**0.589**	ug/L	1.4	198.650	8690.4	2.1
|	Mo	95	Mo	**0.270**	ug/L	7.1	26.667	698.9	6.0
|	Ag	107	Ag	**0.457**	ug/L	2.1	32.222	2842.5	2.9
|	Cd	114	Cd	**0.022**	ug/L	5.5	42.204	124.9	3.7
|	Sn	118	Sn	**0.136**	ug/L	8.7	207.779	811.1	6.0
|	Sb	121	Sb	**0.716**	ug/L	3.3	58.889	4050.6	3.1
|	Ba	137	Ba	**4.222**	ug/L	2.2	64.445	9629.9	3.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1153426.6	0.8
⌈	Tl	203	Tl	**0.072**	ug/L	15.5	48.889	443.3	13.3
|	Pb	208	Pb	**3.355**	ug/L	1.3	2197.844	61526.1	1.6
|	U	238	U	**0.338**	ug/L	3.4	13.333	6650.4	2.1
| >	Lu	175	Lu		ug/L		1052907.074	1080574.4	1.3
⌊	Hg	200	Hg	**0.061**	ug/L	6.9	21.111	100.0	6.7

Sample ID: 580-29110-a-6-b

Sample Date/Time: Wednesday, October 19, 2011 12:56:25
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-6-b .054

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		109.045
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		105.993
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.266
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		107.112
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.628
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-7-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 12:59:32
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-7-b .055

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.140**	ug/L	3.1	7.778	98.9	1.9
⌊>	Li	6	Li		ug/L		191344.413	205290.2	0.9
⌈	Al	27	Al	**1154.236**	ug/L	1.0	12660.058	6069232.4	1.3
|	Na	23	Na	**14.888**	ug/L	0.7	33003.642	124914.9	0.7
|	Mg	24	Mg	**500.188**	ug/L	1.1	1654.541	1968725.3	1.4
|	P	31	P	**148.539**	ug/L	1.2	5192.057	56344.2	0.4
|	K	39	K	**132.970**	ug/L	1.6	483115.804	1544293.8	0.1
|	Ca	44	Ca	**984.712**	ug/L	1.6	10060.209	254923.5	1.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1509979.2	1.1
⌈	Fe	54	Fe	**18665.988**	ug/L	1.9	20353.921	11026076.7	1.5
|	Ti	47	Ti	**3.520**	ug/L	5.5	397.783	3268.2	5.2
|	V	51	V	**19.217**	ug/L	2.0	2008.119	169855.1	1.4
|	Cr	52	Cr	**0.532**	ug/L	4.8	5263.192	9320.8	1.4
|	Mn	55	Mn	**2376.285**	ug/L	0.8	3160.350	27356174.8	0.9
|	Co	59	Co	**6.244**	ug/L	0.6	183.335	48358.4	0.3
|	Ni	60	Ni	**0.668**	ug/L	5.6	111.112	1183.4	5.2
|	Cu	65	Cu	**12.413**	ug/L	0.1	113.334	21813.3	0.6
|	Zn	68	Zn	**114.419**	ug/L	1.8	536.177	105063.5	1.3
|	As	75	As	**1065.463**	ug/L	0.6	3114.424	1489802.5	0.7
|	Se	82	Se	**0.041**	ug/L	404.6	88.890	97.8	21.9
⌊>	Ge	74	Ge		ug/L		1191781.780	1239679.0	0.6
⌈	Sr	88	Sr	**4.797**	ug/L	0.3	198.650	68676.6	1.3
|	Mo	95	Mo	**0.419**	ug/L	3.9	26.667	1060.0	2.8
|	Ag	107	Ag	**1.959**	ug/L	0.6	32.222	11949.4	1.7
|	Cd	114	Cd	**1.018**	ug/L	2.0	42.204	3646.4	2.4
|	Sn	118	Sn	**0.148**	ug/L	11.7	207.779	854.5	7.5
|	Sb	121	Sb	**24.917**	ug/L	1.5	58.889	137576.0	0.7
|	Ba	137	Ba	**10.165**	ug/L	2.6	64.445	22880.5	1.4
⌊>	Rh	103	Rh		ug/L		1076837.936	1143320.8	1.4
⌈	Tl	203	Tl	**0.190**	ug/L	5.3	48.889	1083.4	6.1
|	Pb	208	Pb	**81.053**	ug/L	1.3	2197.844	1428051.8	0.6
|	U	238	U	**0.021**	ug/L	2.4	13.333	431.1	1.6
| >	Lu	175	Lu		ug/L		1052907.074	1076123.4	1.1
⌊	Hg	200	Hg	**0.167**	ug/L	17.8	21.111	234.4	15.2

Sample ID: 580-29110-a-7-b

Sample Date/Time: Wednesday, October 19, 2011 12:59:32
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-7-b .055

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		107.288
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		106.773
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		104.019
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		106.174
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.205
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-8-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 13:02:41
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-8-b .056

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.009**	ug/L	131.1	7.778	14.4	53.3
⌊>	Li	6	Li		ug/L		191344.413	207933.6	1.3
⌈	Al	27	Al	**1265.817**	ug/L	2.0	12660.058	6521811.0	1.5
|	Na	23	Na	**11.086**	ug/L	2.2	33003.642	100015.8	3.5
|	Mg	24	Mg	**92.810**	ug/L	0.5	1654.541	359521.0	2.7
|	P	31	P	**50.319**	ug/L	4.8	5192.057	22296.3	2.7
|	K	39	K	**20.470**	ug/L	7.9	483115.804	660675.7	0.7
|	Ca	44	Ca	**40.546**	ug/L	2.1	10060.209	20383.4	1.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1480123.0	2.2
⌈	Fe	54	Fe	**2235.782**	ug/L	2.5	20353.921	1335156.9	2.1
|	Ti	47	Ti	**54.401**	ug/L	3.0	397.783	44380.0	2.2
|	V	51	V	**7.499**	ug/L	1.4	2008.119	67345.5	0.9
|	Cr	52	Cr	**0.338**	ug/L	4.9	5263.192	7892.2	1.7
|	Mn	55	Mn	**39.203**	ug/L	3.1	3160.350	453050.3	2.0
|	Co	59	Co	**0.403**	ug/L	2.1	183.335	3289.3	2.9
|	Ni	60	Ni	**0.347**	ug/L	4.6	111.112	667.8	3.7
|	Cu	65	Cu	**0.976**	ug/L	0.6	113.334	1819.0	1.6
|	Zn	68	Zn	**3.737**	ug/L	2.8	536.177	3958.4	1.5
|	As	75	As	**20.485**	ug/L	1.1	3114.424	31723.1	1.3
|	Se	82	Se	**0.022**	ug/L	187.5	88.890	95.0	6.3
⌊>	Ge	74	Ge		ug/L		1191781.780	1235868.0	1.0
⌈	Sr	88	Sr	**0.466**	ug/L	1.9	198.650	6969.1	1.8
|	Mo	95	Mo	**0.064**	ug/L	7.5	26.667	188.9	6.7
|	Ag	107	Ag	**0.100**	ug/L	4.9	32.222	653.3	4.9
|	Cd	114	Cd	**0.031**	ug/L	14.1	42.204	156.7	10.0
|	Sn	118	Sn	**0.100**	ug/L	9.2	207.779	660.0	6.1
|	Sb	121	Sb	**0.895**	ug/L	4.2	58.889	5079.8	4.0
|	Ba	137	Ba	**1.329**	ug/L	2.3	64.445	3098.1	2.0
⌊>	Rh	103	Rh		ug/L		1076837.936	1160745.8	0.3
⌈	Tl	203	Tl	**0.029**	ug/L	16.1	48.889	212.2	11.8
|	Pb	208	Pb	**4.012**	ug/L	1.4	2197.844	74043.9	1.4
|	U	238	U	**0.038**	ug/L	8.4	13.333	767.8	7.7
| >	Lu	175	Lu		ug/L		1052907.074	1094110.3	0.7
⌊	Hg	200	Hg	**0.008**	ug/L	47.6	21.111	32.2	15.8

Sample ID: 580-29110-a-8-b

Sample Date/Time: Wednesday, October 19, 2011 13:02:41
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-8-b .056

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		108.670
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.662
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.699
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		107.792
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
| >	Lu	175	Lu		103.913
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-9-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 13:05:49
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-9-b .057

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.002**	ug/L	420.6	7.778	10.0	66.7
⌊>	Li	6	Li		ug/L		191344.413	207559.3	1.0
⌈	Al	27	Al	**233.539**	ug/L	2.3	12660.058	1200166.0	2.0
|	Na	23	Na	**1.407**	ug/L	10.3	33003.642	42352.7	1.8
|	Mg	24	Mg	**46.530**	ug/L	0.4	1654.541	178989.9	0.5
|	P	31	P	**61.018**	ug/L	2.7	5192.057	25589.6	1.9
|	K	39	K	**96.046**	ug/L	3.1	483115.804	1219547.8	1.7
|	Ca	44	Ca	**77.917**	ug/L	2.9	10060.209	29128.6	2.1
⌊>	Sc	45	Sc		ug/L		1414190.814	1462929.7	0.3
⌈	Fe	54	Fe	**28452.811**	ug/L	0.8	20353.921	16476729.2	0.3
|	Ti	47	Ti	**0.750**	ug/L	16.8	397.783	1003.4	11.0
|	V	51	V	**2.206**	ug/L	4.2	2008.119	20933.8	2.7
|	Cr	52	Cr	**0.033**	ug/L	105.8	5263.192	5602.2	4.3
|	Mn	55	Mn	**63.247**	ug/L	1.7	3160.350	717319.8	0.7
|	Co	59	Co	**15.247**	ug/L	1.6	183.335	115548.8	0.8
|	Ni	60	Ni	**1.872**	ug/L	3.2	111.112	3047.0	2.0
|	Cu	65	Cu	**340.000**	ug/L	1.1	113.334	583017.8	0.0
|	Zn	68	Zn	**26.193**	ug/L	1.8	536.177	24014.6	0.7
|	As	75	As	**13105.820**	ug/L	0.6	3114.424	17940505.4	0.6
|	Se	82	Se	**0.349**	ug/L	9.1	88.890	135.0	3.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1216109.1	1.1
⌈	Sr	88	Sr	**0.115**	ug/L	4.3	198.650	1837.0	4.1
|	Mo	95	Mo	**0.379**	ug/L	7.7	26.667	952.3	7.9
|	Ag	107	Ag	**13.455**	ug/L	1.7	32.222	81072.7	1.0
|	Cd	114	Cd	**0.082**	ug/L	7.8	42.204	332.4	6.3
|	Sn	118	Sn	**0.220**	ug/L	1.2	207.779	1153.4	1.6
|	Sb	121	Sb	**5.680**	ug/L	1.4	58.889	31103.8	1.6
|	Ba	137	Ba	**1.806**	ug/L	3.9	64.445	4080.6	3.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1131974.8	0.8
⌈	Tl	203	Tl	**0.026**	ug/L	15.9	48.889	186.7	10.7
|	Pb	208	Pb	**188.920**	ug/L	2.4	2197.844	3293682.6	1.2
|	U	238	U	**0.016**	ug/L	9.1	13.333	323.3	8.8
| >	Lu	175	Lu		ug/L		1052907.074	1065925.1	1.3
⌊	Hg	200	Hg	**0.057**	ug/L	4.8	21.111	93.3	3.6

Sample ID: 580-29110-a-9-b

Sample Date/Time: Wednesday, October 19, 2011 13:05:49
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-9-b .057

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		108.474
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.446
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		102.041
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		105.120
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.236
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-10-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 13:08:59
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-10-b .058

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.021**	ug/L	17.9	7.778	22.2	8.7
⌊>	Li	6	Li		ug/L		191344.413	208797.7	2.6
⌈	Al	27	Al	**1244.768**	ug/L	2.6	12660.058	6401770.1	2.3
|	Na	23	Na	**1.362**	ug/L	4.4	33003.642	42497.6	1.3
|	Mg	24	Mg	**256.973**	ug/L	1.0	1654.541	990285.2	0.6
|	P	31	P	**105.232**	ug/L	3.8	5192.057	40630.0	2.9
|	K	39	K	**42.989**	ug/L	3.1	483115.804	829900.4	0.7
|	Ca	44	Ca	**463.824**	ug/L	1.2	10060.209	123028.6	0.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1477159.1	0.5
⌈	Fe	54	Fe	**41249.674**	ug/L	0.9	20353.921	24186587.8	0.6
|	Ti	47	Ti	**6.377**	ug/L	0.7	397.783	5548.9	1.3
|	V	51	V	**3.423**	ug/L	3.9	2008.119	31767.4	3.4
|	Cr	52	Cr	**0.705**	ug/L	4.0	5263.192	10505.0	1.1
|	Mn	55	Mn	**431.837**	ug/L	0.8	3160.350	4942383.4	0.7
|	Co	59	Co	**12.615**	ug/L	1.6	183.335	96871.8	0.8
|	Ni	60	Ni	**3.355**	ug/L	5.1	111.112	5441.0	4.8
|	Cu	65	Cu	**174.164**	ug/L	1.5	113.334	302561.7	0.7
|	Zn	68	Zn	**78.802**	ug/L	0.7	536.177	72074.9	0.8
|	As	75	As	**8191.120**	ug/L	1.1	3114.424	11358540.3	0.3
|	Se	82	Se	**0.363**	ug/L	35.1	88.890	138.3	11.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1231807.7	0.8
⌈	Sr	88	Sr	**2.232**	ug/L	1.1	198.650	31970.3	1.1
|	Mo	95	Mo	**1.167**	ug/L	2.8	26.667	2894.7	2.8
|	Ag	107	Ag	**5.504**	ug/L	0.8	32.222	33412.4	0.7
|	Cd	114	Cd	**0.366**	ug/L	2.7	42.204	1335.7	2.5
|	Sn	118	Sn	**0.074**	ug/L	13.0	207.779	536.7	7.6
|	Sb	121	Sb	**2.217**	ug/L	2.2	58.889	12260.8	2.0
|	Ba	137	Ba	**17.279**	ug/L	2.3	64.445	38725.8	2.3
⌊>	Rh	103	Rh		ug/L		1076837.936	1139617.6	0.2
⌈	Tl	203	Tl	**0.028**	ug/L	11.9	48.889	201.1	8.3
|	Pb	208	Pb	**76.631**	ug/L	1.2	2197.844	1342822.0	1.3
|	U	238	U	**0.081**	ug/L	4.3	13.333	1592.3	4.3
| >	Lu	175	Lu		ug/L		1052907.074	1070099.8	0.7
⌊	Hg	200	Hg	**0.086**	ug/L	15.2	21.111	130.0	13.3

Sample ID: 580-29110-a-10-b

Sample Date/Time: Wednesday, October 19, 2011 13:08:59
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-10-b .058

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		109.121
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		104.453
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		103.358
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		105.830
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		101.633
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-9-b

Sample Description: 1000X
Sample Date/Time: Wednesday, October 19, 2011 13:21:35
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-9-b .062

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.001**	ug/L	976.8	7.778	7.8	65.5
⌊>	Li	6	Li		ug/L		191344.413	203169.4	2.2
⌈	Al	27	Al	**29.524**	ug/L	2.3	12660.058	156803.7	1.0
|	Na	23	Na	**-0.947**	ug/L	19.0	33003.642	27488.6	1.7
|	Mg	24	Mg	**4.617**	ug/L	2.7	1654.541	18547.6	1.2
|	P	31	P	**6.439**	ug/L	15.0	5192.057	7209.6	2.3
|	K	39	K	**12.038**	ug/L	8.4	483115.804	567001.3	0.7
|	Ca	44	Ca	**1.108**	ug/L	127.5	10060.209	10255.9	2.1
⌊>	Sc	45	Sc		ug/L		1414190.814	1406174.2	2.0
⌈	Fe	54	Fe	**2504.696**	ug/L	1.5	20353.921	1417219.5	1.1
|	Ti	47	Ti	**-0.084**	ug/L	20.3	397.783	326.7	4.1
|	V	51	V	**0.224**	ug/L	58.0	2008.119	3823.3	27.9
|	Cr	52	Cr	**-0.017**	ug/L	152.8	5263.192	5066.5	3.1
|	Mn	55	Mn	**6.412**	ug/L	2.0	3160.350	72936.9	1.7
|	Co	59	Co	**1.440**	ug/L	2.7	183.335	10691.8	2.1
|	Ni	60	Ni	**0.174**	ug/L	19.4	111.112	372.2	13.9
|	Cu	65	Cu	**33.288**	ug/L	1.7	113.334	55156.3	1.3
|	Zn	68	Zn	**2.688**	ug/L	2.0	536.177	2850.8	1.3
|	As	75	As	**1039.892**	ug/L	1.2	3114.424	1375778.5	0.7
|	Se	82	Se	**0.103**	ug/L	61.0	88.890	100.0	7.3
⌊>	Ge	74	Ge		ug/L		1191781.780	1172920.4	0.5
⌈	Sr	88	Sr	**0.017**	ug/L	7.3	198.650	430.1	5.2
|	Mo	95	Mo	**0.033**	ug/L	28.1	26.667	102.2	19.9
|	Ag	107	Ag	**1.304**	ug/L	2.2	32.222	7447.5	0.7
|	Cd	114	Cd	**0.005**	ug/L	139.7	42.204	59.9	43.0
|	Sn	118	Sn	**0.032**	ug/L	36.5	207.779	334.4	13.2
|	Sb	121	Sb	**0.530**	ug/L	1.1	58.889	2792.5	2.6
|	Ba	137	Ba	**0.183**	ug/L	3.1	64.445	448.9	2.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1068971.5	1.7
⌈	Tl	203	Tl	**0.012**	ug/L	60.2	48.889	108.9	35.5
|	Pb	208	Pb	**19.757**	ug/L	2.2	2197.844	327057.9	0.9
|	U	238	U	**0.002**	ug/L	34.1	13.333	50.0	24.0
| >	Lu	175	Lu		ug/L		1052907.074	1006273.0	1.3
⌊	Hg	200	Hg	**-0.000**	ug/L	5283.1	21.111	20.0	66.7

Sample ID: 580-29110-a-9-b

Sample Date/Time: Wednesday, October 19, 2011 13:21:35
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-9-b .062

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		106.180
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		99.433
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		98.417
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.269
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		95.571
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-10-b

Sample Description: 1000X
Sample Date/Time: Wednesday, October 19, 2011 13:24:39
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-10-b .063

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.005**	ug/L	174.2	7.778	11.1	45.8
⌊>	Li	6	Li		ug/L		191344.413	200449.1	2.0
⌈	Al	27	Al	**127.590**	ug/L	0.9	12660.058	630991.8	2.2
|	Na	23	Na	**-0.897**	ug/L	6.8	33003.642	27567.7	2.2
|	Mg	24	Mg	**26.580**	ug/L	2.2	1654.541	98184.0	0.8
|	P	31	P	**8.704**	ug/L	3.4	5192.057	7873.3	2.8
|	K	39	K	**6.347**	ug/L	31.4	483115.804	521768.7	0.1
|	Ca	44	Ca	**39.584**	ug/L	7.2	10060.209	18984.8	0.8
⌊>	Sc	45	Sc		ug/L		1414190.814	1395290.3	2.7
⌈	Fe	54	Fe	**3860.653**	ug/L	8.1	20353.921	2211137.0	8.4
|	Ti	47	Ti	**0.396**	ug/L	14.5	397.783	706.7	5.3
|	V	51	V	**0.385**	ug/L	11.6	2008.119	5243.5	7.5
|	Cr	52	Cr	**0.022**	ug/L	18.5	5263.192	5422.1	1.0
|	Mn	55	Mn	**39.421**	ug/L	2.1	3160.350	439739.3	1.2
|	Co	59	Co	**1.228**	ug/L	3.1	183.335	9296.4	1.7
|	Ni	60	Ni	**0.345**	ug/L	1.4	111.112	641.1	0.3
|	Cu	65	Cu	**17.199**	ug/L	1.2	113.334	29037.3	0.4
|	Zn	68	Zn	**7.749**	ug/L	3.8	536.177	7345.8	2.5
|	As	75	As	**674.906**	ug/L	1.5	3114.424	909128.7	0.2
|	Se	82	Se	**0.018**	ug/L	710.8	88.890	91.1	16.6
⌊>	Ge	74	Ge		ug/L		1191781.780	1192929.8	1.5
⌈	Sr	88	Sr	**0.221**	ug/L	5.9	198.650	3162.2	5.6
|	Mo	95	Mo	**0.113**	ug/L	7.2	26.667	287.8	7.1
|	Ag	107	Ag	**0.567**	ug/L	4.6	32.222	3279.3	5.1
|	Cd	114	Cd	**0.033**	ug/L	13.9	42.204	152.8	10.0
|	Sn	118	Sn	**0.015**	ug/L	17.6	207.779	266.7	4.5
|	Sb	121	Sb	**0.227**	ug/L	6.2	58.889	1236.7	6.2
|	Ba	137	Ba	**1.682**	ug/L	2.5	64.445	3618.2	3.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1075952.3	0.6
⌈	Tl	203	Tl	**0.009**	ug/L	13.9	48.889	95.6	7.3
|	Pb	208	Pb	**7.809**	ug/L	0.8	2197.844	131953.3	0.2
|	U	238	U	**0.010**	ug/L	11.4	13.333	202.2	9.9
| >	Lu	175	Lu		ug/L		1052907.074	1017075.5	0.7
⌊	Hg	200	Hg	**0.008**	ug/L	210.3	21.111	30.0	67.6

Sample ID: 580-29110-a-10-b

Sample Date/Time: Wednesday, October 19, 2011 13:24:39
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-10-b .063

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		104.758
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.664
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.096
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.918
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		96.597
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 13:27:46
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.064

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**48.775**	ug/L	1.4	7.778	30382.3	2.9
⌊>	Li	6	Li		ug/L		191344.413	197561.4	1.6
⌈	Al	27	Al	**488.387**	ug/L	0.8	12660.058	2349946.7	1.4
|	Na	23	Na	**4987.909**	ug/L	2.3	33003.642	27436856.3	1.2
|	Mg	24	Mg	**5006.111**	ug/L	0.7	1654.541	17960511.1	0.5
|	P	31	P	**4777.764**	ug/L	0.5	5192.057	1495885.6	1.5
|	K	39	K	**5107.259**	ug/L	0.8	483115.804	36510541.3	0.9
|	Ca	44	Ca	**4622.067**	ug/L	1.2	10060.209	1055586.7	2.3
⌊>	Sc	45	Sc		ug/L		1414190.814	1377530.5	1.2
⌈	Fe	54	Fe	**5072.300**	ug/L	1.2	20353.921	2787032.2	1.1
|	Ti	47	Ti	**50.186**	ug/L	1.0	397.783	38039.5	1.2
|	V	51	V	**50.200**	ug/L	1.4	2008.119	407546.4	2.0
|	Cr	52	Cr	**50.109**	ug/L	0.6	5263.192	340510.5	0.6
|	Mn	55	Mn	**50.486**	ug/L	0.6	3160.350	540815.8	0.6
|	Co	59	Co	**50.339**	ug/L	2.0	183.335	359480.7	1.4
|	Ni	60	Ni	**51.075**	ug/L	1.8	111.112	75625.2	1.3
|	Cu	65	Cu	**50.248**	ug/L	1.5	113.334	81382.3	1.9
|	Zn	68	Zn	**49.474**	ug/L	0.8	536.177	42334.0	0.5
|	As	75	As	**50.760**	ug/L	1.0	3114.424	68537.2	1.3
|	Se	82	Se	**49.721**	ug/L	3.4	88.890	6028.0	3.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1147183.6	0.6
⌈	Sr	88	Sr	**50.489**	ug/L	0.5	198.650	641050.5	0.6
|	Mo	95	Mo	**49.903**	ug/L	1.8	26.667	109336.8	0.7
|	Ag	107	Ag	**50.049**	ug/L	1.9	32.222	270778.0	1.4
|	Cd	114	Cd	**50.136**	ug/L	2.1	42.204	157796.6	1.0
|	Sn	118	Sn	**49.865**	ug/L	2.3	207.779	190208.0	1.3
|	Sb	121	Sb	**49.268**	ug/L	1.2	58.889	241869.2	0.4
|	Ba	137	Ba	**48.926**	ug/L	2.5	64.445	97704.1	1.4
⌊>	Rh	103	Rh		ug/L		1076837.936	1016750.4	1.1
⌈	Tl	203	Tl	**50.638**	ug/L	2.4	48.889	248968.8	1.4
|	Pb	208	Pb	**51.188**	ug/L	2.8	2197.844	816974.1	2.0
|	U	238	U	**50.965**	ug/L	3.4	13.333	901072.4	3.2
| >	Lu	175	Lu		ug/L		1052907.074	973998.2	1.1
⌊	Hg	200	Hg	**2.510**	ug/L	1.8	21.111	2911.4	0.8

Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 19, 2011 13:27:46
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.064

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	97.549	
⌊>	Li	6	Li		103.249
⌈	Al	27	Al	97.677	
|	Na	23	Na	99.758	
|	Mg	24	Mg	100.122	
|	P	31	P	95.555	
|	K	39	K	102.145	
|	Ca	44	Ca	92.441	
⌊>	Sc	45	Sc		97.408
⌈	Fe	54	Fe	101.446	
|	Ti	47	Ti	100.372	
|	V	51	V	100.400	
|	Cr	52	Cr	100.218	
|	Mn	55	Mn	100.973	
|	Co	59	Co	100.677	
|	Ni	60	Ni	102.150	
|	Cu	65	Cu	100.497	
|	Zn	68	Zn	98.948	
|	As	75	As	101.521	
|	Se	82	Se	99.442	
⌊>	Ge	74	Ge		96.258
⌈	Sr	88	Sr	100.978	
|	Mo	95	Mo	99.806	
|	Ag	107	Ag	100.098	
|	Cd	114	Cd	100.272	
|	Sn	118	Sn	99.729	
|	Sb	121	Sb	98.536	
|	Ba	137	Ba	97.851	
⌊>	Rh	103	Rh		94.420
⌈	Tl	203	Tl	101.276	
|	Pb	208	Pb	102.376	
|	U	238	U	101.931	
|>	Lu	175	Lu		92.506
⌊	Hg	200	Hg	100.386	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-11-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 13:34:30
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-11-b .066

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.007**	ug/L	206.5	7.778	13.3	75.0
⌊>	Li	6	Li		ug/L		191344.413	210201.6	2.9
⌈	Al	27	Al	**2412.625**	ug/L	1.1	12660.058	12584699.6	1.1
|	Na	23	Na	**4.110**	ug/L	7.0	33003.642	59574.0	2.0
|	Mg	24	Mg	**819.751**	ug/L	2.2	1654.541	3203022.6	1.5
|	P	31	P	**98.821**	ug/L	2.1	5192.057	39070.0	1.0
|	K	39	K	**230.804**	ug/L	0.3	483115.804	2285432.9	0.7
|	Ca	44	Ca	**122.381**	ug/L	2.4	10060.209	40812.7	2.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1499649.0	0.9
⌈	Fe	54	Fe	**29030.528**	ug/L	0.8	20353.921	16931834.5	1.1
|	Ti	47	Ti	**1.647**	ug/L	6.2	397.783	1727.9	3.9
|	V	51	V	**4.963**	ug/L	1.6	2008.119	44877.6	2.5
|	Cr	52	Cr	**0.801**	ug/L	5.4	5263.192	11134.3	2.1
|	Mn	55	Mn	**276.047**	ug/L	0.7	3160.350	3142491.2	0.2
|	Co	59	Co	**5.890**	ug/L	1.0	183.335	45077.7	0.9
|	Ni	60	Ni	**1.647**	ug/L	0.6	111.112	2714.7	1.4
|	Cu	65	Cu	**129.905**	ug/L	1.3	113.334	224421.3	0.4
|	Zn	68	Zn	**27.698**	ug/L	1.9	536.177	25545.4	1.5
|	As	75	As	**5765.104**	ug/L	1.0	3114.424	7950016.2	0.8
|	Se	82	Se	**0.282**	ug/L	38.3	88.890	127.2	9.8
⌊>	Ge	74	Ge		ug/L		1191781.780	1224798.7	0.9
⌈	Sr	88	Sr	**0.626**	ug/L	1.3	198.650	8968.6	1.3
|	Mo	95	Mo	**1.097**	ug/L	3.3	26.667	2679.1	4.1
|	Ag	107	Ag	**8.124**	ug/L	2.0	32.222	48507.8	1.3
|	Cd	114	Cd	**0.133**	ug/L	8.3	42.204	507.0	6.9
|	Sn	118	Sn	**0.340**	ug/L	6.4	207.779	1645.7	4.8
|	Sb	121	Sb	**2.972**	ug/L	2.1	58.889	16149.1	1.5
|	Ba	137	Ba	**11.228**	ug/L	2.9	64.445	24782.6	2.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1121399.8	0.8
⌈	Tl	203	Tl	**0.066**	ug/L	13.3	48.889	400.0	12.6
|	Pb	208	Pb	**340.655**	ug/L	0.3	2197.844	5901869.8	1.4
|	U	238	U	**0.052**	ug/L	9.8	13.333	1007.8	11.0
| >	Lu	175	Lu		ug/L		1052907.074	1059365.1	1.5
⌊	Hg	200	Hg	**0.238**	ug/L	17.9	21.111	318.9	15.4

Sample ID: 580-29110-a-11-b

Sample Date/Time: Wednesday, October 19, 2011 13:34:30
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-11-b .066

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		109.855
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		106.043
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		102.770
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		104.138
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.613
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-12-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 13:37:34
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-12-b .067

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.023**	ug/L	80.9	7.778	23.3	51.5
⌊>	Li	6	Li		ug/L		191344.413	204143.0	1.9
⌈	Al	27	Al	**3051.724**	ug/L	2.6	12660.058	15427334.1	1.5
|	Na	23	Na	**13.948**	ug/L	1.7	33003.642	114835.4	1.9
|	Mg	24	Mg	**904.771**	ug/L	2.6	1654.541	3426954.5	1.1
|	P	31	P	**105.343**	ug/L	3.9	5192.057	40017.1	1.2
|	K	39	K	**570.384**	ug/L	1.3	483115.804	4745023.8	1.2
|	Ca	44	Ca	**61.886**	ug/L	5.8	10060.209	25112.1	1.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1454187.2	2.4
⌈	Fe	54	Fe	**18836.028**	ug/L	2.7	20353.921	10791581.9	1.0
|	Ti	47	Ti	**1.018**	ug/L	11.6	397.783	1201.2	6.8
|	V	51	V	**3.705**	ug/L	3.2	2008.119	33400.5	1.5
|	Cr	52	Cr	**0.884**	ug/L	7.4	5263.192	11512.4	2.4
|	Mn	55	Mn	**268.049**	ug/L	4.0	3160.350	2995266.1	2.4
|	Co	59	Co	**1.571**	ug/L	3.4	183.335	11940.5	1.8
|	Ni	60	Ni	**1.988**	ug/L	0.6	111.112	3193.7	1.3
|	Cu	65	Cu	**49.893**	ug/L	1.7	113.334	84698.1	0.4
|	Zn	68	Zn	**36.391**	ug/L	1.9	536.177	32782.7	0.3
|	As	75	As	**1067.114**	ug/L	1.8	3114.424	1447297.1	0.2
|	Se	82	Se	**0.056**	ug/L	228.4	88.890	96.7	16.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1202682.5	1.7
⌈	Sr	88	Sr	**1.341**	ug/L	0.7	198.650	18807.6	0.6
|	Mo	95	Mo	**1.294**	ug/L	5.3	26.667	3127.0	4.8
|	Ag	107	Ag	**1.934**	ug/L	3.8	32.222	11466.8	3.3
|	Cd	114	Cd	**0.162**	ug/L	7.1	42.204	601.8	6.3
|	Sn	118	Sn	**0.191**	ug/L	5.5	207.779	1011.1	4.8
|	Sb	121	Sb	**0.514**	ug/L	5.2	58.889	2818.1	5.6
|	Ba	137	Ba	**17.531**	ug/L	1.1	64.445	38319.1	1.0
⌊>	Rh	103	Rh		ug/L		1076837.936	1111434.6	0.5
⌈	Tl	203	Tl	**0.086**	ug/L	4.3	48.889	502.2	4.4
|	Pb	208	Pb	**275.702**	ug/L	1.8	2197.844	4697696.8	1.1
|	U	238	U	**0.022**	ug/L	11.7	13.333	424.5	10.4
| >	Lu	175	Lu		ug/L		1052907.074	1041882.6	1.1
⌊	Hg	200	Hg	**0.231**	ug/L	3.0	21.111	305.6	2.3

Sample ID: 580-29110-a-12-b

Sample Date/Time: Wednesday, October 19, 2011 13:37:34
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-12-b .067

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		106.689
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.828
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.915
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		103.213
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		98.953
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 13:30:58
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.065

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.002**	ug/L	561.8	7.778	6.7	100.0
⌊>	Li	6	Li		ug/L		191344.413	193126.7	0.8
⌈	Al	27	Al	**0.383**	ug/L	5.2	12660.058	13971.3	0.4
|	Na	23	Na	**-2.220**	ug/L	5.0	33003.642	19670.2	2.3
|	Mg	24	Mg	**0.080**	ug/L	70.6	1654.541	1872.3	9.6
|	P	31	P	**1.397**	ug/L	25.2	5192.057	5417.7	2.4
|	K	39	K	**2.996**	ug/L	43.2	483115.804	484887.6	0.7
|	Ca	44	Ca	**-6.882**	ug/L	11.0	10060.209	8127.9	1.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1358529.7	1.1
⌈	Fe	54	Fe	**3.432**	ug/L	32.1	20353.921	21391.5	3.4
|	Ti	47	Ti	**-0.157**	ug/L	57.9	397.783	264.4	26.1
|	V	51	V	**0.072**	ug/L	318.6	2008.119	2505.1	73.4
|	Cr	52	Cr	**-0.006**	ug/L	311.9	5263.192	5008.7	3.0
|	Mn	55	Mn	**-0.103**	ug/L	1.7	3160.350	1941.2	1.3
|	Co	59	Co	**0.002**	ug/L	278.2	183.335	187.8	18.1
|	Ni	60	Ni	**0.003**	ug/L	856.2	111.112	111.1	34.5
|	Cu	65	Cu	**-0.002**	ug/L	133.9	113.334	105.6	3.6
|	Zn	68	Zn	**0.392**	ug/L	68.3	536.177	845.8	27.4
|	As	75	As	**0.135**	ug/L	83.2	3114.424	3162.1	5.2
|	Se	82	Se	**0.068**	ug/L	160.1	88.890	93.3	14.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1143142.1	0.6
⌈	Sr	88	Sr	**0.006**	ug/L	38.6	198.650	268.6	11.9
|	Mo	95	Mo	**0.046**	ug/L	41.7	26.667	127.8	34.0
|	Ag	107	Ag	**0.003**	ug/L	48.4	32.222	45.6	15.2
|	Cd	114	Cd	**-0.005**	ug/L	7.2	42.204	24.2	4.6
|	Sn	118	Sn	**0.123**	ug/L	13.2	207.779	670.0	10.0
|	Sb	121	Sb	**0.033**	ug/L	9.2	58.889	220.0	7.6
|	Ba	137	Ba	**-0.005**	ug/L	21.8	64.445	52.2	3.7
⌊>	Rh	103	Rh		ug/L		1076837.936	1024540.5	0.7
⌈	Tl	203	Tl	**0.159**	ug/L	8.0	48.889	836.7	8.8
|	Pb	208	Pb	**0.004**	ug/L	148.7	2197.844	2114.5	5.8
|	U	238	U	**0.020**	ug/L	11.0	13.333	366.7	11.6
| >	Lu	175	Lu		ug/L		1052907.074	982088.0	1.5
⌊	Hg	200	Hg	**0.015**	ug/L	31.1	21.111	36.7	15.7

Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 19, 2011 13:30:58
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.065

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		100.931
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		96.064
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		95.919
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		95.143
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		93.274
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-13-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 13:40:39
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-13-b .068

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.026**	ug/L	73.0	7.778	25.6	49.4
⌊>	Li	6	Li		ug/L		191344.413	206450.0	1.0
⌈	Al	27	Al	**1566.142**	ug/L	0.8	12660.058	7879628.9	0.5
|	Na	23	Na	**3.692**	ug/L	8.7	33003.642	55015.8	2.1
|	Mg	24	Mg	**580.739**	ug/L	1.7	1654.541	2187984.2	0.9
|	P	31	P	**98.628**	ug/L	2.2	5192.057	37599.4	0.6
|	K	39	K	**252.794**	ug/L	1.0	483115.804	2366092.1	1.4
|	Ca	44	Ca	**145.042**	ug/L	0.7	10060.209	44722.1	1.3
⌊>	Sc	45	Sc		ug/L		1414190.814	1445711.2	1.3
⌈	Fe	54	Fe	**21127.086**	ug/L	2.3	20353.921	12153379.6	2.1
|	Ti	47	Ti	**1.608**	ug/L	6.4	397.783	1672.3	4.0
|	V	51	V	**2.604**	ug/L	0.9	2008.119	24179.9	1.7
|	Cr	52	Cr	**0.532**	ug/L	5.8	5263.192	9081.8	1.6
|	Mn	55	Mn	**336.961**	ug/L	0.5	3160.350	3781212.8	0.4
|	Co	59	Co	**9.970**	ug/L	1.1	183.335	75101.4	1.9
|	Ni	60	Ni	**2.342**	ug/L	1.6	111.112	3757.2	0.9
|	Cu	65	Cu	**81.136**	ug/L	0.4	113.334	138243.5	0.6
|	Zn	68	Zn	**32.899**	ug/L	1.7	536.177	29817.1	2.5
|	As	75	As	**9004.013**	ug/L	0.7	3114.424	12239582.8	0.2
|	Se	82	Se	**0.317**	ug/L	28.6	88.890	130.0	9.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1207537.4	1.0
⌈	Sr	88	Sr	**0.299**	ug/L	3.0	198.650	4418.5	3.0
|	Mo	95	Mo	**0.376**	ug/L	2.8	26.667	942.3	1.1
|	Ag	107	Ag	**8.681**	ug/L	1.3	32.222	52135.0	0.7
|	Cd	114	Cd	**0.188**	ug/L	10.0	42.204	702.1	10.5
|	Sn	118	Sn	**0.185**	ug/L	11.6	207.779	1001.1	8.8
|	Sb	121	Sb	**5.772**	ug/L	1.7	58.889	31493.6	1.0
|	Ba	137	Ba	**5.249**	ug/L	2.2	64.445	11690.3	0.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1128119.3	1.7
⌈	Tl	203	Tl	**0.053**	ug/L	8.6	48.889	332.2	6.8
|	Pb	208	Pb	**146.814**	ug/L	2.0	2197.844	2552453.2	1.5
|	U	238	U	**0.046**	ug/L	9.5	13.333	894.5	10.0
| >	Lu	175	Lu		ug/L		1052907.074	1062605.5	0.6
⌊	Hg	200	Hg	**0.084**	ug/L	19.1	21.111	126.7	16.4

Sample ID: 580-29110-a-13-b

Sample Date/Time: Wednesday, October 19, 2011 13:40:39
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-13-b .068

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		107.894
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.229
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.322
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		104.762
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.921
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-16-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 13:43:44
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-16-b .069

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.099**	ug/L	8.7	7.778	73.3	9.1
⌊>	Li	6	Li		ug/L		191344.413	207585.4	1.7
⌈	Al	27	Al	**2016.430**	ug/L	0.3	12660.058	10249978.1	0.6
|	Na	23	Na	**8.168**	ug/L	8.6	33003.642	81687.6	4.4
|	Mg	24	Mg	**584.077**	ug/L	1.4	1654.541	2224085.4	0.5
|	P	31	P	**114.019**	ug/L	0.9	5192.057	43100.5	1.3
|	K	39	K	**171.444**	ug/L	0.5	483115.804	1782419.0	1.0
|	Ca	44	Ca	**860.298**	ug/L	1.6	10060.209	216831.2	1.5
⌊>	Sc	45	Sc		ug/L		1414190.814	1461109.9	0.9
⌈	Fe	54	Fe	**9915.082**	ug/L	0.8	20353.921	5701755.2	1.1
|	Ti	47	Ti	**31.636**	ug/L	3.2	397.783	25324.7	1.8
|	V	51	V	**5.765**	ug/L	0.7	2008.119	50941.9	1.2
|	Cr	52	Cr	**0.852**	ug/L	6.9	5263.192	11304.5	2.6
|	Mn	55	Mn	**997.029**	ug/L	1.5	3160.350	11155496.5	0.6
|	Co	59	Co	**4.430**	ug/L	2.3	183.335	33390.1	1.2
|	Ni	60	Ni	**3.952**	ug/L	1.5	111.112	6250.3	2.8
|	Cu	65	Cu	**27.779**	ug/L	1.2	113.334	47297.1	1.1
|	Zn	68	Zn	**293.123**	ug/L	1.3	536.177	260729.2	1.0
|	As	75	As	**393.956**	ug/L	1.4	3114.424	537274.5	0.1
|	Se	82	Se	**0.071**	ug/L	116.9	88.890	98.9	11.8
⌊>	Ge	74	Ge		ug/L		1191781.780	1204788.7	1.3
⌈	Sr	88	Sr	**2.066**	ug/L	0.9	198.650	29137.5	1.0
|	Mo	95	Mo	**0.239**	ug/L	8.0	26.667	605.6	6.4
|	Ag	107	Ag	**1.212**	ug/L	2.7	32.222	7267.4	3.8
|	Cd	114	Cd	**2.030**	ug/L	2.5	42.204	7089.3	2.0
|	Sn	118	Sn	**0.079**	ug/L	16.7	207.779	548.9	9.4
|	Sb	121	Sb	**5.432**	ug/L	0.9	58.889	29473.7	1.1
|	Ba	137	Ba	**5.078**	ug/L	3.0	64.445	11245.5	1.9
⌊>	Rh	103	Rh		ug/L		1076837.936	1121665.7	1.5
⌈	Tl	203	Tl	**0.070**	ug/L	17.4	48.889	426.7	15.2
|	Pb	208	Pb	**194.566**	ug/L	0.4	2197.844	3380482.6	1.2
|	U	238	U	**0.045**	ug/L	1.4	13.333	872.2	2.1
| >	Lu	175	Lu		ug/L		1052907.074	1062076.0	1.1
⌊	Hg	200	Hg	**0.040**	ug/L	12.9	21.111	71.1	9.8

Sample ID: 580-29110-a-16-b

Sample Date/Time: Wednesday, October 19, 2011 13:43:44
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-16-b .069

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		108.488
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.318
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.091
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		104.163
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		100.871
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-17-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 13:46:50
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-17-b .070

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.090**	ug/L	13.4	7.778	67.8	11.4
⌊>	Li	6	Li		ug/L		191344.413	208665.5	1.9
⌈	Al	27	Al	**1889.816**	ug/L	2.7	12660.058	9626157.8	0.7
|	Na	23	Na	**8.788**	ug/L	9.0	33003.642	85473.0	4.2
|	Mg	24	Mg	**578.857**	ug/L	1.9	1654.541	2208972.8	0.2
|	P	31	P	**112.501**	ug/L	3.9	5192.057	42679.2	1.8
|	K	39	K	**187.092**	ug/L	2.8	483115.804	1903621.1	1.7
|	Ca	44	Ca	**790.165**	ug/L	1.0	10060.209	200448.9	1.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1464514.9	2.1
⌈	Fe	54	Fe	**9691.570**	ug/L	0.3	20353.921	5574630.7	0.7
|	Ti	47	Ti	**31.623**	ug/L	2.4	397.783	25323.5	2.0
|	V	51	V	**5.543**	ug/L	0.8	2008.119	49070.5	1.0
|	Cr	52	Cr	**0.819**	ug/L	3.3	5263.192	11078.7	1.7
|	Mn	55	Mn	**789.822**	ug/L	0.8	3160.350	8840010.1	1.2
|	Co	59	Co	**4.171**	ug/L	2.8	183.335	31457.9	2.4
|	Ni	60	Ni	**3.006**	ug/L	1.8	111.112	4780.8	2.2
|	Cu	65	Cu	**27.158**	ug/L	1.4	113.334	46249.2	1.0
|	Zn	68	Zn	**274.487**	ug/L	1.0	536.177	244241.5	1.4
|	As	75	As	**510.532**	ug/L	0.7	3114.424	695482.8	0.3
|	Se	82	Se	**0.165**	ug/L	86.2	88.890	110.6	16.1
⌊>	Ge	74	Ge		ug/L		1191781.780	1204930.1	0.5
⌈	Sr	88	Sr	**1.775**	ug/L	1.1	198.650	25307.6	0.3
|	Mo	95	Mo	**0.201**	ug/L	6.4	26.667	520.0	6.5
|	Ag	107	Ag	**2.584**	ug/L	1.8	32.222	15609.6	1.5
|	Cd	114	Cd	**1.442**	ug/L	1.3	42.204	5102.7	1.5
|	Sn	118	Sn	**0.089**	ug/L	8.4	207.779	597.8	5.8
|	Sb	121	Sb	**6.118**	ug/L	2.4	58.889	33521.5	1.9
|	Ba	137	Ba	**4.670**	ug/L	3.1	64.445	10453.8	2.8
⌊>	Rh	103	Rh		ug/L		1076837.936	1132935.4	0.7
⌈	Tl	203	Tl	**0.065**	ug/L	6.4	48.889	401.1	5.5
|	Pb	208	Pb	**601.269**	ug/L	1.3	2197.844	10563947.0	1.3
|	U	238	U	**0.045**	ug/L	6.1	13.333	882.2	6.0
| >	Lu	175	Lu		ug/L		1052907.074	1074465.5	0.1
⌊	Hg	200	Hg	**0.093**	ug/L	20.4	21.111	140.0	17.2

Sample ID: 580-29110-a-17-b

Sample Date/Time: Wednesday, October 19, 2011 13:46:50
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-17-b .070

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		109.052
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.559
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.103
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		105.209
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		102.048
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-11-b

Sample Description: 1000X
Sample Date/Time: Wednesday, October 19, 2011 13:49:57
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-11-b .071

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.006**	ug/L	98.7	7.778	4.4	86.6
⌊>	Li	6	Li		ug/L		191344.413	202198.2	2.6
⌈	Al	27	Al	**245.001**	ug/L	2.0	12660.058	1190269.2	1.5
|	Na	23	Na	**-0.558**	ug/L	13.4	33003.642	29212.1	1.0
|	Mg	24	Mg	**81.374**	ug/L	2.3	1654.541	294847.8	1.8
|	P	31	P	**8.686**	ug/L	14.8	5192.057	7802.1	5.0
|	K	39	K	**24.174**	ug/L	2.4	483115.804	644066.5	0.2
|	Ca	44	Ca	**3.377**	ug/L	15.0	10060.209	10610.6	0.5
⌊>	Sc	45	Sc		ug/L		1414190.814	1383746.4	0.6
⌈	Fe	54	Fe	**2524.679**	ug/L	0.9	20353.921	1418854.3	1.3
|	Ti	47	Ti	**-0.049**	ug/L	164.8	397.783	351.1	17.1
|	V	51	V	**0.403**	ug/L	42.6	2008.119	5265.8	26.4
|	Cr	52	Cr	**0.006**	ug/L	330.2	5263.192	5184.3	2.9
|	Mn	55	Mn	**25.419**	ug/L	1.0	3160.350	278064.7	1.0
|	Co	59	Co	**0.569**	ug/L	2.6	183.335	4304.0	2.0
|	Ni	60	Ni	**0.200**	ug/L	12.5	111.112	408.9	8.7
|	Cu	65	Cu	**12.654**	ug/L	0.8	113.334	20895.3	0.7
|	Zn	68	Zn	**2.725**	ug/L	6.6	536.177	2863.3	5.6
|	As	75	As	**479.813**	ug/L	0.5	3114.424	632181.2	0.5
|	Se	82	Se	**0.026**	ug/L	407.5	88.890	90.0	14.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1165033.2	0.5
⌈	Sr	88	Sr	**0.061**	ug/L	6.0	198.650	1018.7	4.1
|	Mo	95	Mo	**0.107**	ug/L	14.4	26.667	274.4	14.1
|	Ag	107	Ag	**0.780**	ug/L	5.1	32.222	4478.5	3.7
|	Cd	114	Cd	**0.010**	ug/L	25.9	42.204	75.6	10.7
|	Sn	118	Sn	**0.031**	ug/L	64.1	207.779	331.1	24.6
|	Sb	121	Sb	**0.297**	ug/L	1.8	58.889	1595.6	1.1
|	Ba	137	Ba	**1.052**	ug/L	5.0	64.445	2279.1	4.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1072264.4	1.3
⌈	Tl	203	Tl	**0.013**	ug/L	40.6	48.889	114.4	23.5
|	Pb	208	Pb	**30.754**	ug/L	1.0	2197.844	504836.6	1.2
|	U	238	U	**0.006**	ug/L	13.3	13.333	118.9	11.3
| >	Lu	175	Lu		ug/L		1052907.074	1000051.7	1.7
⌊	Hg	200	Hg	**0.016**	ug/L	64.4	21.111	38.9	30.1

Sample ID: 580-29110-a-11-b

Sample Date/Time: Wednesday, October 19, 2011 13:49:57
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-11-b .071

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		105.672
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		97.847
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		97.756
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.575
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		94.980
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-13-b

Sample Description: 1000X
Sample Date/Time: Wednesday, October 19, 2011 13:56:10
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-13-b .073

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.006**	ug/L	52.3	7.778	4.4	43.3
⌊>	Li	6	Li		ug/L		191344.413	202322.9	1.7
⌈	Al	27	Al	**163.095**	ug/L	2.6	12660.058	803507.5	2.4
|	Na	23	Na	**-0.858**	ug/L	2.7	33003.642	27800.4	0.7
|	Mg	24	Mg	**56.168**	ug/L	0.8	1654.541	205822.1	0.6
|	P	31	P	**8.469**	ug/L	15.4	5192.057	7802.1	5.1
|	K	39	K	**25.775**	ug/L	4.3	483115.804	661172.0	1.1
|	Ca	44	Ca	**6.258**	ug/L	7.6	10060.209	11364.5	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1395880.4	0.2
⌈	Fe	54	Fe	**1933.661**	ug/L	1.4	20353.921	1094881.8	1.5
|	Ti	47	Ti	**-0.122**	ug/L	7.7	397.783	296.7	2.2
|	V	51	V	**0.363**	ug/L	12.9	2008.119	4956.7	7.8
|	Cr	52	Cr	**0.007**	ug/L	395.3	5263.192	5209.8	3.5
|	Mn	55	Mn	**31.573**	ug/L	1.8	3160.350	345746.9	1.6
|	Co	59	Co	**1.005**	ug/L	1.8	183.335	7492.0	1.7
|	Ni	60	Ni	**0.214**	ug/L	13.8	111.112	431.1	10.5
|	Cu	65	Cu	**8.167**	ug/L	1.2	113.334	13568.7	1.2
|	Zn	68	Zn	**3.471**	ug/L	4.4	536.177	3515.2	3.7
|	As	75	As	**757.160**	ug/L	0.7	3114.424	999063.2	0.5
|	Se	82	Se	**0.046**	ug/L	179.3	88.890	92.8	11.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1168802.0	0.2
⌈	Sr	88	Sr	**0.030**	ug/L	10.5	198.650	595.7	8.3
|	Mo	95	Mo	**0.034**	ug/L	27.6	26.667	104.4	19.5
|	Ag	107	Ag	**0.851**	ug/L	1.6	32.222	4833.0	2.4
|	Cd	114	Cd	**0.021**	ug/L	19.1	42.204	111.4	10.9
|	Sn	118	Sn	**0.029**	ug/L	30.4	207.779	318.9	12.1
|	Sb	121	Sb	**0.594**	ug/L	3.8	58.889	3095.9	2.6
|	Ba	137	Ba	**0.573**	ug/L	4.4	64.445	1256.7	5.3
⌊>	Rh	103	Rh		ug/L		1076837.936	1060329.3	1.2
⌈	Tl	203	Tl	**0.019**	ug/L	15.8	48.889	142.2	10.8
|	Pb	208	Pb	**15.798**	ug/L	2.1	2197.844	261712.7	1.4
|	U	238	U	**0.004**	ug/L	1.5	13.333	93.3	0.0
| >	Lu	175	Lu		ug/L		1052907.074	1005330.8	1.3
⌊	Hg	200	Hg	**-0.000**	ug/L	4083.1	21.111	20.0	50.0

Sample ID: 580-29110-a-13-b

Sample Date/Time: Wednesday, October 19, 2011 13:56:10
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-13-b .073

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		105.738
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.705
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		98.072
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		98.467
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		95.481
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 14:05:35
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.076

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**48.240**	ug/L	3.0	7.778	29549.4	1.2
⌊>	Li	6	Li		ug/L		191344.413	194376.0	2.1
⌈	Al	27	Al	**493.819**	ug/L	1.2	12660.058	2293445.9	1.7
|	Na	23	Na	**5077.699**	ug/L	1.9	33003.642	26962651.9	1.6
|	Mg	24	Mg	**5141.046**	ug/L	1.7	1654.541	17802161.0	0.0
|	P	31	P	**4831.465**	ug/L	0.4	5192.057	1460163.4	1.9
|	K	39	K	**5233.948**	ug/L	2.1	483115.804	36100199.7	0.5
|	Ca	44	Ca	**4678.379**	ug/L	1.3	10060.209	1031051.4	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1329753.0	1.8
⌈	Fe	54	Fe	**5123.279**	ug/L	0.8	20353.921	2765259.3	1.1
|	Ti	47	Ti	**50.169**	ug/L	2.4	397.783	37354.3	2.3
|	V	51	V	**50.011**	ug/L	1.8	2008.119	398809.3	1.4
|	Cr	52	Cr	**50.189**	ug/L	0.5	5263.192	335041.4	1.1
|	Mn	55	Mn	**50.709**	ug/L	0.7	3160.350	533601.1	0.8
|	Co	59	Co	**50.385**	ug/L	1.6	183.335	353465.3	1.1
|	Ni	60	Ni	**50.143**	ug/L	1.6	111.112	72943.6	1.8
|	Cu	65	Cu	**49.506**	ug/L	1.6	113.334	78759.9	1.0
|	Zn	68	Zn	**50.333**	ug/L	0.4	536.177	42301.8	0.9
|	As	75	As	**50.591**	ug/L	1.0	3114.424	67109.8	0.6
|	Se	82	Se	**50.695**	ug/L	1.4	88.890	6036.3	1.6
⌊>	Ge	74	Ge		ug/L		1191781.780	1126946.4	0.7
⌈	Sr	88	Sr	**50.640**	ug/L	0.7	198.650	641013.6	0.4
|	Mo	95	Mo	**49.347**	ug/L	1.0	26.667	107799.7	0.6
|	Ag	107	Ag	**49.576**	ug/L	0.5	32.222	267430.0	0.7
|	Cd	114	Cd	**49.790**	ug/L	1.8	42.204	156243.7	1.1
|	Sn	118	Sn	**49.240**	ug/L	2.4	207.779	187272.0	1.8
|	Sb	121	Sb	**49.685**	ug/L	1.1	58.889	243183.5	0.4
|	Ba	137	Ba	**49.505**	ug/L	1.4	64.445	98575.6	1.2
⌊>	Rh	103	Rh		ug/L		1076837.936	1013671.3	0.7
⌈	Tl	203	Tl	**49.603**	ug/L	2.9	48.889	242500.1	1.4
|	Pb	208	Pb	**50.942**	ug/L	2.6	2197.844	808447.5	0.1
|	U	238	U	**50.971**	ug/L	2.3	13.333	896188.9	2.4
| >	Lu	175	Lu		ug/L		1052907.074	968727.2	2.5
⌊	Hg	200	Hg	**2.550**	ug/L	4.3	21.111	2943.6	6.4

Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 19, 2011 14:05:35
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.076

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	96.480	
⌊>	Li	6	Li		101.584
⌈	Al	27	Al	98.764	
|	Na	23	Na	101.554	
|	Mg	24	Mg	102.821	
|	P	31	P	96.629	
|	K	39	K	104.679	
|	Ca	44	Ca	93.568	
⌊>	Sc	45	Sc		94.029
⌈	Fe	54	Fe	102.466	
|	Ti	47	Ti	100.337	
|	V	51	V	100.022	
|	Cr	52	Cr	100.378	
|	Mn	55	Mn	101.417	
|	Co	59	Co	100.769	
|	Ni	60	Ni	100.287	
|	Cu	65	Cu	99.013	
|	Zn	68	Zn	100.666	
|	As	75	As	101.181	
|	Se	82	Se	101.390	
⌊>	Ge	74	Ge		94.560
⌈	Sr	88	Sr	101.279	
|	Mo	95	Mo	98.693	
|	Ag	107	Ag	99.152	
|	Cd	114	Cd	99.579	
|	Sn	118	Sn	98.480	
|	Sb	121	Sb	99.370	
|	Ba	137	Ba	99.010	
⌊>	Rh	103	Rh		94.134
⌈	Tl	203	Tl	99.205	
|	Pb	208	Pb	101.885	
|	U	238	U	101.942	
| >	Lu	175	Lu		92.005
⌊	Hg	200	Hg	101.988	

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 14:08:45
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.077

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.002**	ug/L	251.5	7.778	6.7	50.0
⌊>	Li	6	Li		ug/L		191344.413	195682.7	2.3
⌈	Al	27	Al	**0.419**	ug/L	34.4	12660.058	13747.7	4.9
|	Na	23	Na	**-2.369**	ug/L	6.4	33003.642	18338.4	3.6
|	Mg	24	Mg	**0.106**	ug/L	47.5	1654.541	1910.1	9.2
|	P	31	P	**0.630**	ug/L	40.6	5192.057	5038.7	2.3
|	K	39	K	**4.913**	ug/L	10.6	483115.804	484493.1	0.1
|	Ca	44	Ca	**-7.566**	ug/L	5.0	10060.209	7755.4	1.3
⌊>	Sc	45	Sc		ug/L		1414190.814	1320954.5	0.8
⌈	Fe	54	Fe	**3.134**	ug/L	56.4	20353.921	20870.5	5.0
|	Ti	47	Ti	**-0.182**	ug/L	6.2	397.783	241.1	3.5
|	V	51	V	**-0.151**	ug/L	111.9	2008.119	696.6	191.1
|	Cr	52	Cr	**-0.004**	ug/L	478.2	5263.192	4938.6	2.3
|	Mn	55	Mn	**-0.088**	ug/L	5.6	3160.350	2056.8	3.0
|	Co	59	Co	**-0.002**	ug/L	114.9	183.335	160.0	9.5
|	Ni	60	Ni	**-0.009**	ug/L	255.0	111.112	91.1	38.8
|	Cu	65	Cu	**-0.015**	ug/L	27.0	113.334	83.3	8.0
|	Zn	68	Zn	**0.208**	ug/L	42.2	536.177	677.8	10.5
|	As	75	As	**0.128**	ug/L	35.7	3114.424	3098.6	1.8
|	Se	82	Se	**-0.061**	ug/L	221.0	88.890	76.7	20.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1123777.2	0.5
⌈	Sr	88	Sr	**0.004**	ug/L	65.1	198.650	239.0	13.4
|	Mo	95	Mo	**0.043**	ug/L	18.3	26.667	118.9	14.4
|	Ag	107	Ag	**0.004**	ug/L	92.3	32.222	54.4	40.8
|	Cd	114	Cd	**-0.001**	ug/L	257.5	42.204	35.5	33.2
|	Sn	118	Sn	**0.133**	ug/L	21.8	207.779	705.6	15.8
|	Sb	121	Sb	**0.033**	ug/L	17.3	58.889	218.9	12.8
|	Ba	137	Ba	**0.004**	ug/L	174.7	64.445	68.9	19.6
⌊>	Rh	103	Rh		ug/L		1076837.936	1021101.7	0.4
⌈	Tl	203	Tl	**0.162**	ug/L	25.0	48.889	835.6	22.1
|	Pb	208	Pb	**0.004**	ug/L	62.3	2197.844	2083.4	1.6
|	U	238	U	**0.023**	ug/L	7.0	13.333	411.1	5.9
| >	Lu	175	Lu		ug/L		1052907.074	968288.6	1.5
⌊	Hg	200	Hg	**0.013**	ug/L	77.0	21.111	34.4	34.0

Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 19, 2011 14:08:45
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.077

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.267
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		93.407
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		94.294
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		94.824
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		91.963
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: MB

Sample Description: 10X
Sample Date/Time: Wednesday, October 19, 2011 14:11:55
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\MB.078

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.007**	ug/L	126.9	7.778	3.3	173.2
⌊>	Li	6	Li		ug/L		191344.413	193206.5	3.3
⌈	Al	27	Al	**10.044**	ug/L	1.0	12660.058	58784.0	1.3
|	Na	23	Na	**-2.184**	ug/L	4.3	33003.642	19602.3	2.1
|	Mg	24	Mg	**0.009**	ug/L	319.1	1654.541	1600.1	6.2
|	P	31	P	**0.274**	ug/L	574.1	5192.057	5004.2	9.5
|	K	39	K	**4.924**	ug/L	18.3	483115.804	491719.6	0.6
|	Ca	44	Ca	**-5.367**	ug/L	14.7	10060.209	8353.6	1.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1340470.0	0.7
⌈	Fe	54	Fe	**1.135**	ug/L	76.2	20353.921	19971.4	1.6
|	Ti	47	Ti	**-0.191**	ug/L	24.2	397.783	236.7	13.6
|	V	51	V	**0.032**	ug/L	385.9	2008.119	2163.4	45.4
|	Cr	52	Cr	**0.002**	ug/L	1888.5	5263.192	5016.4	3.1
|	Mn	55	Mn	**-0.087**	ug/L	6.8	3160.350	2089.0	1.8
|	Co	59	Co	**0.001**	ug/L	575.2	183.335	181.1	21.3
|	Ni	60	Ni	**-0.002**	ug/L	511.3	111.112	102.2	15.4
|	Cu	65	Cu	**-0.017**	ug/L	10.9	113.334	81.1	4.7
|	Zn	68	Zn	**1.526**	ug/L	8.0	536.177	1785.6	6.8
|	As	75	As	**0.048**	ug/L	191.6	3114.424	3023.7	4.4
|	Se	82	Se	**-0.029**	ug/L	263.6	88.890	81.1	9.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1133738.7	1.2
⌈	Sr	88	Sr	**0.003**	ug/L	24.6	198.650	225.5	4.1
|	Mo	95	Mo	**0.004**	ug/L	92.2	26.667	34.4	24.4
|	Ag	107	Ag	**0.000**	ug/L	1492.0	32.222	31.1	27.0
|	Cd	114	Cd	**-0.002**	ug/L	14.6	42.204	32.3	3.6
|	Sn	118	Sn	**0.023**	ug/L	49.3	207.779	286.7	15.3
|	Sb	121	Sb	**0.010**	ug/L	74.2	58.889	103.3	34.1
|	Ba	137	Ba	**0.001**	ug/L	355.3	64.445	62.2	6.2
⌊>	Rh	103	Rh		ug/L		1076837.936	1021132.3	0.2
⌈	Tl	203	Tl	**0.054**	ug/L	11.9	48.889	308.9	10.3
|	Pb	208	Pb	**0.006**	ug/L	96.7	2197.844	2107.8	3.8
|	U	238	U	**0.007**	ug/L	30.1	13.333	131.1	27.2
| >	Lu	175	Lu		ug/L		1052907.074	967364.9	0.3
⌊	Hg	200	Hg	**-0.001**	ug/L	242.1	21.111	17.8	21.7

Sample ID: MB

Sample Date/Time: Wednesday, October 19, 2011 14:11:55
Dataset File: C:\elandata\DataSet\101811AM\MB.078

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		100.973
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		94.787
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		95.130
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		94.827
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		91.876
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-18-e SD

Sample Description: 250X
Sample Date/Time: Wednesday, October 19, 2011 14:15:04
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-e SD.079

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.014**	ug/L	132.7	7.778	16.7	69.3
⌊>	Li	6	Li		ug/L		191344.413	197030.7	1.5
⌈	Al	27	Al	**777.586**	ug/L	1.8	12660.058	3722089.3	0.7
|	Na	23	Na	**27.001**	ug/L	2.5	33003.642	179937.3	1.0
|	Mg	24	Mg	**399.163**	ug/L	0.3	1654.541	1429170.9	1.1
|	P	31	P	**44.767**	ug/L	4.7	5192.057	18962.6	2.6
|	K	39	K	**137.618**	ug/L	0.4	483115.804	1437267.1	1.2
|	Ca	44	Ca	**142.368**	ug/L	1.5	10060.209	41875.7	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1373249.6	1.2
⌈	Fe	54	Fe	**4842.876**	ug/L	0.9	20353.921	2698144.5	1.3
|	Ti	47	Ti	**14.709**	ug/L	1.8	397.783	11574.7	1.8
|	V	51	V	**4.703**	ug/L	3.8	2008.119	40475.9	3.6
|	Cr	52	Cr	**0.675**	ug/L	3.3	5263.192	9718.9	2.0
|	Mn	55	Mn	**803.740**	ug/L	1.6	3160.350	8680700.7	1.5
|	Co	59	Co	**2.847**	ug/L	1.1	183.335	20780.7	0.7
|	Ni	60	Ni	**0.788**	ug/L	7.5	111.112	1290.1	7.0
|	Cu	65	Cu	**18.110**	ug/L	1.3	113.334	29799.9	1.4
|	Zn	68	Zn	**71.132**	ug/L	1.8	536.177	61462.5	1.3
|	As	75	As	**101.960**	ug/L	1.1	3114.424	136468.0	0.8
|	Se	82	Se	**-0.010**	ug/L	1615.0	88.890	85.6	21.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1162768.3	0.4
⌈	Sr	88	Sr	**0.681**	ug/L	1.9	198.650	8972.1	2.9
|	Mo	95	Mo	**0.159**	ug/L	9.1	26.667	378.9	7.3
|	Ag	107	Ag	**0.220**	ug/L	5.6	32.222	1238.9	5.1
|	Cd	114	Cd	**0.733**	ug/L	5.3	42.204	2383.8	5.3
|	Sn	118	Sn	**0.063**	ug/L	16.7	207.779	444.5	8.7
|	Sb	121	Sb	**2.354**	ug/L	3.4	58.889	11796.0	2.3
|	Ba	137	Ba	**3.866**	ug/L	5.1	64.445	7901.1	3.9
⌊>	Rh	103	Rh		ug/L		1076837.936	1033176.6	1.1
⌈	Tl	203	Tl	**0.061**	ug/L	6.5	48.889	346.7	7.3
|	Pb	208	Pb	**33.982**	ug/L	1.9	2197.844	548740.8	0.6
|	U	238	U	**0.081**	ug/L	7.4	13.333	1466.7	9.0
| >	Lu	175	Lu		ug/L		1052907.074	984261.6	1.7
⌊	Hg	200	Hg	**0.070**	ug/L	26.2	21.111	101.1	19.3

Sample ID: 580-29110-a-18-e SD

Sample Date/Time: Wednesday, October 19, 2011 14:15:04
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-e SD.079

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.972
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		97.105
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		97.566
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		95.945
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		93.480
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-18-e

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 14:18:13
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-e .080

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.070**	ug/L	23.2	7.778	52.2	18.4
⌊>	Li	6	Li		ug/L		191344.413	199467.5	1.4
⌈	Al	27	Al	**3563.487**	ug/L	0.9	12660.058	18098542.9	0.5
|	Na	23	Na	**129.196**	ug/L	1.1	33003.642	786905.0	1.3
|	Mg	24	Mg	**1972.490**	ug/L	1.3	1654.541	7505158.7	1.1
|	P	31	P	**211.165**	ug/L	1.5	5192.057	75227.6	1.2
|	K	39	K	**686.162**	ug/L	0.3	483115.804	5633504.6	0.7
|	Ca	44	Ca	**690.737**	ug/L	0.5	10060.209	176094.2	0.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1460682.3	0.4
⌈	Fe	54	Fe	**23572.285**	ug/L	0.5	20353.921	13411076.0	0.6
|	Ti	47	Ti	**72.142**	ug/L	1.1	397.783	56758.1	1.2
|	V	51	V	**22.599**	ug/L	1.4	2008.119	192114.9	1.3
|	Cr	52	Cr	**3.344**	ug/L	1.8	5263.192	28580.8	1.3
|	Mn	55	Mn	**3897.661**	ug/L	0.5	3160.350	43230013.4	0.7
|	Co	59	Co	**13.755**	ug/L	1.1	183.335	102412.5	0.9
|	Ni	60	Ni	**3.799**	ug/L	4.2	111.112	5960.1	3.9
|	Cu	65	Cu	**86.563**	ug/L	1.5	113.334	145882.3	1.6
|	Zn	68	Zn	**346.237**	ug/L	0.3	536.177	305245.8	0.3
|	As	75	As	**490.928**	ug/L	0.3	3114.424	663064.7	0.4
|	Se	82	Se	**0.043**	ug/L	91.9	88.890	94.4	5.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1194399.7	0.2
⌈	Sr	88	Sr	**3.244**	ug/L	0.7	198.650	43360.1	1.2
|	Mo	95	Mo	**0.693**	ug/L	5.8	26.667	1617.9	5.0
|	Ag	107	Ag	**1.053**	ug/L	1.2	32.222	6006.8	2.1
|	Cd	114	Cd	**3.595**	ug/L	4.8	42.204	11898.2	3.9
|	Sn	118	Sn	**0.261**	ug/L	4.3	207.779	1247.8	2.7
|	Sb	121	Sb	**11.796**	ug/L	2.0	58.889	60754.5	1.4
|	Ba	137	Ba	**18.809**	ug/L	1.4	64.445	39419.9	0.4
⌊>	Rh	103	Rh		ug/L		1076837.936	1065906.4	1.0
⌈	Tl	203	Tl	**0.122**	ug/L	3.7	48.889	675.6	3.7
|	Pb	208	Pb	**156.311**	ug/L	0.9	2197.844	2618208.2	0.8
|	U	238	U	**0.378**	ug/L	3.7	13.333	7038.4	2.8
| >	Lu	175	Lu		ug/L		1052907.074	1023769.8	0.9
⌊	Hg	200	Hg	**0.341**	ug/L	0.7	21.111	433.3	1.5

Sample ID: 580-29110-a-18-e

Sample Date/Time: Wednesday, October 19, 2011 14:18:13
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-e .080

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		104.245
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.287
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.220
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		98.985
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		97.233
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-18-f du

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 14:21:23
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-f du .081

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.069**	ug/L	26.6	7.778	51.1	21.0
⌊>	Li	6	Li		ug/L		191344.413	198218.2	1.7
⌈	Al	27	Al	**3724.393**	ug/L	1.7	12660.058	18958250.0	0.4
|	Na	23	Na	**130.450**	ug/L	0.6	33003.642	796104.8	1.4
|	Mg	24	Mg	**2045.726**	ug/L	1.6	1654.541	7801494.1	0.3
|	P	31	P	**213.324**	ug/L	2.0	5192.057	76114.5	0.8
|	K	39	K	**698.674**	ug/L	0.8	483115.804	5740852.7	1.6
|	Ca	44	Ca	**709.485**	ug/L	1.3	10060.209	181009.6	0.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1464194.5	1.4
⌈	Fe	54	Fe	**24077.891**	ug/L	0.5	20353.921	13707887.6	1.6
|	Ti	47	Ti	**74.680**	ug/L	1.8	397.783	58787.4	2.9
|	V	51	V	**23.198**	ug/L	1.8	2008.119	197290.5	2.3
|	Cr	52	Cr	**3.381**	ug/L	1.7	5263.192	28858.0	1.3
|	Mn	55	Mn	**3932.328**	ug/L	0.7	3160.350	43643091.8	1.2
|	Co	59	Co	**13.915**	ug/L	0.7	183.335	103667.0	1.2
|	Ni	60	Ni	**3.945**	ug/L	5.1	111.112	6186.9	3.8
|	Cu	65	Cu	**88.310**	ug/L	1.1	113.334	148928.0	1.8
|	Zn	68	Zn	**351.259**	ug/L	0.7	536.177	309857.9	0.6
|	As	75	As	**496.604**	ug/L	0.8	3114.424	671104.3	0.5
|	Se	82	Se	**0.065**	ug/L	161.9	88.890	97.2	13.1
⌊>	Ge	74	Ge		ug/L		1191781.780	1195214.6	1.3
⌈	Sr	88	Sr	**3.314**	ug/L	2.9	198.650	44759.4	2.0
|	Mo	95	Mo	**0.707**	ug/L	5.1	26.667	1667.9	5.1
|	Ag	107	Ag	**1.072**	ug/L	2.6	32.222	6179.1	3.5
|	Cd	114	Cd	**3.642**	ug/L	2.0	42.204	12184.1	1.5
|	Sn	118	Sn	**0.256**	ug/L	1.1	207.779	1243.4	1.0
|	Sb	121	Sb	**11.903**	ug/L	1.9	58.889	61959.6	1.2
|	Ba	137	Ba	**18.859**	ug/L	2.6	64.445	39945.8	1.8
⌊>	Rh	103	Rh		ug/L		1076837.936	1077311.5	0.9
⌈	Tl	203	Tl	**0.126**	ug/L	4.7	48.889	690.0	4.0
|	Pb	208	Pb	**160.913**	ug/L	1.0	2197.844	2668927.6	1.5
|	U	238	U	**0.390**	ug/L	1.2	13.333	7182.9	0.5
| >	Lu	175	Lu		ug/L		1052907.074	1013719.0	0.7
⌊	Hg	200	Hg	**0.327**	ug/L	13.5	21.111	412.2	12.2

Sample ID: 580-29110-a-18-f du

Sample Date/Time: Wednesday, October 19, 2011 14:21:23
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-f du .081

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.592
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		103.536
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.288
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.044
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		96.278
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-18-g ms

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 14:24:30
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-g ms .082

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**1.977**	ug/L	8.7	7.778	1382.3	7.9
⌊>	Li	6	Li		ug/L		191344.413	220539.4	1.2
⌈	Al	27	Al	**4436.078**	ug/L	1.3	12660.058	24860026.6	1.3
|	Na	23	Na	**609.786**	ug/L	1.3	33003.642	3959022.0	2.1
|	Mg	24	Mg	**2578.599**	ug/L	1.6	1654.541	10825942.7	0.2
|	P	31	P	**568.870**	ug/L	0.7	5192.057	213627.8	1.1
|	K	39	K	**985.823**	ug/L	1.8	483115.804	8691246.9	1.7
|	Ca	44	Ca	**1373.217**	ug/L	2.2	10060.209	374957.3	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1612064.1	1.7
⌈	Fe	54	Fe	**24624.932**	ug/L	0.5	20353.921	15381978.0	0.8
|	Ti	47	Ti	**157.659**	ug/L	2.0	397.783	135667.9	1.6
|	V	51	V	**43.015**	ug/L	1.0	2008.119	399508.4	0.8
|	Cr	52	Cr	**11.072**	ug/L	1.1	5263.192	90525.9	0.9
|	Mn	55	Mn	**4508.739**	ug/L	1.1	3160.350	54906262.9	0.9
|	Co	59	Co	**33.775**	ug/L	2.0	183.335	275814.3	1.8
|	Ni	60	Ni	**23.723**	ug/L	1.3	111.112	40222.1	1.1
|	Cu	65	Cu	**103.910**	ug/L	0.8	113.334	192249.4	0.7
|	Zn	68	Zn	**369.872**	ug/L	0.8	536.177	357993.0	0.7
|	As	75	As	**486.602**	ug/L	0.8	3114.424	721645.0	0.6
|	Se	82	Se	**74.246**	ug/L	1.6	88.890	10242.1	1.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1311443.0	0.4
⌈	Sr	88	Sr	**5.060**	ug/L	1.6	198.650	75280.4	0.6
|	Mo	95	Mo	**92.741**	ug/L	0.9	26.667	237463.0	0.8
|	Ag	107	Ag	**12.802**	ug/L	1.3	32.222	80975.5	1.2
|	Cd	114	Cd	**5.947**	ug/L	2.5	42.204	21923.1	3.6
|	Sn	118	Sn	**92.229**	ug/L	1.5	207.779	411018.8	1.6
|	Sb	121	Sb	**40.711**	ug/L	1.6	58.889	233580.8	0.6
|	Ba	137	Ba	**94.976**	ug/L	0.9	64.445	221644.3	1.8
⌊>	Rh	103	Rh		ug/L		1076837.936	1188278.8	1.2
⌈	Tl	203	Tl	**75.998**	ug/L	1.6	48.889	432188.9	2.3
|	Pb	208	Pb	**181.314**	ug/L	0.8	2197.844	3341415.8	2.1
|	U	238	U	**0.413**	ug/L	4.3	13.333	8468.1	5.5
| >	Lu	175	Lu		ug/L		1052907.074	1126404.3	1.3
⌊	Hg	200	Hg	**1.264**	ug/L	7.1	21.111	1706.8	5.8

Sample ID: 580-29110-a-18-g ms

Sample Date/Time: Wednesday, October 19, 2011 14:24:30
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-g ms .082

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		115.258
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		113.992
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		110.041
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		110.349
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		106.980
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-18-h msd

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 14:27:34
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-h msd .083

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**1.940**	ug/L	5.3	7.778	1215.6	5.5
⌊>	Li	6	Li		ug/L		191344.413	197530.8	0.7
⌈	Al	27	Al	**4176.432**	ug/L	0.4	12660.058	21134560.8	0.2
|	Na	23	Na	**596.589**	ug/L	0.8	33003.642	3497945.9	1.0
|	Mg	24	Mg	**2456.107**	ug/L	0.8	1654.541	9311806.7	0.5
|	P	31	P	**589.749**	ug/L	1.2	5192.057	199778.4	1.2
|	K	39	K	**967.559**	ug/L	1.6	483115.804	7711615.8	1.5
|	Ca	44	Ca	**1318.508**	ug/L	1.2	10060.209	325533.1	1.1
⌊>	Sc	45	Sc		ug/L		1414190.814	1455504.6	0.3
⌈	Fe	54	Fe	**25612.555**	ug/L	1.2	20353.921	14534277.4	1.5
|	Ti	47	Ti	**141.880**	ug/L	0.7	397.783	110961.5	0.4
|	V	51	V	**43.478**	ug/L	1.3	2008.119	366833.1	0.9
|	Cr	52	Cr	**11.124**	ug/L	0.9	5263.192	82603.7	0.8
|	Mn	55	Mn	**4239.577**	ug/L	1.4	3160.350	46905506.8	1.5
|	Co	59	Co	**34.028**	ug/L	1.1	183.335	252458.1	1.3
|	Ni	60	Ni	**23.051**	ug/L	1.4	111.112	35511.9	1.6
|	Cu	65	Cu	**101.510**	ug/L	1.7	113.334	170624.2	1.6
|	Zn	68	Zn	**352.419**	ug/L	0.5	536.177	309912.8	0.3
|	As	75	As	**550.494**	ug/L	0.8	3114.424	741281.2	0.5
|	Se	82	Se	**76.412**	ug/L	2.8	88.890	9574.4	3.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1191438.2	0.3
⌈	Sr	88	Sr	**4.549**	ug/L	1.4	198.650	61632.9	0.6
|	Mo	95	Mo	**92.370**	ug/L	0.6	26.667	215312.8	0.9
|	Ag	107	Ag	**13.307**	ug/L	2.2	32.222	76611.6	1.1
|	Cd	114	Cd	**5.621**	ug/L	3.0	42.204	18856.9	1.9
|	Sn	118	Sn	**93.538**	ug/L	0.6	207.779	379495.3	1.6
|	Sb	121	Sb	**43.143**	ug/L	1.1	58.889	225348.0	0.9
|	Ba	137	Ba	**94.248**	ug/L	3.0	64.445	200174.2	2.0
⌊>	Rh	103	Rh		ug/L		1076837.936	1081728.3	1.1
⌈	Tl	203	Tl	**77.056**	ug/L	1.1	48.889	402400.4	1.3
|	Pb	208	Pb	**171.098**	ug/L	1.0	2197.844	2895573.2	1.2
|	U	238	U	**0.377**	ug/L	1.1	13.333	7090.6	1.2
| >	Lu	175	Lu		ug/L		1052907.074	1034404.9	0.3
⌊	Hg	200	Hg	**1.218**	ug/L	2.2	21.111	1511.2	2.4

Sample ID: 580-29110-a-18-h msd

Sample Date/Time: Wednesday, October 19, 2011 14:27:34
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-h msd .083

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.233
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.921
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.971
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.454
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		98.243
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-18-e PDS

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 14:30:37
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-e PDS.084

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.161**	ug/L	3.3	7.778	1356.7	4.7
⌊>	Li	6	Li		ug/L		191344.413	197988.4	1.9
⌈	Al	27	Al	**3542.748**	ug/L	2.3	12660.058	17841844.3	1.2
|	Na	23	Na	**559.311**	ug/L	3.1	33003.642	3265076.4	1.8
|	Mg	24	Mg	**2337.290**	ug/L	1.9	1654.541	8818102.1	0.5
|	P	31	P	**614.087**	ug/L	3.8	5192.057	206767.5	2.8
|	K	39	K	**1079.991**	ug/L	2.8	483115.804	8508902.1	2.6
|	Ca	44	Ca	**1079.001**	ug/L	2.1	10060.209	266984.3	1.5
⌊>	Sc	45	Sc		ug/L		1414190.814	1448637.6	1.5
⌈	Fe	54	Fe	**22796.377**	ug/L	1.8	20353.921	12987319.7	0.8
|	Ti	47	Ti	**151.592**	ug/L	1.7	397.783	118983.5	0.8
|	V	51	V	**42.612**	ug/L	0.4	2008.119	360970.6	0.8
|	Cr	52	Cr	**11.569**	ug/L	1.4	5263.192	86023.8	0.6
|	Mn	55	Mn	**3707.995**	ug/L	1.7	3160.350	41184219.9	1.9
|	Co	59	Co	**34.086**	ug/L	0.9	183.335	253863.6	0.3
|	Ni	60	Ni	**24.754**	ug/L	0.3	111.112	38275.7	0.7
|	Cu	65	Cu	**92.464**	ug/L	1.9	113.334	156023.0	0.9
|	Zn	68	Zn	**346.868**	ug/L	2.1	536.177	306196.5	1.2
|	As	75	As	**544.016**	ug/L	0.2	3114.424	735474.7	1.0
|	Se	82	Se	**84.989**	ug/L	2.1	88.890	10679.7	1.9
⌊>	Ge	74	Ge		ug/L		1191781.780	1196099.9	0.9
⌈	Sr	88	Sr	**3.103**	ug/L	0.7	198.650	41871.0	1.4
|	Mo	95	Mo	**104.364**	ug/L	1.2	26.667	241942.8	0.9
|	Ag	107	Ag	**13.784**	ug/L	1.2	32.222	78934.1	0.5
|	Cd	114	Cd	**5.503**	ug/L	5.0	42.204	18362.1	4.2
|	Sn	118	Sn	**102.419**	ug/L	1.3	207.779	413214.5	0.8
|	Sb	121	Sb	**72.190**	ug/L	0.7	58.889	374989.0	0.3
|	Ba	137	Ba	**100.515**	ug/L	2.0	64.445	212355.9	1.8
⌊>	Rh	103	Rh		ug/L		1076837.936	1075862.7	0.9
⌈	Tl	203	Tl	**83.656**	ug/L	1.3	48.889	433277.9	1.6
|	Pb	208	Pb	**168.708**	ug/L	0.7	2197.844	2831625.0	0.6
|	U	238	U	**0.360**	ug/L	2.5	13.333	6719.4	2.1
| >	Lu	175	Lu		ug/L		1052907.074	1025903.9	0.5
⌊	Hg	200	Hg	**1.290**	ug/L	7.2	21.111	1585.6	6.8

Sample ID: 580-29110-a-18-e PDS

Sample Date/Time: Wednesday, October 19, 2011 14:30:37

Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-18-e PDS.084

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.472
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.436
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.362
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.909
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		97.435
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCS

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 14:33:42
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\LCS.085

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.027**	ug/L	8.3	7.778	1277.8	8.2
⌊>	Li	6	Li		ug/L		191344.413	198745.4	1.5
⌈	Al	27	Al	**99.196**	ug/L	1.8	12660.058	490166.3	1.5
|	Na	23	Na	**444.194**	ug/L	0.6	33003.642	2488958.1	2.2
|	Mg	24	Mg	**419.221**	ug/L	1.7	1654.541	1514895.2	0.1
|	P	31	P	**424.756**	ug/L	4.1	5192.057	138434.6	3.3
|	K	39	K	**459.989**	ug/L	1.6	483115.804	3739889.0	1.0
|	Ca	44	Ca	**411.984**	ug/L	1.1	10060.209	103662.6	2.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1386322.4	1.8
⌈	Fe	54	Fe	**460.684**	ug/L	0.9	20353.921	274059.2	0.4
|	Ti	47	Ti	**81.026**	ug/L	1.9	397.783	61879.3	1.1
|	V	51	V	**21.786**	ug/L	2.1	2008.119	179987.2	1.2
|	Cr	52	Cr	**8.614**	ug/L	2.4	5263.192	63445.0	1.3
|	Mn	55	Mn	**23.156**	ug/L	0.9	3160.350	252586.0	1.6
|	Co	59	Co	**22.221**	ug/L	0.9	183.335	160621.3	0.2
|	Ni	60	Ni	**22.058**	ug/L	1.9	111.112	33098.3	1.2
|	Cu	65	Cu	**11.207**	ug/L	4.5	113.334	18440.8	3.8
|	Zn	68	Zn	**22.162**	ug/L	0.7	536.177	19470.9	0.8
|	As	75	As	**87.278**	ug/L	1.2	3114.424	117011.5	0.3
|	Se	82	Se	**86.047**	ug/L	0.3	88.890	10489.5	0.9
⌊>	Ge	74	Ge		ug/L		1191781.780	1160417.3	0.9
⌈	Sr	88	Sr	**-0.018**	ug/L	2.3	198.650	-43.5	13.1
|	Mo	95	Mo	**102.561**	ug/L	0.7	26.667	236543.5	1.1
|	Ag	107	Ag	**12.906**	ug/L	1.0	32.222	73531.0	1.3
|	Cd	114	Cd	**2.282**	ug/L	4.3	42.204	7601.9	3.8
|	Sn	118	Sn	**103.889**	ug/L	1.1	207.779	416984.0	0.9
|	Sb	121	Sb	**61.029**	ug/L	0.7	58.889	315385.7	0.5
|	Ba	137	Ba	**83.441**	ug/L	1.1	64.445	175382.2	0.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1070279.0	0.6
⌈	Tl	203	Tl	**85.632**	ug/L	1.4	48.889	439831.8	0.8
|	Pb	208	Pb	**22.198**	ug/L	1.2	2197.844	371351.3	0.8
|	U	238	U	**0.001**	ug/L	12.0	13.333	27.8	6.9
| >	Lu	175	Lu		ug/L		1052907.074	1017474.3	0.6
⌊	Hg	200	Hg	**1.011**	ug/L	4.6	21.111	1237.8	4.2

Sample ID: LCS

Sample Date/Time: Wednesday, October 19, 2011 14:33:42
Dataset File: C:\elandata\DataSet\101811AM\LCS.085

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.868
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		98.029
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		97.368
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.391
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		96.635
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCSD

Sample Description: 50X
Sample Date/Time: Wednesday, October 19, 2011 14:36:47
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\LCSD.086

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**2.137**	ug/L	7.1	7.778	1286.7	6.0
⌊>	Li	6	Li		ug/L		191344.413	190023.4	1.3
⌈	Al	27	Al	**102.893**	ug/L	1.4	12660.058	493436.3	0.8
|	Na	23	Na	**435.764**	ug/L	1.9	33003.642	2371963.0	1.1
|	Mg	24	Mg	**405.198**	ug/L	1.9	1654.541	1422432.7	1.1
|	P	31	P	**411.740**	ug/L	2.9	5192.057	130510.3	2.0
|	K	39	K	**448.270**	ug/L	0.5	483115.804	3552342.6	1.2
|	Ca	44	Ca	**403.900**	ug/L	1.7	10060.209	98901.2	1.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1346553.8	0.8
⌈	Fe	54	Fe	**436.121**	ug/L	0.8	20353.921	255036.9	1.0
|	Ti	47	Ti	**79.586**	ug/L	1.0	397.783	59512.6	0.6
|	V	51	V	**21.266**	ug/L	1.8	2008.119	172058.0	1.9
|	Cr	52	Cr	**8.387**	ug/L	0.3	5263.192	60616.1	0.6
|	Mn	55	Mn	**21.949**	ug/L	1.1	3160.350	234533.0	1.2
|	Co	59	Co	**21.606**	ug/L	1.8	183.335	152892.8	1.4
|	Ni	60	Ni	**21.287**	ug/L	1.4	111.112	31275.3	0.9
|	Cu	65	Cu	**10.856**	ug/L	0.8	113.334	17495.2	1.1
|	Zn	68	Zn	**21.511**	ug/L	1.2	536.177	18516.2	1.3
|	As	75	As	**84.070**	ug/L	1.2	3114.424	110455.0	1.0
|	Se	82	Se	**82.705**	ug/L	2.3	88.890	9873.5	2.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1136008.6	0.5
⌈	Sr	88	Sr	**-0.014**	ug/L	27.4	198.650	4.4	1150.4
|	Mo	95	Mo	**101.526**	ug/L	1.6	26.667	225177.5	0.7
|	Ag	107	Ag	**12.673**	ug/L	1.0	32.222	69437.2	0.1
|	Cd	114	Cd	**2.272**	ug/L	7.2	42.204	7276.9	6.3
|	Sn	118	Sn	**101.774**	ug/L	0.6	207.779	392893.4	1.3
|	Sb	121	Sb	**60.197**	ug/L	0.6	58.889	299188.4	0.6
|	Ba	137	Ba	**80.804**	ug/L	1.0	64.445	163349.8	1.2
⌊>	Rh	103	Rh		ug/L		1076837.936	1029355.6	1.0
⌈	Tl	203	Tl	**85.315**	ug/L	2.0	48.889	416082.6	0.7
|	Pb	208	Pb	**21.852**	ug/L	1.7	2197.844	347148.7	0.9
|	U	238	U	**0.001**	ug/L	24.3	13.333	21.1	9.1
| >	Lu	175	Lu		ug/L		1052907.074	966217.5	1.3
⌊	Hg	200	Hg	**1.060**	ug/L	5.8	21.111	1231.2	5.0

Sample ID: LCSD

Sample Date/Time: Wednesday, October 19, 2011 14:36:47
Dataset File: C:\elandata\DataSet\101811AM\LCSD.086

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		99.310
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		95.217
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		95.320
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		95.591
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		91.767
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: LCSSRM

Sample Description: 20X
Sample Date/Time: Wednesday, October 19, 2011 14:39:52
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\LCSSRM.087

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**42.929**	ug/L	3.5	7.778	28565.2	1.7
⌊>	Li	6	Li		ug/L		191344.413	211157.4	2.2
⌈	Al	27	Al	**3959.499**	ug/L	1.3	12660.058	20035815.4	1.3
|	Na	23	Na	**330.398**	ug/L	0.8	33003.642	1952228.4	1.3
|	Mg	24	Mg	**1430.362**	ug/L	1.4	1654.541	5423526.0	1.9
|	P	31	P	**256.033**	ug/L	0.3	5192.057	89747.7	0.6
|	K	39	K	**1298.958**	ug/L	0.9	483115.804	10181610.1	0.6
|	Ca	44	Ca	**3190.377**	ug/L	1.5	10060.209	772921.1	1.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1455383.0	0.6
⌈	Fe	54	Fe	**7039.621**	ug/L	0.6	20353.921	4054594.3	0.3
|	Ti	47	Ti	**86.897**	ug/L	0.8	397.783	68886.8	1.5
|	V	51	V	**56.974**	ug/L	1.1	2008.119	485500.4	1.1
|	Cr	52	Cr	**47.783**	ug/L	2.2	5263.192	341265.5	1.7
|	Mn	55	Mn	**256.055**	ug/L	1.2	3160.350	2868110.7	2.0
|	Co	59	Co	**72.178**	ug/L	0.4	183.335	541350.8	1.3
|	Ni	60	Ni	**57.481**	ug/L	1.5	111.112	89393.4	2.4
|	Cu	65	Cu	**36.834**	ug/L	0.6	113.334	62687.3	1.2
|	Zn	68	Zn	**154.496**	ug/L	0.5	536.177	137705.2	1.2
|	As	75	As	**54.782**	ug/L	1.6	3114.424	77432.0	0.8
|	Se	82	Se	**105.521**	ug/L	1.1	88.890	13336.9	1.7
⌊>	Ge	74	Ge		ug/L		1191781.780	1204904.1	0.9
⌈	Sr	88	Sr	**56.954**	ug/L	1.0	198.650	776714.6	0.7
|	Mo	95	Mo	**46.406**	ug/L	0.5	26.667	109227.1	0.9
|	Ag	107	Ag	**25.431**	ug/L	0.9	32.222	147814.1	0.7
|	Cd	114	Cd	**55.185**	ug/L	1.2	42.204	186590.3	1.5
|	Sn	118	Sn	**67.786**	ug/L	1.1	207.779	277713.8	1.5
|	Sb	121	Sb	**106.323**	ug/L	0.9	58.889	560620.0	0.6
|	Ba	137	Ba	**153.985**	ug/L	0.4	64.445	330217.4	0.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1092111.6	0.4
⌈	Tl	203	Tl	**88.711**	ug/L	1.9	48.889	465308.9	1.7
|	Pb	208	Pb	**82.750**	ug/L	1.2	2197.844	1407736.1	0.8
|	U	238	U	**0.557**	ug/L	3.0	13.333	10520.5	2.6
| >	Lu	175	Lu		ug/L		1052907.074	1039024.0	0.4
⌊	Hg	200	Hg	**8.081**	ug/L	1.8	21.111	9955.7	2.2

Sample ID: LCSSRM

Sample Date/Time: Wednesday, October 19, 2011 14:39:52
Dataset File: C:\elandata\DataSet\101811AM\LCSSRM.087

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		110.355
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.913
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.101
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		101.418
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		98.681
⌊	Hg	200	Hg		

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 14:43:00
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.088

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**48.409**	ug/L	2.8	7.778	29409.1	1.1
⌊>	Li	6	Li		ug/L		191344.413	192767.7	1.9
⌈	Al	27	Al	**498.395**	ug/L	2.2	12660.058	2352729.7	1.2
|	Na	23	Na	**5015.681**	ug/L	0.9	33003.642	27080727.7	2.0
|	Mg	24	Mg	**5057.947**	ug/L	2.3	1654.541	17808037.0	2.3
|	P	31	P	**4809.185**	ug/L	0.6	5192.057	1477520.9	1.1
|	K	39	K	**5177.305**	ug/L	1.8	483115.804	36317024.9	2.4
|	Ca	44	Ca	**4711.807**	ug/L	1.6	10060.209	1055579.9	0.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1351809.4	1.1
⌈	Fe	54	Fe	**5180.604**	ug/L	3.4	20353.921	2800739.8	1.7
|	Ti	47	Ti	**51.057**	ug/L	3.2	397.783	38080.7	2.4
|	V	51	V	**50.540**	ug/L	1.7	2008.119	403830.7	1.5
|	Cr	52	Cr	**50.374**	ug/L	2.8	5263.192	336852.1	1.1
|	Mn	55	Mn	**51.002**	ug/L	2.6	3160.350	537648.1	1.3
|	Co	59	Co	**50.167**	ug/L	1.7	183.335	352633.7	0.2
|	Ni	60	Ni	**50.182**	ug/L	1.8	111.112	73137.9	0.6
|	Cu	65	Cu	**49.808**	ug/L	2.4	113.334	79388.9	0.8
|	Zn	68	Zn	**50.714**	ug/L	2.1	536.177	42707.2	2.7
|	As	75	As	**50.676**	ug/L	0.3	3114.424	67359.7	1.6
|	Se	82	Se	**49.937**	ug/L	3.7	88.890	5957.4	2.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1129311.3	1.7
⌈	Sr	88	Sr	**50.468**	ug/L	1.6	198.650	639713.3	1.3
|	Mo	95	Mo	**49.431**	ug/L	1.6	26.667	108131.1	1.2
|	Ag	107	Ag	**49.889**	ug/L	0.3	32.222	269489.3	0.6
|	Cd	114	Cd	**49.551**	ug/L	1.1	42.204	155714.4	0.7
|	Sn	118	Sn	**49.420**	ug/L	1.1	207.779	188234.3	1.2
|	Sb	121	Sb	**49.387**	ug/L	0.6	58.889	242063.6	0.4
|	Ba	137	Ba	**49.295**	ug/L	1.8	64.445	98299.4	2.2
⌊>	Rh	103	Rh		ug/L		1076837.936	1015059.8	0.4
⌈	Tl	203	Tl	**51.049**	ug/L	3.2	48.889	250383.2	1.4
|	Pb	208	Pb	**51.044**	ug/L	0.5	2197.844	812973.4	1.3
|	U	238	U	**51.092**	ug/L	0.3	13.333	901414.0	2.0
| >	Lu	175	Lu		ug/L		1052907.074	971860.5	1.8
⌊	Hg	200	Hg	**2.505**	ug/L	4.0	21.111	2899.2	4.0

Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 19, 2011 14:43:00
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.088

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	96.818	
⌊>	Li	6	Li		100.744
⌈	Al	27	Al	99.679	
|	Na	23	Na	100.314	
|	Mg	24	Mg	101.159	
|	P	31	P	96.184	
|	K	39	K	103.546	
|	Ca	44	Ca	94.236	
⌊>	Sc	45	Sc		95.589
⌈	Fe	54	Fe	103.612	
|	Ti	47	Ti	102.114	
|	V	51	V	101.081	
|	Cr	52	Cr	100.748	
|	Mn	55	Mn	102.003	
|	Co	59	Co	100.334	
|	Ni	60	Ni	100.364	
|	Cu	65	Cu	99.615	
|	Zn	68	Zn	101.429	
|	As	75	As	101.352	
|	Se	82	Se	99.874	
⌊>	Ge	74	Ge		94.758
⌈	Sr	88	Sr	100.936	
|	Mo	95	Mo	98.862	
|	Ag	107	Ag	99.778	
|	Cd	114	Cd	99.101	
|	Sn	118	Sn	98.841	
|	Sb	121	Sb	98.773	
|	Ba	137	Ba	98.591	
⌊>	Rh	103	Rh		94.263
⌈	Tl	203	Tl	102.097	
|	Pb	208	Pb	102.088	
|	U	238	U	102.184	
|>	Lu	175	Lu		92.303
⌊	Hg	200	Hg	100.181	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 14:46:11
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.089

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.002**	ug/L	10.5	7.778	6.7	0.0
⌊>	Li	6	Li		ug/L		191344.413	189259.0	1.6
⌈	Al	27	Al	**0.441**	ug/L	22.8	12660.058	13926.8	2.4
|	Na	23	Na	**-2.789**	ug/L	3.5	33003.642	16221.4	2.4
|	Mg	24	Mg	**0.073**	ug/L	115.7	1654.541	1804.6	15.2
|	P	31	P	**0.364**	ug/L	99.3	5192.057	4987.5	2.0
|	K	39	K	**4.572**	ug/L	21.8	483115.804	485015.2	0.8
|	Ca	44	Ca	**-8.099**	ug/L	7.5	10060.209	7684.3	1.2
⌊>	Sc	45	Sc		ug/L		1414190.814	1328748.3	0.9
⌈	Fe	54	Fe	**4.763**	ug/L	26.9	20353.921	21551.1	2.4
|	Ti	47	Ti	**-0.201**	ug/L	4.8	397.783	225.6	2.3
|	V	51	V	**0.018**	ug/L	1161.0	2008.119	2009.4	79.2
|	Cr	52	Cr	**0.017**	ug/L	171.1	5263.192	5033.1	4.5
|	Mn	55	Mn	**0.120**	ug/L	22.2	3160.350	4198.4	5.8
|	Co	59	Co	**0.010**	ug/L	6.9	183.335	242.2	2.9
|	Ni	60	Ni	**0.003**	ug/L	432.2	111.112	107.8	15.6
|	Cu	65	Cu	**-0.010**	ug/L	152.7	113.334	90.0	26.7
|	Zn	68	Zn	**0.258**	ug/L	26.6	536.177	712.9	7.4
|	As	75	As	**0.209**	ug/L	57.2	3114.424	3173.2	3.9
|	Se	82	Se	**0.017**	ug/L	267.5	88.890	85.0	5.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1114281.3	0.9
⌈	Sr	88	Sr	**0.005**	ug/L	7.2	198.650	250.4	2.6
|	Mo	95	Mo	**0.083**	ug/L	13.0	26.667	202.2	11.7
|	Ag	107	Ag	**0.006**	ug/L	40.1	32.222	60.0	20.0
|	Cd	114	Cd	**-0.004**	ug/L	216.3	42.204	25.7	113.3
|	Sn	118	Sn	**0.357**	ug/L	4.2	207.779	1526.7	3.6
|	Sb	121	Sb	**0.089**	ug/L	21.6	58.889	483.3	19.9
|	Ba	137	Ba	**0.001**	ug/L	134.2	64.445	61.1	3.1
⌊>	Rh	103	Rh		ug/L		1076837.936	996753.2	0.8
⌈	Tl	203	Tl	**0.202**	ug/L	1.0	48.889	1015.6	0.8
|	Pb	208	Pb	**0.008**	ug/L	44.7	2197.844	2117.8	2.6
|	U	238	U	**0.018**	ug/L	22.2	13.333	326.7	21.2
| >	Lu	175	Lu		ug/L		1052907.074	951584.9	0.3
⌊	Hg	200	Hg	**0.050**	ug/L	3.7	21.111	75.6	2.5

Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 19, 2011 14:46:11
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.089

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		98.910
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		93.958
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		93.497
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		92.563
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		90.377
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-2-b

Sample Description: 10X
Sample Date/Time: Wednesday, October 19, 2011 14:49:19
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-2-b .090

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.102**	ug/L	43.0	7.778	76.7	37.1
⌊>	Li	6	Li		ug/L		191344.413	212306.1	1.1
⌈	Al	27	Al	**24668.214**	ug/L	1.4	12660.058	123796845.1	1.3
|	Na	23	Na	**128.147**	ug/L	0.3	33003.642	771986.8	1.0
|	Mg	24	Mg	**7880.295**	ug/L	2.2	1654.541	29638594.2	1.7
|	P	31	P	**1163.186**	ug/L	1.2	5192.057	385846.1	2.1
|	K	39	K	**2504.365**	ug/L	1.9	483115.804	19023662.4	2.6
|	Ca	44	Ca	**740.322**	ug/L	0.6	10060.209	185869.2	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1444244.8	1.2
⌈	Fe	54	Fe	**74174.687**	ug/L	1.3	20353.921	40355014.6	0.8
|	Ti	47	Ti	**711.200**	ug/L	0.9	397.783	532256.6	0.8
|	V	51	V	**98.364**	ug/L	0.8	2008.119	794025.2	0.6
|	Cr	52	Cr	**12.177**	ug/L	1.7	5263.192	86294.3	0.4
|	Mn	55	Mn	**359.240**	ug/L	0.6	3160.350	3817135.7	1.2
|	Co	59	Co	**13.451**	ug/L	1.9	183.335	95866.2	1.0
|	Ni	60	Ni	**5.044**	ug/L	2.4	111.112	7539.8	1.4
|	Cu	65	Cu	**531.540**	ug/L	1.0	113.334	856954.0	0.6
|	Zn	68	Zn	**58.296**	ug/L	1.8	536.177	49629.2	2.1
|	As	75	As	**2008.264**	ug/L	1.1	3114.424	2587269.2	0.3
|	Se	82	Se	**2.189**	ug/L	8.3	88.890	346.1	6.8
⌊>	Ge	74	Ge		ug/L		1191781.780	1143456.7	1.3
⌈	Sr	88	Sr	**7.233**	ug/L	0.6	198.650	93505.3	0.9
|	Mo	95	Mo	**5.891**	ug/L	2.3	26.667	13141.6	0.8
|	Ag	107	Ag	**0.953**	ug/L	2.5	32.222	5271.0	1.0
|	Cd	114	Cd	**0.114**	ug/L	3.9	42.204	404.6	2.0
|	Sn	118	Sn	**1.188**	ug/L	4.0	207.779	4800.8	3.3
|	Sb	121	Sb	**2.352**	ug/L	2.8	58.889	11790.4	1.7
|	Ba	137	Ba	**45.511**	ug/L	1.3	64.445	92392.3	1.1
⌊>	Rh	103	Rh		ug/L		1076837.936	1033477.2	1.5
⌈	Tl	203	Tl	**0.513**	ug/L	2.3	48.889	2720.3	2.2
|	Pb	208	Pb	**42.488**	ug/L	0.4	2197.844	718402.2	0.5
|	U	238	U	**2.264**	ug/L	3.1	13.333	42400.6	3.0
| >	Lu	175	Lu		ug/L		1052907.074	1031150.5	0.2
⌊	Hg	200	Hg	**0.471**	ug/L	7.8	21.111	595.6	7.6

Sample ID: 580-29110-a-2-b

Sample Date/Time: Wednesday, October 19, 2011 14:49:19
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-2-b .090

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		110.955
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		102.125
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		95.945
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		95.973
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		97.934
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-19-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 14:52:23
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-19-b .091

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.044**	ug/L	38.7	7.778	35.6	30.1
⌊>	Li	6	Li		ug/L		191344.413	198428.6	0.8
⌈	Al	27	Al	**2486.342**	ug/L	2.0	12660.058	12325811.4	2.1
|	Na	23	Na	**70.950**	ug/L	3.3	33003.642	436667.6	3.2
|	Mg	24	Mg	**1405.597**	ug/L	1.3	1654.541	5219113.7	1.5
|	P	31	P	**130.608**	ug/L	2.0	5192.057	47397.4	1.7
|	K	39	K	**347.726**	ug/L	2.0	483115.804	3025829.8	1.9
|	Ca	44	Ca	**471.728**	ug/L	0.9	10060.209	120558.8	0.8
⌊>	Sc	45	Sc		ug/L		1414190.814	1425251.2	0.2
⌈	Fe	54	Fe	**13811.293**	ug/L	0.9	20353.921	7738273.8	0.5
|	Ti	47	Ti	**42.862**	ug/L	0.9	397.783	33334.4	1.3
|	V	51	V	**14.274**	ug/L	1.5	2008.119	120097.6	1.3
|	Cr	52	Cr	**2.130**	ug/L	2.0	5263.192	19795.9	1.2
|	Mn	55	Mn	**2427.663**	ug/L	0.7	3160.350	26490561.7	1.2
|	Co	59	Co	**6.656**	ug/L	2.6	183.335	48846.7	3.0
|	Ni	60	Ni	**2.513**	ug/L	4.4	111.112	3916.1	4.8
|	Cu	65	Cu	**64.040**	ug/L	0.2	113.334	106201.1	0.5
|	Zn	68	Zn	**222.658**	ug/L	0.9	536.177	193299.2	1.0
|	As	75	As	**203.134**	ug/L	0.7	3114.424	271701.2	0.1
|	Se	82	Se	**0.101**	ug/L	94.5	88.890	100.0	11.5
⌊>	Ge	74	Ge		ug/L		1191781.780	1175021.8	0.7
⌈	Sr	88	Sr	**2.012**	ug/L	0.9	198.650	27036.5	1.4
|	Mo	95	Mo	**0.541**	ug/L	5.6	26.667	1271.2	5.6
|	Ag	107	Ag	**0.865**	ug/L	1.7	32.222	4949.7	1.9
|	Cd	114	Cd	**3.528**	ug/L	0.8	42.204	11711.1	0.4
|	Sn	118	Sn	**0.169**	ug/L	9.6	207.779	884.5	7.4
|	Sb	121	Sb	**7.229**	ug/L	1.9	58.889	37345.4	1.1
|	Ba	137	Ba	**10.005**	ug/L	1.3	64.445	21051.1	0.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1068555.4	0.8
⌈	Tl	203	Tl	**0.112**	ug/L	4.9	48.889	622.2	4.6
|	Pb	208	Pb	**88.985**	ug/L	0.5	2197.844	1479022.3	0.6
|	U	238	U	**0.328**	ug/L	3.4	13.333	6049.1	3.5
| >	Lu	175	Lu		ug/L		1052907.074	1015224.9	0.1
⌊	Hg	200	Hg	**0.224**	ug/L	6.4	21.111	288.9	5.9

Sample ID: 580-29110-a-19-b

Sample Date/Time: Wednesday, October 19, 2011 14:52:23
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-19-b .091

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.702
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		100.782
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		98.594
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.231
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		96.421
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-20-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 14:58:36
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-20-b .093

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.036**	ug/L	18.4	7.778	30.0	11.1
⌊>	Li	6	Li		ug/L		191344.413	195311.0	2.4
⌈	Al	27	Al	**3516.828**	ug/L	1.5	12660.058	17269101.8	2.0
|	Na	23	Na	**97.222**	ug/L	1.7	33003.642	580589.7	1.3
|	Mg	24	Mg	**1249.221**	ug/L	0.2	1654.541	4595835.4	0.7
|	P	31	P	**89.612**	ug/L	1.8	5192.057	33847.8	1.6
|	K	39	K	**184.984**	ug/L	1.3	483115.804	1820523.6	0.5
|	Ca	44	Ca	**716.041**	ug/L	1.5	10060.209	176098.8	0.9
⌊>	Sc	45	Sc		ug/L		1414190.814	1412105.8	0.5
⌈	Fe	54	Fe	**4829.095**	ug/L	1.2	20353.921	2751178.8	1.2
|	Ti	47	Ti	**60.133**	ug/L	2.6	397.783	47158.8	2.1
|	V	51	V	**8.633**	ug/L	2.5	2008.119	74302.2	3.0
|	Cr	52	Cr	**0.964**	ug/L	4.4	5263.192	11938.3	3.3
|	Mn	55	Mn	**218.529**	ug/L	2.6	3160.350	2415481.7	1.7
|	Co	59	Co	**3.086**	ug/L	1.6	183.335	23016.3	0.8
|	Ni	60	Ni	**1.628**	ug/L	4.8	111.112	2604.7	3.9
|	Cu	65	Cu	**38.574**	ug/L	0.7	113.334	64776.5	0.4
|	Zn	68	Zn	**148.970**	ug/L	0.8	536.177	131044.4	0.7
|	As	75	As	**122.057**	ug/L	0.8	3114.424	166446.4	0.9
|	Se	82	Se	**0.100**	ug/L	93.5	88.890	101.1	12.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1189043.1	0.9
⌈	Sr	88	Sr	**4.934**	ug/L	1.8	198.650	66910.8	1.3
|	Mo	95	Mo	**0.288**	ug/L	2.6	26.667	697.8	2.0
|	Ag	107	Ag	**0.195**	ug/L	4.6	32.222	1154.5	5.1
|	Cd	114	Cd	**0.520**	ug/L	7.3	42.204	1784.0	6.4
|	Sn	118	Sn	**0.076**	ug/L	24.5	207.779	516.7	14.1
|	Sb	121	Sb	**1.038**	ug/L	2.6	58.889	5485.5	2.7
|	Ba	137	Ba	**8.655**	ug/L	2.7	64.445	18466.4	2.2
⌊>	Rh	103	Rh		ug/L		1076837.936	1083077.9	0.8
⌈	Tl	203	Tl	**0.046**	ug/L	4.2	48.889	280.0	4.1
|	Pb	208	Pb	**23.078**	ug/L	0.3	2197.844	379126.2	0.8
|	U	238	U	**0.141**	ug/L	3.2	13.333	2564.7	3.8
| >	Lu	175	Lu		ug/L		1052907.074	999362.6	0.6
⌊	Hg	200	Hg	**0.040**	ug/L	32.9	21.111	67.8	22.7

Sample ID: 580-29110-a-20-b

Sample Date/Time: Wednesday, October 19, 2011 14:58:36
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-20-b .093

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.073
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		99.853
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		99.770
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.579
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		94.915
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-22-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 15:04:50
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-22-b .095

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.086**	ug/L	50.5	7.778	61.1	42.4
⌊>	Li	6	Li		ug/L		191344.413	196081.2	1.6
⌈	Al	27	Al	**2198.728**	ug/L	0.8	12660.058	10961567.8	1.6
|	Na	23	Na	**14.154**	ug/L	2.9	33003.642	114353.8	2.0
|	Mg	24	Mg	**935.988**	ug/L	0.2	1654.541	3495071.8	1.2
|	P	31	P	**153.540**	ug/L	1.2	5192.057	55098.3	0.2
|	K	39	K	**324.247**	ug/L	2.9	483115.804	2869581.3	1.5
|	Ca	44	Ca	**381.588**	ug/L	0.4	10060.209	100005.5	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1433108.5	1.3
⌈	Fe	54	Fe	**8610.302**	ug/L	0.9	20353.921	4921989.4	1.6
|	Ti	47	Ti	**60.058**	ug/L	1.9	397.783	47409.7	0.8
|	V	51	V	**7.087**	ug/L	0.9	2008.119	61754.1	1.3
|	Cr	52	Cr	**1.364**	ug/L	3.6	5263.192	14808.8	2.1
|	Mn	55	Mn	**726.773**	ug/L	1.0	3160.350	8080069.2	1.3
|	Co	59	Co	**5.290**	ug/L	2.2	183.335	39574.8	1.7
|	Ni	60	Ni	**3.152**	ug/L	1.3	111.112	4974.2	1.2
|	Cu	65	Cu	**26.760**	ug/L	3.0	113.334	45263.8	2.3
|	Zn	68	Zn	**177.259**	ug/L	1.3	536.177	156847.0	0.3
|	As	75	As	**278.041**	ug/L	1.5	3114.424	377635.3	0.6
|	Se	82	Se	**0.152**	ug/L	89.1	88.890	108.3	16.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1196905.4	1.2
⌈	Sr	88	Sr	**1.177**	ug/L	2.3	198.650	16036.1	2.7
|	Mo	95	Mo	**0.147**	ug/L	7.1	26.667	368.9	6.2
|	Ag	107	Ag	**1.307**	ug/L	3.4	32.222	7528.7	2.7
|	Cd	114	Cd	**0.965**	ug/L	2.6	42.204	3261.3	2.3
|	Sn	118	Sn	**0.124**	ug/L	16.8	207.779	711.1	12.5
|	Sb	121	Sb	**9.772**	ug/L	1.5	58.889	50918.4	1.6
|	Ba	137	Ba	**7.689**	ug/L	2.0	64.445	16339.3	2.3
⌊>	Rh	103	Rh		ug/L		1076837.936	1078127.8	0.7
⌈	Tl	203	Tl	**0.073**	ug/L	12.1	48.889	424.5	10.4
|	Pb	208	Pb	**298.649**	ug/L	0.3	2197.844	4999740.7	0.6
|	U	238	U	**0.036**	ug/L	3.1	13.333	674.5	3.5
| >	Lu	175	Lu		ug/L		1052907.074	1023596.7	0.5
⌊	Hg	200	Hg	**0.054**	ug/L	23.6	21.111	85.6	18.4

Sample ID: 580-29110-a-22-b

Sample Date/Time: Wednesday, October 19, 2011 15:04:50
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-22-b .095

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.476
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		101.338
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.430
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.120
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		97.216
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-21-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 15:01:43
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-21-b .094

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.076**	ug/L	3.2	7.778	55.6	3.5
⌊>	Li	6	Li		ug/L		191344.413	197820.3	1.0
⌈	Al	27	Al	**1945.078**	ug/L	2.9	12660.058	9681492.1	2.1
|	Na	23	Na	**8.791**	ug/L	6.8	33003.642	83542.6	2.8
|	Mg	24	Mg	**848.058**	ug/L	2.6	1654.541	3161146.1	1.0
|	P	31	P	**144.884**	ug/L	3.3	5192.057	52195.2	1.1
|	K	39	K	**307.579**	ug/L	2.2	483115.804	2742940.8	0.1
|	Ca	44	Ca	**295.538**	ug/L	1.4	10060.209	79622.4	0.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1430943.6	1.9
⌈	Fe	54	Fe	**8620.192**	ug/L	1.3	20353.921	4925491.2	1.4
|	Ti	47	Ti	**45.822**	ug/L	2.2	397.783	36252.6	1.3
|	V	51	V	**6.712**	ug/L	1.5	2008.119	58569.6	1.6
|	Cr	52	Cr	**1.302**	ug/L	4.4	5263.192	14375.0	2.9
|	Mn	55	Mn	**751.276**	ug/L	1.4	3160.350	8348607.9	0.8
|	Co	59	Co	**5.188**	ug/L	1.6	183.335	38804.9	1.7
|	Ni	60	Ni	**3.225**	ug/L	3.9	111.112	5084.2	3.5
|	Cu	65	Cu	**21.326**	ug/L	2.0	113.334	36086.6	2.0
|	Zn	68	Zn	**153.114**	ug/L	1.0	536.177	135509.0	0.6
|	As	75	As	**292.657**	ug/L	0.5	3114.424	397202.0	0.9
|	Se	82	Se	**0.177**	ug/L	107.3	88.890	111.1	20.4
⌊>	Ge	74	Ge		ug/L		1191781.780	1196423.6	0.9
⌈	Sr	88	Sr	**0.990**	ug/L	1.2	198.650	13582.7	1.5
|	Mo	95	Mo	**0.147**	ug/L	2.3	26.667	368.9	2.9
|	Ag	107	Ag	**2.142**	ug/L	2.1	32.222	12375.4	1.4
|	Cd	114	Cd	**0.904**	ug/L	2.9	42.204	3074.4	2.3
|	Sn	118	Sn	**0.146**	ug/L	10.2	207.779	802.2	8.5
|	Sb	121	Sb	**5.752**	ug/L	1.7	58.889	30138.4	0.8
|	Ba	137	Ba	**7.334**	ug/L	1.9	64.445	15664.1	2.7
⌊>	Rh	103	Rh		ug/L		1076837.936	1083314.3	1.1
⌈	Tl	203	Tl	**0.083**	ug/L	11.1	48.889	471.1	8.4
|	Pb	208	Pb	**230.674**	ug/L	1.5	2197.844	3819926.8	0.3
|	U	238	U	**0.029**	ug/L	9.5	13.333	550.0	7.9
| >	Lu	175	Lu		ug/L		1052907.074	1012539.5	1.6
⌊	Hg	200	Hg	**0.052**	ug/L	14.9	21.111	82.2	10.2

Sample ID: 580-29110-a-21-b

Sample Date/Time: Wednesday, October 19, 2011 15:01:43
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-21-b .094

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.384
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		101.185
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		100.389
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		100.601
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		96.166
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29110-a-23-b

Sample Description: 100X
Sample Date/Time: Wednesday, October 19, 2011 15:07:57
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-23-b .096

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.033**	ug/L	32.4	7.778	28.9	24.0
⌊>	Li	6	Li		ug/L		191344.413	198296.9	1.4
⌈	Al	27	Al	**3758.824**	ug/L	1.1	12660.058	18763495.5	0.8
|	Na	23	Na	**110.271**	ug/L	1.0	33003.642	665083.1	1.6
|	Mg	24	Mg	**1248.169**	ug/L	1.2	1654.541	4668903.0	1.8
|	P	31	P	**92.932**	ug/L	3.3	5192.057	35484.0	0.9
|	K	39	K	**175.031**	ug/L	2.0	483115.804	1777739.0	1.1
|	Ca	44	Ca	**781.625**	ug/L	2.0	10060.209	194527.1	2.4
⌊>	Sc	45	Sc		ug/L		1414190.814	1435862.7	1.9
⌈	Fe	54	Fe	**4116.724**	ug/L	0.8	20353.921	2385515.1	0.9
|	Ti	47	Ti	**61.770**	ug/L	0.2	397.783	49202.4	0.3
|	V	51	V	**8.897**	ug/L	1.0	2008.119	77719.5	0.9
|	Cr	52	Cr	**1.042**	ug/L	2.7	5263.192	12680.1	1.7
|	Mn	55	Mn	**172.766**	ug/L	1.6	3160.350	1940750.1	1.3
|	Co	59	Co	**3.053**	ug/L	1.7	183.335	23127.6	1.4
|	Ni	60	Ni	**1.610**	ug/L	3.1	111.112	2619.1	3.2
|	Cu	65	Cu	**39.527**	ug/L	1.0	113.334	67423.2	0.7
|	Zn	68	Zn	**135.676**	ug/L	0.9	536.177	121288.0	0.8
|	As	75	As	**111.082**	ug/L	0.6	3114.424	154158.7	0.1
|	Se	82	Se	**0.057**	ug/L	51.8	88.890	97.2	4.0
⌊>	Ge	74	Ge		ug/L		1191781.780	1207837.8	0.5
⌈	Sr	88	Sr	**5.171**	ug/L	1.1	198.650	69096.8	0.5
|	Mo	95	Mo	**0.248**	ug/L	2.3	26.667	597.8	2.6
|	Ag	107	Ag	**0.152**	ug/L	0.1	32.222	893.4	0.7
|	Cd	114	Cd	**0.503**	ug/L	3.1	42.204	1702.9	3.5
|	Sn	118	Sn	**0.068**	ug/L	13.0	207.779	476.7	7.0
|	Sb	121	Sb	**0.773**	ug/L	0.9	58.889	4039.5	1.4
|	Ba	137	Ba	**7.846**	ug/L	1.9	64.445	16506.2	2.5
⌊>	Rh	103	Rh		ug/L		1076837.936	1067374.7	0.7
⌈	Tl	203	Tl	**0.038**	ug/L	10.7	48.889	242.2	9.2
|	Pb	208	Pb	**14.394**	ug/L	0.9	2197.844	243160.7	0.3
|	U	238	U	**0.145**	ug/L	1.6	13.333	2709.1	1.6
| >	Lu	175	Lu		ug/L		1052907.074	1024285.2	0.7
⌊	Hg	200	Hg	**0.032**	ug/L	9.1	21.111	58.9	6.5

Sample ID: 580-29110-a-23-b

Sample Date/Time: Wednesday, October 19, 2011 15:07:57
Dataset File: C:\elandata\DataSet\101811AM\580-29110-a-23-b .096

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.634
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		101.532
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		101.347
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		99.121
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		97.282
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 720-38133-a-1-a

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 15:11:05
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\720-38133-a-1-a .097

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.008**	ug/L	69.4	7.778	3.3	100.0
⌊>	Li	6	Li		ug/L		191344.413	195645.7	2.7
⌈	Al	27	Al	**4.632**	ug/L	5.8	12660.058	33694.1	2.5
|	Na	23	Na	**S**	ug/L	S	33003.642	S	S
|	Mg	24	Mg	**115094.462**	ug/L	1.9	1654.541	403345244.4	2.1
|	P	31	P	**9150.826**	ug/L	2.7	5192.057	2793484.6	1.4
|	K	39	K	**6923.507**	ug/L	3.2	483115.804	48179046.8	2.6
|	Ca	44	Ca	**77083.379**	ug/L	1.4	10060.209	17043384.9	0.7
⌊>	Sc	45	Sc		ug/L		1414190.814	1345652.5	1.4
⌈	Fe	54	Fe	**816.874**	ug/L	1.5	20353.921	442828.7	0.9
|	Ti	47	Ti	**22.427**	ug/L	2.6	397.783	16379.4	2.2
|	V	51	V	**3.702**	ug/L	4.7	2008.119	30304.8	3.8
|	Cr	52	Cr	**0.768**	ug/L	3.3	5263.192	9712.2	1.3
|	Mn	55	Mn	**316.915**	ug/L	2.6	3160.350	3215609.1	2.1
|	Co	59	Co	**6.636**	ug/L	1.0	183.335	45251.6	1.1
|	Ni	60	Ni	**16.657**	ug/L	1.1	111.112	23544.9	1.4
|	Cu	65	Cu	**2.277**	ug/L	3.7	113.334	3608.2	3.1
|	Zn	68	Zn	**0.699**	ug/L	11.3	536.177	1053.5	5.8
|	As	75	As	**6.626**	ug/L	9.0	3114.424	10998.7	7.2
|	Se	82	Se	**4.261**	ug/L	1.7	88.890	566.1	0.9
⌊>	Ge	74	Ge		ug/L		1191781.780	1091866.7	0.6
⌈	Sr	88	Sr	**1172.500**	ug/L	0.9	198.650	13657894.1	1.4
|	Mo	95	Mo	**87.832**	ug/L	1.4	26.667	176581.3	0.4
|	Ag	107	Ag	**0.002**	ug/L	192.8	32.222	37.8	50.2
|	Cd	114	Cd	**0.141**	ug/L	12.5	42.204	443.0	10.4
|	Sn	118	Sn	**0.189**	ug/L	9.9	207.779	841.1	7.8
|	Sb	121	Sb	**2.010**	ug/L	4.5	58.889	9102.9	3.4
|	Ba	137	Ba	**110.480**	ug/L	1.6	64.445	202406.1	0.6
⌊>	Rh	103	Rh		ug/L		1076837.936	933043.3	1.2
⌈	Tl	203	Tl	**0.019**	ug/L	24.0	48.889	132.2	16.2
|	Pb	208	Pb	**0.001**	ug/L	243.8	2197.844	1958.9	1.6
|	U	238	U	**35.409**	ug/L	1.6	13.333	597780.3	1.0
| >	Lu	175	Lu		ug/L		1052907.074	930028.6	0.6
⌊	Hg	200	Hg	**0.108**	ug/L	15.1	21.111	137.8	12.4

Sample ID: 720-38133-a-1-a

Sample Date/Time: Wednesday, October 19, 2011 15:11:05
Dataset File: C:\elandata\DataSet\101811AM\720-38133-a-1-a .097

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.248
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		95.154
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		91.616
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		86.647
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		88.330
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 720-38133-a-2-a

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 15:14:13
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\720-38133-a-2-a .098

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.007**	ug/L	165.1	7.778	12.2	56.8
⌊>	Li	6	Li		ug/L		191344.413	196358.1	0.8
⌈	Al	27	Al	**5.084**	ug/L	1.0	12660.058	35458.4	0.9
|	Na	23	Na	**S**	ug/L	S	33003.642	S	S
|	Mg	24	Mg	**114038.864**	ug/L	0.9	1654.541	395617904.6	0.3
|	P	31	P	**5287.009**	ug/L	1.2	5192.057	1600095.7	0.4
|	K	39	K	**6687.956**	ug/L	1.4	483115.804	46091695.5	0.6
|	Ca	44	Ca	**73554.546**	ug/L	1.6	10060.209	16100614.1	1.0
⌊>	Sc	45	Sc		ug/L		1414190.814	1332114.2	0.8
⌈	Fe	54	Fe	**419.594**	ug/L	0.3	20353.921	229867.2	1.0
|	Ti	47	Ti	**14.995**	ug/L	1.8	397.783	10759.6	1.0
|	V	51	V	**5.964**	ug/L	1.7	2008.119	46352.4	1.1
|	Cr	52	Cr	**1.755**	ug/L	1.3	5263.192	15552.9	1.7
|	Mn	55	Mn	**252.761**	ug/L	0.8	3160.350	2492957.5	0.5
|	Co	59	Co	**7.778**	ug/L	3.0	183.335	51512.8	2.7
|	Ni	60	Ni	**17.980**	ug/L	1.3	111.112	24688.0	1.0
|	Cu	65	Cu	**3.703**	ug/L	4.5	113.334	5640.0	4.6
|	Zn	68	Zn	**2.150**	ug/L	2.3	536.177	2158.5	2.4
|	As	75	As	**14.745**	ug/L	2.9	3114.424	20380.2	2.4
|	Se	82	Se	**4.225**	ug/L	6.6	88.890	546.1	5.3
⌊>	Ge	74	Ge		ug/L		1191781.780	1061037.3	0.8
⌈	Sr	88	Sr	**1051.217**	ug/L	1.0	198.650	11988611.3	0.9
|	Mo	95	Mo	**89.137**	ug/L	0.7	26.667	175471.1	0.9
|	Ag	107	Ag	**-0.001**	ug/L	218.3	32.222	23.3	37.8
|	Cd	114	Cd	**0.136**	ug/L	21.4	42.204	420.1	19.5
|	Sn	118	Sn	**0.190**	ug/L	0.9	207.779	826.7	0.7
|	Sb	121	Sb	**2.392**	ug/L	2.3	58.889	10600.6	2.5
|	Ba	137	Ba	**69.220**	ug/L	1.1	64.445	124193.1	1.1
⌊>	Rh	103	Rh		ug/L		1076837.936	913499.8	0.2
⌈	Tl	203	Tl	**0.016**	ug/L	31.1	48.889	118.9	21.0
|	Pb	208	Pb	**-0.001**	ug/L	159.8	2197.844	1911.2	1.1
|	U	238	U	**43.500**	ug/L	1.7	13.333	729000.3	2.0
| >	Lu	175	Lu		ug/L		1052907.074	923233.3	1.9
⌊	Hg	200	Hg	**0.126**	ug/L	36.8	21.111	156.7	33.8

Sample ID: 720-38133-a-2-a

Sample Date/Time: Wednesday, October 19, 2011 15:14:13
Dataset File: C:\elandata\DataSet\101811AM\720-38133-a-2-a .098

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		102.620
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		94.196
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		89.029
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		84.832
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		87.684
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: 580-29240-f-1-a

Sample Description: 1X
Sample Date/Time: Wednesday, October 19, 2011 15:17:22
Number of Replicates: 3
Batch ID: STDS & RL & CCV 00008, ICV 00010, ANALYST = FCW , ICSA & ICSAB 101711
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\580-29240-f-1-a .099

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**-0.006**	ug/L	47.1	7.778	4.4	43.3
⌊>	Li	6	Li		ug/L		191344.413	207009.2	1.3
⌈	Al	27	Al	**981.824**	ug/L	2.0	12660.058	3839347.2	0.8
|	Na	23	Na	**263823.770**	ug/L	2.1	33003.642	1181385730.1	1.3
|	Mg	24	Mg	**2332.897**	ug/L	1.6	1654.541	6821389.7	0.4
|	P	31	P	**5144.685**	ug/L	0.9	5192.057	1312343.0	1.0
|	K	39	K	**56392.799**	ug/L	1.8	483115.804	324664604.5	0.7
|	Ca	44	Ca	**263613.631**	ug/L	2.1	10060.209	48604752.8	0.8
⌊>	Sc	45	Sc		ug/L		1414190.814	1122671.7	1.3
⌈	Fe	54	Fe	**1366.442**	ug/L	0.8	20353.921	709821.9	0.6
|	Ti	47	Ti	**12.220**	ug/L	4.2	397.783	8860.5	3.6
|	V	51	V	**5.731**	ug/L	2.8	2008.119	44747.6	2.5
|	Cr	52	Cr	**2.766**	ug/L	4.3	5263.192	21877.9	3.0
|	Mn	55	Mn	**5.755**	ug/L	2.2	3160.350	59684.4	1.3
|	Co	59	Co	**3.158**	ug/L	1.9	183.335	21073.3	0.7
|	Ni	60	Ni	**24.293**	ug/L	1.0	111.112	33424.6	1.2
|	Cu	65	Cu	**16.701**	ug/L	1.7	113.334	25159.9	1.4
|	Zn	68	Zn	**32.032**	ug/L	0.3	536.177	25598.7	1.4
|	As	75	As	**3.966**	ug/L	10.0	3114.424	7533.6	6.9
|	Se	82	Se	**75.160**	ug/L	1.8	88.890	8413.7	2.2
⌊>	Ge	74	Ge		ug/L		1191781.780	1064307.3	1.2
⌈	Sr	88	Sr	**822.526**	ug/L	1.4	198.650	9682187.5	0.9
|	Mo	95	Mo	**79.912**	ug/L	1.0	26.667	162376.6	1.2
|	Ag	107	Ag	**0.009**	ug/L	47.1	32.222	75.6	30.0
|	Cd	114	Cd	**0.858**	ug/L	2.5	42.204	2541.5	3.5
|	Sn	118	Sn	**20.918**	ug/L	1.2	207.779	74111.7	0.3
|	Sb	121	Sb	**1.763**	ug/L	0.9	58.889	8075.6	0.2
|	Ba	137	Ba	**5.648**	ug/L	0.7	64.445	10511.6	1.6
⌊>	Rh	103	Rh		ug/L		1076837.936	942931.2	1.0
⌈	Tl	203	Tl	**0.006**	ug/L	19.7	48.889	72.2	7.1
|	Pb	208	Pb	**15.107**	ug/L	0.6	2197.844	238605.9	0.9
|	U	238	U	**0.047**	ug/L	23.1	13.333	826.7	22.5
| >	Lu	175	Lu		ug/L		1052907.074	958021.8	0.6
⌊	Hg	200	Hg	**0.352**	ug/L	16.5	21.111	418.9	16.1

Sample ID: 580-29240-f-1-a

Sample Date/Time: Wednesday, October 19, 2011 15:17:22
Dataset File: C:\elandata\DataSet\101811AM\580-29240-f-1-a .099

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		108.187
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		79.386
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		89.304
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		87.565
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		90.988
⌊	Hg	200	Hg		

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 3

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 15:20:31
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.100

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**47.595**	ug/L	1.8	7.778	30334.4	1.6
⌊>	Li	6	Li		ug/L		191344.413	202179.7	1.4
⌈	Al	27	Al	**508.319**	ug/L	2.1	12660.058	2325922.1	0.8
|	Na	23	Na	**5167.783**	ug/L	1.0	33003.642	27046385.6	1.6
|	Mg	24	Mg	**5145.505**	ug/L	1.6	1654.541	17560661.5	0.6
|	P	31	P	**4930.825**	ug/L	0.9	5192.057	1468442.3	1.3
|	K	39	K	**5167.641**	ug/L	3.0	483115.804	35130138.0	1.5
|	Ca	44	Ca	**4688.731**	ug/L	2.1	10060.209	1018280.5	0.8
⌊>	Sc	45	Sc		ug/L		1414190.814	1310568.5	1.9
⌈	Fe	54	Fe	**5293.120**	ug/L	2.1	20353.921	2717194.8	0.8
|	Ti	47	Ti	**52.124**	ug/L	2.4	397.783	36906.5	1.0
|	V	51	V	**51.388**	ug/L	0.9	2008.119	389869.6	1.3
|	Cr	52	Cr	**51.542**	ug/L	2.8	5263.192	327156.3	1.3
|	Mn	55	Mn	**52.122**	ug/L	1.9	3160.350	521710.6	1.0
|	Co	59	Co	**51.237**	ug/L	2.0	183.335	341964.5	0.5
|	Ni	60	Ni	**51.964**	ug/L	1.2	111.112	71911.7	0.4
|	Cu	65	Cu	**50.196**	ug/L	0.4	113.334	75983.8	1.1
|	Zn	68	Zn	**50.796**	ug/L	2.5	536.177	40604.8	1.0
|	As	75	As	**50.027**	ug/L	1.3	3114.424	63183.5	2.7
|	Se	82	Se	**50.078**	ug/L	2.2	88.890	5673.4	0.9
⌊>	Ge	74	Ge		ug/L		1191781.780	1072279.0	1.5
⌈	Sr	88	Sr	**50.546**	ug/L	1.1	198.650	602948.9	0.6
|	Mo	95	Mo	**50.358**	ug/L	1.2	26.667	103668.1	0.6
|	Ag	107	Ag	**50.802**	ug/L	1.5	32.222	258230.8	0.6
|	Cd	114	Cd	**50.018**	ug/L	1.0	42.204	147937.8	2.0
|	Sn	118	Sn	**49.873**	ug/L	1.2	207.779	178769.6	1.7
|	Sb	121	Sb	**50.762**	ug/L	1.3	58.889	234153.7	1.7
|	Ba	137	Ba	**49.438**	ug/L	2.6	64.445	92759.1	1.6
⌊>	Rh	103	Rh		ug/L		1076837.936	955268.3	0.9
⌈	Tl	203	Tl	**49.541**	ug/L	0.9	48.889	242008.6	1.6
|	Pb	208	Pb	**51.056**	ug/L	1.8	2197.844	809492.6	0.6
|	U	238	U	**51.938**	ug/L	2.6	13.333	912014.5	0.7
| >	Lu	175	Lu		ug/L		1052907.074	967625.2	2.0
⌊	Hg	200	Hg	**2.516**	ug/L	3.7	21.111	2899.2	2.3

Sample ID: QC Std 3

Sample Date/Time: Wednesday, October 19, 2011 15:20:31
Dataset File: C:\elandata\DataSet\101811AM\QC Std 3.100

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be	95.190	
⌊>	Li	6	Li		105.663
⌈	Al	27	Al	101.664	
|	Na	23	Na	103.356	
|	Mg	24	Mg	102.910	
|	P	31	P	98.617	
|	K	39	K	103.353	
|	Ca	44	Ca	93.775	
⌊>	Sc	45	Sc		92.673
⌈	Fe	54	Fe	105.862	
|	Ti	47	Ti	104.248	
|	V	51	V	102.776	
|	Cr	52	Cr	103.084	
|	Mn	55	Mn	104.244	
|	Co	59	Co	102.475	
|	Ni	60	Ni	103.927	
|	Cu	65	Cu	100.392	
|	Zn	68	Zn	101.591	
|	As	75	As	100.053	
|	Se	82	Se	100.156	
⌊>	Ge	74	Ge		89.973
⌈	Sr	88	Sr	101.092	
|	Mo	95	Mo	100.717	
|	Ag	107	Ag	101.603	
|	Cd	114	Cd	100.036	
|	Sn	118	Sn	99.745	
|	Sb	121	Sb	101.524	
|	Ba	137	Ba	98.877	
⌊>	Rh	103	Rh		88.711
⌈	Tl	203	Tl	99.083	
|	Pb	208	Pb	102.113	
|	U	238	U	103.876	
|>	Lu	175	Lu		91.900
⌊	Hg	200	Hg	100.653	

TA Seattle Perkin Elmer Elan 6100 ICP-MS 200.8 / 6020 (SEA# 26) (FCW)

Sample ID: QC Std 4

Sample Description:
Sample Date/Time: Wednesday, October 19, 2011 15:23:42
Number of Replicates: 3
Batch ID:
Method File: C:\elandata\Method\0000000000-ICPMS.mth
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.101

	Analyte	Mass	Analyte	**Conc. Mean**	Units	Conc. RSD	Blank Intensity	Meas. Intens. Mean	Meas. Intens. RSD
⌈	Be	9	Be	**0.001**	ug/L	576.6	7.778	8.9	57.3
⌊>	Li	6	Li		ug/L		191344.413	197743.0	2.3
⌈	Al	27	Al	**0.486**	ug/L	13.2	12660.058	13837.8	1.7
|	Na	23	Na	**1.316**	ug/L	34.0	33003.642	37165.0	5.3
|	Mg	24	Mg	**0.332**	ug/L	35.9	1654.541	2644.7	14.2
|	P	31	P	**4.221**	ug/L	19.7	5192.057	6015.7	2.0
|	K	39	K	**3.995**	ug/L	34.2	483115.804	470856.3	0.6
|	Ca	44	Ca	**-8.075**	ug/L	13.2	10060.209	7526.4	2.6
⌊>	Sc	45	Sc		ug/L		1414190.814	1300751.1	2.2
⌈	Fe	54	Fe	**3.314**	ug/L	44.1	20353.921	20003.5	3.4
|	Ti	47	Ti	**-0.151**	ug/L	25.2	397.783	252.2	10.7
|	V	51	V	**-0.150**	ug/L	201.0	2008.119	675.6	338.5
|	Cr	52	Cr	**0.033**	ug/L	70.5	5263.192	4944.2	3.1
|	Mn	55	Mn	**0.209**	ug/L	6.8	3160.350	4927.5	2.9
|	Co	59	Co	**0.011**	ug/L	20.0	183.335	235.6	6.4
|	Ni	60	Ni	**0.005**	ug/L	441.5	111.112	106.7	27.8
|	Cu	65	Cu	**0.005**	ug/L	501.3	113.334	108.9	31.9
|	Zn	68	Zn	**0.159**	ug/L	11.9	536.177	608.3	2.3
|	As	75	As	**-0.115**	ug/L	59.2	3114.424	2663.6	3.3
|	Se	82	Se	**0.194**	ug/L	47.6	88.890	101.7	9.8
⌊>	Ge	74	Ge		ug/L		1191781.780	1072398.5	0.4
⌈	Sr	88	Sr	**0.006**	ug/L	67.5	198.650	244.3	18.6
|	Mo	95	Mo	**0.072**	ug/L	35.9	26.667	171.1	31.1
|	Ag	107	Ag	**0.003**	ug/L	38.8	32.222	42.2	12.1
|	Cd	114	Cd	**0.000**	ug/L	6922.0	42.204	37.5	41.0
|	Sn	118	Sn	**0.149**	ug/L	5.2	207.779	714.5	3.0
|	Sb	121	Sb	**0.045**	ug/L	19.3	58.889	261.1	16.0
|	Ba	137	Ba	**-0.008**	ug/L	53.8	64.445	41.1	20.4
⌊>	Rh	103	Rh		ug/L		1076837.936	952008.0	1.0
⌈	Tl	203	Tl	**0.345**	ug/L	19.9	48.889	1691.2	18.8
|	Pb	208	Pb	**0.004**	ug/L	78.0	2197.844	2043.4	3.0
|	U	238	U	**0.026**	ug/L	4.3	13.333	454.5	3.6
| >	Lu	175	Lu		ug/L		1052907.074	946246.2	0.8
⌊	Hg	200	Hg	**0.014**	ug/L	90.4	21.111	34.4	40.3

Sample ID: QC Std 4

Sample Date/Time: Wednesday, October 19, 2011 15:23:42
Dataset File: C:\elandata\DataSet\101811AM\QC Std 4.101

QC Calculated Values

	Analyte	Mass	Analyte	QC Std % Recovery	Int Std % Recovery
⌈	Be	9	Be		
⌊>	Li	6	Li		103.344
⌈	Al	27	Al		
|	Na	23	Na		
|	Mg	24	Mg		
|	P	31	P		
|	K	39	K		
|	Ca	44	Ca		
⌊>	Sc	45	Sc		91.978
⌈	Fe	54	Fe		
|	Ti	47	Ti		
|	V	51	V		
|	Cr	52	Cr		
|	Mn	55	Mn		
|	Co	59	Co		
|	Ni	60	Ni		
|	Cu	65	Cu		
|	Zn	68	Zn		
|	As	75	As		
|	Se	82	Se		
⌊>	Ge	74	Ge		89.983
⌈	Sr	88	Sr		
|	Mo	95	Mo		
|	Ag	107	Ag		
|	Cd	114	Cd		
|	Sn	118	Sn		
|	Sb	121	Sb		
|	Ba	137	Ba		
⌊>	Rh	103	Rh		88.408
⌈	Tl	203	Tl		
|	Pb	208	Pb		
|	U	238	U		
|>	Lu	175	Lu		89.870
⌊	Hg	200	Hg		

Step	Mass	Element	r	b(blank)	DL	BEC	Unit
1	6	Li	0.0000	--- ---	---	ug/l	
1	7	Li	0.0000	--- ---	---	ug/l	
1	9	Be	0.9999	0.000 ---	0.000	ug/l	
1	23	Na	1.0000	3.771 7.579	70.93	ug/l	
1	24	Mg	0.9999	7.610E-03	1.134E-01	2.447E-01	ug/l
1	27	Al	0.9998	1.199E-01	3.737E-01	6.364	ug/l
1	31	P	1.0000	2.964E-02	1.659 20.84	ug/l	
1	39	K	1.0000	3.070 10.92	89.98	ug/l	
1	44	Ca	1.0000	3.356E-02	1.754 20.82	ug/l	
1	45	Sc	0.0000	--- ---	---	ug/l	
1	47	Ti	1.0000	2.541E-04	2.898E-02	2.942E-02	ug/l
1	51	V	1.0000	6.143E-02	3.237E-02	3.055E-01	ug/l
1	52	Cr	1.0000	2.755E-02	2.143E-02	1.220E-01	ug/l
1	57	Fe	1.0000	3.561E-03	7.920E-01	1.478	ug/l
1	59	Co	1.0000	1.306E-03	1.343E-03	4.155E-03	ug/l
1	60	Ni	1.0000	1.297E-03	1.898E-02	3.378E-02	ug/l
1	63	Cu	1.0000	3.997E-03	8.634E-03	4.061E-02	ug/l
1	66	Zn	1.0000	4.886E-03	8.675E-02	2.343E-01	ug/l
1	74	Ge	0.0000	--- ---	---	ug/l	
1	78	Se	1.0000	1.129E-03	9.446E-02	7.197E-01	ug/l
1	88	Sr	1.0000	7.851E-03	2.214E-02	8.252E-02	ug/l
1	95	Mo	1.0000	9.770E-04	1.367E-02	3.105E-02	ug/l
1	103	Rh	0.0000	--- ---	---	ug/l	
1	109	Ag	0.9999	5.158E-04	4.702E-03	5.573E-03	ug/l
1	111	Cd	1.0000	2.727E-04	1.860E-02	1.612E-02	ug/l
1	118	Sn	1.0000	1.560E-03	1.580E-02	4.174E-02	ug/l
1	135	Ba	1.0000	2.635E-04	9.369E-03	2.633E-02	ug/l
1	165	Ho	0.0000	--- ---	---	ug/l	
1	175	Lu	0.0000	--- ---	---	ug/l	
1	200	Hg	1.0000	6.411E-04	6.403E-03	1.140E-02	ug/l
1	205	Tl	1.0000	1.347E-02	2.049E-02	3.106E-02	ug/l
1	208	Pb	1.0000	2.683E-01	6.903E-02	4.141E-01	ug/l
1	209	Bi	0.0000	--- ---	---	ug/l	
1	238	U	0.9998	7.130E-04	7.040E-04	1.111E-03	ug/l

TA Seattle Calibration Blank QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#
Date Acquired: Oct 18 2011 02:52 pm Acq. Method: 00He_ALL.M
Sample Name: STD0 Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711
Current Method: C:\ICPCHEM\1\METHODS\101811.M Tune # Name
Operator: FCW ICP-MS ID#SEA44 1 c:\icpchem\1\7500\he.u
Calibration File: C:\ICPCHEM\1\CALIB\101811.C 2 C:\ICPCHEM\1\7500\
Last Cal. Update: Oct 19 2011 09:13 am 3 C:\ICPCHEM\1\7500\
ISTD Ref File : --- Sample Type: CalBlk

QC&ISTD Elements

Element		Tune	CPS Mean		SD	RSD(%)
6	Li	1	240429.4	P	1250.00	0.52
7	Li	1	19094.3	P	454.30	2.38
9	Be	1	0.0	P	0.00	0.00
23	Na	1	197177.4	P	2118.00	1.07
24	Mg	1	398.3	P	64.49	16.19
27	Al	1	6271.6	P	210.90	3.36
31	P	1	1550.1	P	40.01	2.58
39	K	1	160489.9	P	1818.00	1.13
44	Ca	1	1755.0	P	35.33	2.01
45	Sc	1	2615905.0	A	81350.00	3.11
47	Ti	1	13.3	P	4.51	33.82
51	V	1	3212.1	P	63.33	1.97
52	Cr	1	1440.1	P	65.01	4.51
55	Mn	1		P		
56	Fe	1		P		
57	Fe	1	393.3	P	70.06	17.81
59	Co	1	68.3	P	7.64	11.18
60	Ni	1	143.3	P	27.54	19.21
63	Cu	1	441.7	P	33.29	7.54
66	Zn	1	540.0	P	70.00	12.96
74	Ge	1	5523507.0	A	37190.00	0.67
75	As	1		P		
78	Se	1	124.7	P	4.91	3.94
88	Sr	1	867.6	P	81.93	9.44
95	Mo	1	148.3	P	22.55	15.20
99	(Mo)	1		P		
103	Rh	1	7586761.0	A	92560.00	1.22
106	(Cd)	1		P		
108	(Cd)	1		P		
109	Ag	1	78.3	P	22.55	28.79
111	Cd	1	41.3	P	15.47	37.47
118	Sn	1	236.7	P	29.30	12.38
123	Sb	1		P		
135	Ba	1	40.0	P	5.00	12.50
165	Ho	1	3138645.0	A	98980.00	3.15
175	Lu	1	2573575.0	A	53160.00	2.07
200	Hg	1	33.0	P	6.24	18.92
205	Tl	1	695.0	P	162.60	23.39
206	Pb	1		P		
207	Pb	1		P		
208	Pb	1	13800.2	P	496.00	3.59
209	Bi	1	3147536.0	A	59260.00	1.88
238	U	1	36.7	P	7.64	20.83

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\101811PM.B\005CALS.D\005CALS.D#

Date Acquired: Oct 18 2011 02:57 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD1**

Vial Number: 1305

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\101811.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\101811.C

1 icpchem\1\7500\he.u

Last Cal. Update: Oct 19 2011 09:13 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	58.7	P	6.66	11.35
23	Na	45	1	282397.6	P	708.90	0.25
24	Mg	45	1	18249.8	P	476.60	2.61
27	Al	45	1	6776.9	P	150.30	2.22
31	P	45	1	2391.9	P	134.80	5.64
39	K	45	1	193624.2	P	1621.00	0.84
44	Ca	45	1	2670.2	P	32.45	1.22
47	Ti	45	1	52.0	P	5.20	9.99
51	V	45	1	4217.5	P	254.80	6.04
52	Cr	45	1	2763.7	P	168.10	6.08
57	Fe	74	1	3487.2	P	28.44	0.82
59	Co	45	1	1751.8	P	72.36	4.13
60	Ni	74	1	1221.8	P	20.82	1.70
63	Cu	74	1	4057.4	P	25.16	0.62
66	Zn	74	1	3365.5	P	117.60	3.49
78	Se	74	1	135.7	P	7.22	5.32
88	Sr	74	1	2090.3	P	153.60	7.35
95	Mo	103	1	658.4	P	33.29	5.06
109	Ag	103	1	1626.8	P	41.94	2.58
111	Cd	103	1	283.4	P	55.68	19.65
118	Sn	103	1	1858.5	P	46.47	2.50
135	Ba	103	1	288.3	P	62.12	21.54
200	Hg	175	1	54.3	P	6.66	12.25
205	Tl	175	1	3170.5	P	67.29	2.12
208	Pb	175	1	18746.2	P	227.90	1.22
238	U	175	1	3445.6	P	75.68	2.20

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	239487	0.60	240400	99.6	30 - 125	
45	Sc	1	2621178	0.76	2616000	100.2	30 - 125	
74	Ge	1	5583940	1.03	5524000	101.1	30 - 125	
103	Rh	1	7537703	1.56	7587000	99.4	30 - 125	
165	Ho	1	3141291	1.41	3139000	100.1	30 - 125	
175	Lu	1	2587930	2.24	2574000	100.5	30 - 125	
209	Bi	1	3161185	2.14	3148000	100.4	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\101811PM.B\006CALS.D\006CALS.D#

Date Acquired: Oct 18 2011 03:01 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD2**

Vial Number: 1304

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\101811.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\101811.C

1 icpchem\1\7500\he.u

Last Cal. Update: Oct 19 2011 09:13 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	536.0	P	12.17	2.27
23	Na	45	1	502743.2	P	1372.00	0.27
24	Mg	45	1	171049.0	P	629.00	0.37
27	Al	45	1	14825.5	P	491.40	3.31
31	P	45	1	8933.3	P	18.00	0.20
39	K	45	1	354861.2	P	1631.00	0.46
44	Ca	45	1	10211.9	P	127.30	1.25
47	Ti	45	1	450.0	P	13.00	2.89
51	V	45	1	13549.1	P	347.90	2.57
52	Cr	45	1	13145.4	P	102.60	0.78
57	Fe	74	1	26730.2	P	243.20	0.91
59	Co	45	1	16641.2	P	190.20	1.14
60	Ni	74	1	4834.4	P	100.70	2.08
63	Cu	74	1	12611.5	P	255.80	2.03
66	Zn	74	1	3665.6	P	99.90	2.73
78	Se	74	1	285.2	P	1.76	0.62
88	Sr	74	1	11210.5	P	151.10	1.35
95	Mo	103	1	4704.3	P	262.90	5.59
109	Ag	103	1	14378.6	P	138.70	0.96
111	Cd	103	1	2496.1	P	138.20	5.54
118	Sn	103	1	6285.1	P	62.15	0.99
135	Ba	103	1	1556.8	P	108.70	6.98
200	Hg	175	1	191.3	P	8.39	4.38
205	Tl	175	1	24225.6	P	399.00	1.65
208	Pb	175	1	48146.3	P	769.20	1.60
238	U	175	1	32914.2	P	290.90	0.88

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	239738	1.30	240400	99.7	30 - 125	
45	Sc	1	2660912	2.48	2616000	101.7	30 - 125	
74	Ge	1	5520328	1.21	5524000	99.9	30 - 125	
103	Rh	1	7597871	0.86	7587000	100.1	30 - 125	
165	Ho	1	3192039	1.39	3139000	101.7	30 - 125	
175	Lu	1	2598151	0.57	2574000	100.9	30 - 125	
209	Bi	1	3184282	1.80	3148000	101.2	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\101811PM.B\007CALS.D\007CALS.D#

Date Acquired: Oct 18 2011 03:05 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD3**

Vial Number: 1303

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\101811.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\101811.C

1 icpchem\1\7500\he.u

Last Cal. Update: Oct 19 2011 09:13 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	5563.2	P	95.68	1.72
23	Na	45	1	3059796.0	A	24040.00	0.79
24	Mg	45	1	1697105.0	A	21800.00	1.28
27	Al	45	1	107565.8	P	1391.00	1.29
31	P	45	1	75180.5	P	223.50	0.30
39	K	45	1	2017475.0	A	14170.00	0.70
44	Ca	45	1	87149.3	P	382.50	0.44
47	Ti	45	1	4483.5	P	86.59	1.93
51	V	45	1	108852.8	P	569.00	0.52
52	Cr	45	1	122122.4	P	977.70	0.80
57	Fe	74	1	272393.8	P	360.90	0.13
59	Co	45	1	170717.9	P	2421.00	1.42
60	Ni	74	1	44227.5	P	886.30	2.00
63	Cu	74	1	115193.5	P	913.40	0.79
66	Zn	74	1	24721.2	P	122.10	0.49
78	Se	74	1	1860.0	P	8.69	0.47
88	Sr	74	1	107069.8	P	957.70	0.89
95	Mo	103	1	46589.4	P	484.00	1.04
109	Ag	103	1	143560.1	P	1136.00	0.79
111	Cd	103	1	25068.8	P	388.80	1.55
118	Sn	103	1	55943.1	P	454.90	0.81
135	Ba	103	1	15012.9	P	502.60	3.35
200	Hg	175	1	1470.1	P	12.29	0.84
205	Tl	175	1	223759.8	P	6509.00	2.91
208	Pb	175	1	357871.4	P	2824.00	0.79
238	U	175	1	338841.6	P	1941.00	0.57

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	240304	0.32	240400	100.0	30 - 125	
45	Sc	1	2650980	2.42	2616000	101.3	30 - 125	
74	Ge	1	5571846	0.55	5524000	100.9	30 - 125	
103	Rh	1	7574060	0.19	7587000	99.8	30 - 125	
165	Ho	1	3145007	1.61	3139000	100.2	30 - 125	
175	Lu	1	2588259	0.88	2574000	100.6	30 - 125	
209	Bi	1	3144920	1.60	3148000	99.9	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\101811PM.B\008CALS.D\008CALS.D#

Date Acquired: Oct 18 2011 03:10 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD4**

Vial Number: 1302

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\101811.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\101811.C

1 icpchem\1\7500\he.u

Last Cal. Update: Oct 19 2011 09:13 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	28400.1	P	455.70	1.60
23	Na	45	1	14440320.0	A	108200.00	0.75
24	Mg	45	1	8332214.0	A	120400.00	1.45
27	Al	45	1	516834.5	P	3045.00	0.59
31	P	45	1	375782.8	P	2877.00	0.77
39	K	45	1	9187630.0	A	112000.00	1.22
44	Ca	45	1	427797.0	P	2192.00	0.51
47	Ti	45	1	22749.9	P	195.50	0.86
51	V	45	1	533050.6	P	2157.00	0.40
52	Cr	45	1	595700.5	P	4676.00	0.78
57	Fe	74	1	1348073.0	A	14880.00	1.10
59	Co	45	1	820230.7	A	20400.00	2.49
60	Ni	74	1	211419.9	P	1282.00	0.61
63	Cu	74	1	552531.3	P	1401.00	0.25
66	Zn	74	1	116415.0	P	471.70	0.41
78	Se	74	1	8767.1	P	52.46	0.60
88	Sr	74	1	522814.4	P	2510.00	0.48
95	Mo	103	1	232696.4	P	355.80	0.15
109	Ag	103	1	699063.3	P	4750.00	0.68
111	Cd	103	1	125414.2	P	1512.00	1.21
118	Sn	103	1	275510.1	P	1614.00	0.59
135	Ba	103	1	74966.3	P	944.90	1.26
200	Hg	175	1	7064.5	P	179.00	2.53
205	Tl	175	1	1115330.0	A	41570.00	3.73
208	Pb	175	1	1677067.0	P	13930.00	0.83
238	U	175	1	1679050.0	A	5376.00	0.32

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	235627	1.28	240400	98.0	30 - 125	
45	Sc	1	2633484	1.01	2616000	100.7	30 - 125	
74	Ge	1	5572014	0.95	5524000	100.9	30 - 125	
103	Rh	1	7401708	0.67	7587000	97.6	30 - 125	
165	Ho	1	3141009	1.54	3139000	100.1	30 - 125	
175	Lu	1	2543382	1.46	2574000	98.8	30 - 125	
209	Bi	1	3068148	2.35	3148000	97.5	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Calibration Standard QC Report 200.8/6020 ICP-MS 7500ce

Data File: C:\ICPCHEM\1\DATA\101811PM.B\009CALS.D\009CALS.D#

Date Acquired: Oct 18 2011 03:14 pm

Acq. Method: 00He_ALL.M

Sample Name: **STD5**

Vial Number: 1301

Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Operator: FCW ICP-MS ID#SEA44

Current Method: C:\ICPCHEM\1\METHODS\101811.M

Tune # Name

Calibration File: C:\ICPCHEM\1\CALIB\101811.C

1 icpchem\1\7500\he.u

Last Cal. Update: Oct 19 2011 09:13 am

2 C:\ICPCHEM\1\7500\

ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

3 C:\ICPCHEM\1\7500\

QC&ISTD Elements

Sample Type: CalStd

Element		IS	T#	CPS Mean		SD	RSD(%)
9	Be	6	1	56969.1	P	639.30	1.12
23	Na	45	1	28338140.0	A	103300.00	0.36
24	Mg	45	1	16450810.0	A	213200.00	1.30
27	Al	45	1	1000311.0	A	21690.00	2.17
31	P	45	1	758025.8	A	19010.00	2.51
39	K	45	1	18275480.0	A	249800.00	1.37
44	Ca	45	1	858070.9	A	19910.00	2.32
47	Ti	45	1	45926.4	P	109.10	0.24
51	V	45	1	1071943.0	A	4814.00	0.45
52	Cr	45	1	1201822.0	A	10080.00	0.84
57	Fe	74	1	2640785.0	A	14570.00	0.55
59	Co	45	1	1674338.0	A	16860.00	1.01
60	Ni	74	1	422539.4	P	1530.00	0.36
63	Cu	74	1	1078186.0	A	14920.00	1.38
66	Zn	74	1	229371.5	P	1734.00	0.76
78	Se	74	1	17379.8	P	170.30	0.98
88	Sr	74	1	1048662.0	A	10390.00	0.99
95	Mo	103	1	466736.9	P	2643.00	0.57
109	Ag	103	1	1364079.0	A	13710.00	1.01
111	Cd	103	1	250678.7	P	1500.00	0.60
118	Sn	103	1	554711.4	P	3127.00	0.56
135	Ba	103	1	147883.2	P	1301.00	0.88
200	Hg	175	1	14320.4	P	70.90	0.50
205	Tl	175	1	2190328.0	A	59310.00	2.71
208	Pb	175	1	3284125.0	A	13590.00	0.41
238	U	175	1	3223256.0	A	14380.00	0.45

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6	Li	1	230944	0.35	240400	96.1	30 - 125	
45	Sc	1	2657766	1.29	2616000	101.6	30 - 125	
74	Ge	1	5486171	1.19	5524000	99.3	30 - 125	
103	Rh	1	7409296	1.76	7587000	97.7	30 - 125	
165	Ho	1	3090409	1.69	3139000	98.5	30 - 125	
175	Lu	1	2530798	1.29	2574000	98.3	30 - 125	
209	Bi	1	3014319	0.76	3148000	95.8	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **:Max. Number of Failures Allowed**

0 :ISTD Failures **:Max. Number of ISTD Failures Allowed**

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\010SMPL.D\010SMPL.D#
Date Acquired: Oct 18 2011 03:18 pm Acq. Method: 00He_ALL.M
Sample Name: ICV Vial Number: 1105
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**39.240**	ug/l	39.24	1.3	5000	6	P	
23	**Na**	1	**4011.000**	ug/l	4,011.00	2.7	500000	45	A	
24	**Mg**	1	**3977.000**	ug/l	3,977.00	3.1	500000	45	A	
27	**Al**	1	**407.300**	ug/l	407.30	3.3	500000	45	P	
31	**P**	1	**3984.000**	ug/l	3,984.00	2.3	500000	45	P	
39	**K**	1	**4055.000**	ug/l	4,055.00	2.6	500000	45	A	
44	**Ca**	1	**3997.000**	ug/l	3,997.00	2.3	500000	45	P	
47	**Ti**	1	**40.150**	ug/l	40.15	3.1	5000	45	P	
51	**V**	1	**39.560**	ug/l	39.56	1.8	5000	45	P	
52	**Cr**	1	**39.750**	ug/l	39.75	2.7	5000	45	P	
57	**Fe**	1	**4093.000**	ug/l	4,093.00	0.9	500000	74	A	
59	**Co**	1	**40.190**	ug/l	40.19	3.0	5000	45	P	
60	**Ni**	1	**40.450**	ug/l	40.45	0.8	5000	74	P	
63	**Cu**	1	**40.970**	ug/l	40.97	0.2	5000	74	P	
66	**Zn**	1	**40.620**	ug/l	40.62	1.4	5000	74	P	
78	**Se**	1	**39.590**	ug/l	39.59	0.4	5000	74	P	
88	**Sr**	1	**39.830**	ug/l	39.83	0.1	5000	74	P	
95	**Mo**	1	**39.790**	ug/l	39.79	0.8	5000	103	P	
109	**Ag**	1	**40.800**	ug/l	40.80	2.1	200	103	P	
111	**Cd**	1	**39.750**	ug/l	39.75	1.8	5000	103	P	
118	**Sn**	1	**40.210**	ug/l	40.21	1.3	5000	103	P	
135	**Ba**	1	**39.940**	ug/l	39.94	2.4	5000	103	P	
200	**Hg**	1	**1.947**	ug/l	1.95	0.3	50	175	P	
205	**Tl**	1	**40.030**	ug/l	40.03	4.0	5000	175	P	
208	**Pb**	1	**39.810**	ug/l	39.81	0.7	5000	175	P	
238	**U**	1	**40.220**	ug/l	40.22	1.6	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	236530	1.26	240400	**98.4**	30	-	125	
45	Sc	1	2690443	3.28	2616000	**102.8**	30	-	125	
74	Ge	1	5572856	0.36	5524000	**100.9**	30	-	125	
103	Rh	1	7495837	1.49	7587000	**98.8**	30	-	125	
165	Ho	1	3127454	2.02	3139000	**99.6**	30	-	125	
175	Lu	1	2597622	0.49	2574000	**100.9**	30	-	125	
209	Bi	1	3056335	1.81	3148000	**97.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\011SMPL.D\011SMPL.D#
Date Acquired: Oct 18 2011 03:22 pm Acq. Method: 00He_ALL.M
Sample Name: ICB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.009**	ug/l	0.01	11.7	5000	6	P	
23	**Na**	1	**-1.890**	ug/l	-1.89	59.8	500000	45	P	
24	**Mg**	1	**0.093**	ug/l	0.09	5.6	500000	45	P	
27	**Al**	1	**-0.103**	ug/l	-0.10	291.4	500000	45	P	
31	**P**	1	**0.365**	ug/l	0.37	133.3	500000	45	P	
39	**K**	1	**0.883**	ug/l	0.88	184.0	500000	45	P	
44	**Ca**	1	**0.522**	ug/l	0.52	31.0	500000	45	P	
47	**Ti**	1	**0.025**	ug/l	0.03	49.7	5000	45	P	
51	**V**	1	**-0.055**	ug/l	-0.06	38.2	5000	45	P	
52	**Cr**	1	**-0.002**	ug/l	0.00	200.6	5000	45	P	
57	**Fe**	1	**1.424**	ug/l	1.42	17.0	500000	74	P	
59	**Co**	1	**0.003**	ug/l	0.00	13.2	5000	45	P	
60	**Ni**	1	**-0.003**	ug/l	0.00	223.2	5000	74	P	
63	**Cu**	1	**0.006**	ug/l	0.01	21.1	5000	74	P	
66	**Zn**	1	**-0.006**	ug/l	-0.01	344.5	5000	74	P	
78	**Se**	1	**-0.042**	ug/l	-0.04	39.1	5000	74	P	
88	**Sr**	1	**0.003**	ug/l	0.00	64.6	5000	74	P	
95	**Mo**	1	**0.092**	ug/l	0.09	16.6	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	89.9	200	103	P	
111	**Cd**	1	**0.009**	ug/l	0.01	59.9	5000	103	P	
118	**Sn**	1	**0.277**	ug/l	0.28	13.7	5000	103	P	
135	**Ba**	1	**0.011**	ug/l	0.01	60.9	5000	103	P	
200	**Hg**	1	**0.023**	ug/l	0.02	15.3	50	175	P	
205	**Tl**	1	**0.535**	ug/l	0.53	10.3	5000	175	P	
208	**Pb**	1	**0.003**	ug/l	0.00	195.1	5000	175	P	
238	**U**	1	**0.020**	ug/l	0.02	20.1	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	243218	1.24	240400	**101.2**	30	-	125	
45	Sc	1	2686617	1.99	2616000	**102.7**	30	-	125	
74	Ge	1	5722055	0.27	5524000	**103.6**	30	-	125	
103	Rh	1	7802073	0.17	7587000	**102.8**	30	-	125	
165	Ho	1	3189114	2.17	3139000	**101.6**	30	-	125	
175	Lu	1	2624943	1.75	2574000	**102.0**	30	-	125	
209	Bi	1	3158505	2.59	3148000	**100.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\012SMPL.D\012SMPL.D#
Date Acquired: Oct 18 2011 03:27 pm Acq. Method: 00He_ALL.M
Sample Name: CRI Vial Number: 1107
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.899**	ug/l	1.90	1.4	5000	6	P	
23	Na	1	**207.800**	ug/l	207.80	2.1	500000	45	A	
24	Mg	1	**216.200**	ug/l	216.20	1.8	500000	45	P	
27	Al	1	**21.050**	ug/l	21.05	3.4	500000	45	P	
31	P	1	**202.600**	ug/l	202.60	0.8	500000	45	P	
39	K	1	**216.500**	ug/l	216.50	2.4	500000	45	P	
44	Ca	1	**206.800**	ug/l	206.80	1.5	500000	45	P	
47	Ti	1	**2.145**	ug/l	2.15	0.5	5000	45	P	
51	V	1	**2.006**	ug/l	2.01	2.8	5000	45	P	
52	Cr	1	**2.087**	ug/l	2.09	2.0	5000	45	P	
57	Fe	1	**207.100**	ug/l	207.10	1.7	500000	74	P	
59	Co	1	**2.140**	ug/l	2.14	2.5	5000	45	P	
60	Ni	1	**2.110**	ug/l	2.11	0.4	5000	74	P	
63	Cu	1	**2.124**	ug/l	2.12	1.6	5000	74	P	
66	Zn	1	**2.106**	ug/l	2.11	6.7	5000	74	P	
78	Se	1	**1.932**	ug/l	1.93	2.6	5000	74	P	
88	Sr	1	**2.061**	ug/l	2.06	1.0	5000	74	P	
95	Mo	1	**2.005**	ug/l	2.01	1.4	5000	103	P	
109	Ag	1	**2.115**	ug/l	2.12	0.3	200	103	P	
111	Cd	1	**2.088**	ug/l	2.09	7.4	5000	103	P	
118	Sn	1	**2.097**	ug/l	2.10	1.9	5000	103	P	
135	Ba	1	**2.082**	ug/l	2.08	1.9	5000	103	P	
200	Hg	1	**0.117**	ug/l	0.12	2.5	50	175	P	
205	Tl	1	**2.196**	ug/l	2.20	4.4	5000	175	P	
208	Pb	1	**2.141**	ug/l	2.14	2.4	5000	175	P	
238	U	1	**2.116**	ug/l	2.12	1.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	244302	0.55	240400	**101.6**	30	-	125	
45	Sc	1	2681435	2.03	2616000	**102.5**	30	-	125	
74	Ge	1	5662762	2.33	5524000	**102.5**	30	-	125	
103	Rh	1	7702560	0.84	7587000	**101.5**	30	-	125	
165	Ho	1	3170348	1.73	3139000	**101.0**	30	-	125	
175	Lu	1	2570544	1.38	2574000	**99.9**	30	-	125	
209	Bi	1	3170603	2.50	3148000	**100.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\013SMPL.D\013SMPL.D#
Date Acquired: Oct 18 2011 03:31 pm Acq. Method: 00He_ALL.M
Sample Name: ICSA Vial Number: 1101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.003**	ug/l	0.00	50.0	5000	6	P	
23	Na	1	**51000.000**	ug/l	51,000.00	2.5	500000	45	A	
24	Mg	1	**20320.000**	ug/l	20,320.00	1.3	500000	45	A	
27	Al	1	**19490.000**	ug/l	19,490.00	2.1	500000	45	A	
31	P	1	**20690.000**	ug/l	20,690.00	0.8	500000	45	A	
39	K	1	**20070.000**	ug/l	20,070.00	1.3	500000	45	A	
44	Ca	1	**58100.000**	ug/l	58,100.00	1.0	500000	45	A	
47	Ti	1	**405.400**	ug/l	405.40	1.7	5000	45	P	
51	V	1	**-0.204**	ug/l	-0.20	4.1	5000	45	P	
52	Cr	1	**1.218**	ug/l	1.22	2.4	5000	45	P	
57	Fe	1	**50160.000**	ug/l	50,160.00	1.5	500000	74	A	
59	Co	1	**0.012**	ug/l	0.01	8.3	5000	45	P	
60	Ni	1	**0.464**	ug/l	0.46	4.0	5000	74	P	
63	Cu	1	**0.109**	ug/l	0.11	9.0	5000	74	P	
66	Zn	1	**0.864**	ug/l	0.86	4.7	5000	74	P	
78	Se	1	**0.041**	ug/l	0.04	117.8	5000	74	P	
88	Sr	1	**-1.069**	ug/l	-1.07	8.4	5000	74	P	
95	Mo	1	**442.900**	ug/l	442.90	1.0	5000	103	A	
109	Ag	1	**0.025**	ug/l	0.03	8.7	200	103	P	
111	Cd	1	**0.114**	ug/l	0.11	11.3	5000	103	P	
118	Sn	1	**0.115**	ug/l	0.11	1.9	5000	103	P	
135	Ba	1	**0.127**	ug/l	0.13	16.0	5000	103	P	
200	Hg	1	**0.023**	ug/l	0.02	9.3	50	175	P	
205	Tl	1	**0.180**	ug/l	0.18	11.5	5000	175	P	
208	Pb	1	**0.023**	ug/l	0.02	38.0	5000	175	P	
238	U	1	**0.006**	ug/l	0.01	14.0	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	235567	0.10	240400	**98.0**	30	-	125	
45	Sc	1	2664146	1.94	2616000	**101.8**	30	-	125	
74	Ge	1	5333016	1.22	5524000	**96.5**	30	-	125	
103	Rh	1	6702946	1.30	7587000	**88.3**	30	-	125	
165	Ho	1	2935004	0.66	3139000	**93.5**	30	-	125	
175	Lu	1	2391628	0.81	2574000	**92.9**	30	-	125	
209	Bi	1	2622443	4.10	3148000	**83.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\014SMPL.D\014SMPL.D#
Date Acquired: Oct 18 2011 03:35 pm Acq. Method: 00He_ALL.M
Sample Name: ICSAB Vial Number: 1102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.002**	ug/l	0.00	42.8	5000	6	P	
23	Na	1	**51440.000**	ug/l	51,440.00	1.3	500000	45	A	
24	Mg	1	**20310.000**	ug/l	20,310.00	2.0	500000	45	A	
27	Al	1	**19870.000**	ug/l	19,870.00	1.5	500000	45	A	
31	P	1	**20700.000**	ug/l	20,700.00	2.4	500000	45	A	
39	K	1	**20120.000**	ug/l	20,120.00	0.9	500000	45	A	
44	Ca	1	**58000.000**	ug/l	58,000.00	1.0	500000	45	A	
47	Ti	1	**404.900**	ug/l	404.90	2.1	5000	45	P	
51	V	1	**40.630**	ug/l	40.63	1.9	5000	45	P	
52	Cr	1	**40.940**	ug/l	40.94	2.1	5000	45	P	
57	Fe	1	**49760.000**	ug/l	49,760.00	0.9	500000	74	A	
59	Co	1	**40.500**	ug/l	40.50	2.7	5000	45	P	
60	Ni	1	**41.660**	ug/l	41.66	1.7	5000	74	P	
63	Cu	1	**40.450**	ug/l	40.45	1.1	5000	74	P	
66	Zn	1	**22.030**	ug/l	22.03	2.4	5000	74	P	
78	Se	1	**21.130**	ug/l	21.13	1.0	5000	74	P	
88	Sr	1	**-1.145**	ug/l	-1.15	5.9	5000	74	P	
95	Mo	1	**444.200**	ug/l	444.20	0.7	5000	103	A	
109	Ag	1	**10.790**	ug/l	10.79	2.5	200	103	P	
111	Cd	1	**21.570**	ug/l	21.57	1.6	5000	103	P	
118	Sn	1	**0.076**	ug/l	0.08	18.8	5000	103	P	
135	Ba	1	**0.132**	ug/l	0.13	9.3	5000	103	P	
200	Hg	1	**0.023**	ug/l	0.02	25.1	50	175	P	
205	Tl	1	**0.113**	ug/l	0.11	15.8	5000	175	P	
208	Pb	1	**0.117**	ug/l	0.12	7.3	5000	175	P	
238	U	1	**0.004**	ug/l	0.00	12.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	236635	0.56	240400	**98.4**	30	-	125	
45	Sc	1	2669162	2.25	2616000	**102.0**	30	-	125	
74	Ge	1	5385967	0.65	5524000	**97.5**	30	-	125	
103	Rh	1	6698617	1.26	7587000	**88.3**	30	-	125	
165	Ho	1	2923551	1.36	3139000	**93.1**	30	-	125	
175	Lu	1	2404013	1.23	2574000	**93.4**	30	-	125	
209	Bi	1	2675877	3.90	3148000	**85.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\024SMPL.D\024SMPL.D#
Date Acquired: Oct 18 2011 04:22 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**50.020**	ug/l	50.02	1.1	5000	6	P	
23	Na	1	**4712.000**	ug/l	4,712.00	1.7	500000	45	A	
24	Mg	1	**4714.000**	ug/l	4,714.00	2.0	500000	45	A	
27	Al	1	**476.000**	ug/l	476.00	1.0	500000	45	P	
31	P	1	**4693.000**	ug/l	4,693.00	1.7	500000	45	P	
39	K	1	**4862.000**	ug/l	4,862.00	1.4	500000	45	A	
44	Ca	1	**4876.000**	ug/l	4,876.00	1.5	500000	45	P	
47	Ti	1	**49.020**	ug/l	49.02	2.1	5000	45	P	
51	V	1	**48.900**	ug/l	48.90	1.5	5000	45	P	
52	Cr	1	**49.200**	ug/l	49.20	1.7	5000	45	P	
57	Fe	1	**4894.000**	ug/l	4,894.00	2.0	500000	74	A	
59	Co	1	**50.160**	ug/l	50.16	1.6	5000	45	P	
60	Ni	1	**48.640**	ug/l	48.64	2.0	5000	74	P	
63	Cu	1	**49.110**	ug/l	49.11	1.3	5000	74	P	
66	Zn	1	**51.020**	ug/l	51.02	0.9	5000	74	P	
78	Se	1	**48.520**	ug/l	48.52	1.4	5000	74	P	
88	Sr	1	**48.620**	ug/l	48.62	0.8	5000	74	P	
95	Mo	1	**48.300**	ug/l	48.30	1.9	5000	103	P	
109	Ag	1	**49.790**	ug/l	49.79	1.8	200	103	P	
111	Cd	1	**48.620**	ug/l	48.62	2.4	5000	103	P	
118	Sn	1	**48.680**	ug/l	48.68	3.0	5000	103	P	
135	Ba	1	**49.330**	ug/l	49.33	2.9	5000	103	P	
200	Hg	1	**2.468**	ug/l	2.47	1.5	50	175	P	
205	Tl	1	**49.670**	ug/l	49.67	4.4	5000	175	A	
208	Pb	1	**50.010**	ug/l	50.01	1.4	5000	175	P	
238	U	1	**50.570**	ug/l	50.57	0.2	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	203868	0.35	240400	**84.8**	30	-	125	
45	Sc	1	2521992	1.33	2616000	**96.4**	30	-	125	
74	Ge	1	5426694	1.45	5524000	**98.2**	30	-	125	
103	Rh	1	7442248	1.91	7587000	**98.1**	30	-	125	
165	Ho	1	3156088	0.90	3139000	**100.5**	30	-	125	
175	Lu	1	2558798	1.37	2574000	**99.4**	30	-	125	
209	Bi	1	3121670	1.90	3148000	**99.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\025SMPL.D\025SMPL.D#
Date Acquired: Oct 18 2011 04:27 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.022**	ug/l	0.02	20.9	5000	6	P	
23	Na	1	**2.026**	ug/l	2.03	61.4	500000	45	P	
24	Mg	1	**0.240**	ug/l	0.24	14.6	500000	45	P	
27	Al	1	**-0.308**	ug/l	-0.31	62.6	500000	45	P	
31	P	1	**-1.186**	ug/l	-1.19	50.9	500000	45	P	
39	K	1	**-0.812**	ug/l	-0.81	261.3	500000	45	P	
44	Ca	1	**0.605**	ug/l	0.60	71.9	500000	45	P	
47	Ti	1	**0.068**	ug/l	0.07	3.5	5000	45	P	
51	V	1	**-0.078**	ug/l	-0.08	20.6	5000	45	P	
52	Cr	1	**-0.008**	ug/l	-0.01	76.3	5000	45	P	
57	Fe	1	**1.045**	ug/l	1.05	30.2	500000	74	P	
59	Co	1	**0.014**	ug/l	0.01	18.3	5000	45	P	
60	Ni	1	**-0.001**	ug/l	0.00	921.9	5000	74	P	
63	Cu	1	**0.010**	ug/l	0.01	11.3	5000	74	P	
66	Zn	1	**-0.043**	ug/l	-0.04	39.8	5000	74	P	
78	Se	1	**0.003**	ug/l	0.00	1622.5	5000	74	P	
88	Sr	1	**0.000**	ug/l	0.00	4772.2	5000	74	P	
95	Mo	1	**0.102**	ug/l	0.10	17.3	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	4132.4	200	103	P	
111	Cd	1	**0.006**	ug/l	0.01	112.3	5000	103	P	
118	Sn	1	**0.296**	ug/l	0.30	12.7	5000	103	P	
135	Ba	1	**-0.004**	ug/l	0.00	483.0	5000	103	P	
200	Hg	1	**0.036**	ug/l	0.04	23.8	50	175	P	
205	Tl	1	**0.300**	ug/l	0.30	13.0	5000	175	P	
208	Pb	1	**0.017**	ug/l	0.02	74.0	5000	175	P	
238	U	1	**0.016**	ug/l	0.02	28.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	213169	1.44	240400	**88.7**	30	-	125	
45	Sc	1	2545776	1.60	2616000	**97.3**	30	-	125	
74	Ge	1	5522508	0.35	5524000	**100.0**	30	-	125	
103	Rh	1	7669067	0.36	7587000	**101.1**	30	-	125	
165	Ho	1	3211397	0.60	3139000	**102.3**	30	-	125	
175	Lu	1	2636155	1.08	2574000	**102.4**	30	-	125	
209	Bi	1	3232297	1.42	3148000	**102.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\026SMPL.D\026SMPL.D#
Date Acquired: Oct 18 2011 04:32 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-97966/21-A Vial Number: 2101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.030**	ug/l	0.30	32.8	5000	6	P	
23	**Na**	1	**5.325**	ug/l	53.25	24.0	500000	45	P	
24	**Mg**	1	**0.295**	ug/l	2.95	21.0	500000	45	P	
27	**Al**	1	**-0.179**	ug/l	-1.79	95.9	500000	45	P	
31	**P**	1	**-0.636**	ug/l	-6.36	157.7	500000	45	P	
39	**K**	1	**-0.133**	ug/l	-1.33	1039.9	500000	45	P	
44	**Ca**	1	**0.676**	ug/l	6.76	72.0	500000	45	P	
47	**Ti**	1	**0.054**	ug/l	0.54	30.1	5000	45	P	
51	**V**	1	**-0.065**	ug/l	-0.65	18.1	5000	45	P	
52	**Cr**	1	**0.021**	ug/l	0.21	36.5	5000	45	P	
57	**Fe**	1	**1.041**	ug/l	10.41	22.4	500000	74	P	
59	**Co**	1	**0.012**	ug/l	0.12	23.2	5000	45	P	
60	**Ni**	1	**0.087**	ug/l	0.87	21.4	5000	74	P	
63	**Cu**	1	**0.061**	ug/l	0.61	7.8	5000	74	P	
66	**Zn**	1	**0.034**	ug/l	0.34	103.8	5000	74	P	
78	**Se**	1	**0.020**	ug/l	0.20	410.3	5000	74	P	
88	**Sr**	1	**0.012**	ug/l	0.12	44.0	5000	74	P	
95	**Mo**	1	**0.045**	ug/l	0.45	46.9	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	71.2	200	103	P	
111	**Cd**	1	**0.005**	ug/l	0.05	256.6	5000	103	P	
118	**Sn**	1	**0.173**	ug/l	1.73	16.4	5000	103	P	
135	**Ba**	1	**0.018**	ug/l	0.18	76.4	5000	103	P	
200	**Hg**	1	**0.025**	ug/l	0.25	32.5	50	175	P	
205	**Tl**	1	**0.099**	ug/l	0.99	29.3	5000	175	P	
208	**Pb**	1	**0.016**	ug/l	0.16	64.2	5000	175	P	
238	**U**	1	**0.007**	ug/l	0.07	32.4	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	210182	0.24	240400	**87.4**	30	-	125	
45	Sc	1	2519362	1.36	2616000	**96.3**	30	-	125	
74	Ge	1	5506330	0.85	5524000	**99.7**	30	-	125	
103	Rh	1	7692863	1.77	7587000	**101.4**	30	-	125	
165	Ho	1	3212075	1.10	3139000	**102.3**	30	-	125	
175	Lu	1	2661144	1.43	2574000	**103.4**	30	-	125	
209	Bi	1	3244711	1.87	3148000	**103.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\027SMPL.D\027SMPL.D#
Date Acquired: Oct 18 2011 04:36 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-97966/22-A Vial Number: 2102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.028**	ug/l	101.40	1.4	5000	6	P	
23	Na	1	**400.000**	ug/l	20,000.00	1.3	500000	45	A	
24	Mg	1	**405.900**	ug/l	20,295.00	0.4	500000	45	P	
27	Al	1	**77.900**	ug/l	3,895.00	0.9	500000	45	P	
31	P	1	**370.900**	ug/l	18,545.00	1.4	500000	45	P	
39	K	1	**417.300**	ug/l	20,865.00	2.1	500000	45	A	
44	Ca	1	**401.500**	ug/l	20,075.00	0.6	500000	45	P	
47	Ti	1	**97.220**	ug/l	4,861.00	1.1	5000	45	P	
51	V	1	**20.160**	ug/l	1,008.00	1.0	5000	45	P	
52	Cr	1	**8.213**	ug/l	410.65	1.1	5000	45	P	
57	Fe	1	**438.900**	ug/l	21,945.00	1.3	500000	74	P	
59	Co	1	**20.960**	ug/l	1,048.00	1.6	5000	45	P	
60	Ni	1	**20.170**	ug/l	1,008.50	2.8	5000	74	P	
63	Cu	1	**10.370**	ug/l	518.50	2.1	5000	74	P	
66	Zn	1	**20.970**	ug/l	1,048.50	2.2	5000	74	P	
78	Se	1	**79.090**	ug/l	3,954.50	0.9	5000	74	P	
88	Sr	1	**-0.002**	ug/l	-0.12	480.5	5000	74	P	
95	Mo	1	**99.090**	ug/l	4,954.50	0.6	5000	103	P	
109	Ag	1	**12.580**	ug/l	629.00	0.7	200	103	P	
111	Cd	1	**1.998**	ug/l	99.90	2.6	5000	103	P	
118	Sn	1	**101.200**	ug/l	5,060.00	1.5	5000	103	P	
135	Ba	1	**81.310**	ug/l	4,065.50	1.1	5000	103	P	
200	Hg	1	**1.021**	ug/l	51.05	4.1	50	175	P	
205	Tl	1	**80.770**	ug/l	4,038.50	5.0	5000	175	A	
208	Pb	1	**20.980**	ug/l	1,049.00	1.2	5000	175	P	
238	U	1	**0.006**	ug/l	0.32	21.9	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	205458	0.14	240400	**85.5**	30	-	125	
45	Sc	1	2523380	0.97	2616000	**96.5**	30	-	125	
74	Ge	1	5449182	1.06	5524000	**98.6**	30	-	125	
103	Rh	1	7565628	0.74	7587000	**99.7**	30	-	125	
165	Ho	1	3225356	0.14	3139000	**102.8**	30	-	125	
175	Lu	1	2628639	0.65	2574000	**102.1**	30	-	125	
209	Bi	1	3255443	1.17	3148000	**103.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\028SMPL.D\028SMPL.D#
Date Acquired: Oct 18 2011 04:41 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-97966/23-A Vial Number: 2103
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.017**	ug/l	100.85	4.7	5000	6	P	
23	Na	1	**397.300**	ug/l	19,865.00	5.0	500000	45	A	
24	Mg	1	**404.800**	ug/l	20,240.00	3.1	500000	45	P	
27	Al	1	**77.420**	ug/l	3,871.00	2.4	500000	45	P	
31	P	1	**367.700**	ug/l	18,385.00	2.0	500000	45	P	
39	K	1	**409.400**	ug/l	20,470.00	4.0	500000	45	A	
44	Ca	1	**398.500**	ug/l	19,925.00	1.8	500000	45	P	
47	Ti	1	**95.520**	ug/l	4,776.00	2.1	5000	45	P	
51	V	1	**19.900**	ug/l	995.00	1.9	5000	45	P	
52	Cr	1	**8.139**	ug/l	406.95	2.8	5000	45	P	
57	Fe	1	**435.000**	ug/l	21,750.00	2.1	500000	74	P	
59	Co	1	**20.720**	ug/l	1,036.00	2.6	5000	45	P	
60	Ni	1	**19.840**	ug/l	992.00	2.0	5000	74	P	
63	Cu	1	**10.200**	ug/l	510.00	1.8	5000	74	P	
66	Zn	1	**20.480**	ug/l	1,024.00	3.3	5000	74	P	
78	Se	1	**78.300**	ug/l	3,915.00	1.7	5000	74	P	
88	Sr	1	**0.008**	ug/l	0.42	69.6	5000	74	P	
95	Mo	1	**98.510**	ug/l	4,925.50	1.7	5000	103	P	
109	Ag	1	**12.470**	ug/l	623.50	2.8	200	103	P	
111	Cd	1	**2.129**	ug/l	106.45	2.0	5000	103	P	
118	Sn	1	**100.900**	ug/l	5,045.00	2.5	5000	103	P	
135	Ba	1	**80.240**	ug/l	4,012.00	1.8	5000	103	P	
200	Hg	1	**1.022**	ug/l	51.10	0.8	50	175	P	
205	Tl	1	**79.830**	ug/l	3,991.50	3.9	5000	175	A	
208	Pb	1	**20.920**	ug/l	1,046.00	2.1	5000	175	P	
238	U	1	**0.004**	ug/l	0.19	23.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	206037	0.42	240400	**85.7**	30	-	125	
45	Sc	1	2529590	2.20	2616000	**96.7**	30	-	125	
74	Ge	1	5498086	1.97	5524000	**99.5**	30	-	125	
103	Rh	1	7578328	1.83	7587000	**99.9**	30	-	125	
165	Ho	1	3218562	1.12	3139000	**102.5**	30	-	125	
175	Lu	1	2644517	1.35	2574000	**102.7**	30	-	125	
209	Bi	1	3306357	1.57	3148000	**105.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\029SMPL.D\029SMPL.D#
Date Acquired: Oct 18 2011 04:46 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-97966/24-A Vial Number: 2104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.190**	ug/l	923.80	1.1	5000	6	P	
23	**Na**	1	**370.700**	ug/l	7,414.00	2.6	500000	45	A	
24	**Mg**	1	**1442.000**	ug/l	28,840.00	2.3	500000	45	A	
27	**Al**	1	**3805.000**	ug/l	76,100.00	2.6	500000	45	A	
31	**P**	1	**244.100**	ug/l	4,882.00	2.1	500000	45	P	
39	**K**	1	**1307.000**	ug/l	26,140.00	2.6	500000	45	A	
44	**Ca**	1	**3451.000**	ug/l	69,020.00	2.3	500000	45	P	
47	**Ti**	1	**112.300**	ug/l	2,246.00	2.5	5000	45	P	
51	**V**	1	**57.570**	ug/l	1,151.40	2.5	5000	45	P	
52	**Cr**	1	**48.240**	ug/l	964.80	2.9	5000	45	P	
57	**Fe**	1	**7073.000**	ug/l	141,460.00	2.6	500000	74	A	
59	**Co**	1	**75.150**	ug/l	1,503.00	1.3	5000	45	A	
60	**Ni**	1	**56.840**	ug/l	1,136.80	1.9	5000	74	P	
63	**Cu**	1	**37.310**	ug/l	746.20	1.7	5000	74	P	
66	**Zn**	1	**154.400**	ug/l	3,088.00	2.0	5000	74	P	
78	**Se**	1	**109.700**	ug/l	2,194.00	2.0	5000	74	P	
88	**Sr**	1	**57.850**	ug/l	1,157.00	2.1	5000	74	P	
95	**Mo**	1	**47.380**	ug/l	947.60	2.0	5000	103	P	
109	**Ag**	1	**27.100**	ug/l	542.00	1.5	200	103	P	
111	**Cd**	1	**57.800**	ug/l	1,156.00	1.1	5000	103	P	
118	**Sn**	1	**71.380**	ug/l	1,427.60	1.3	5000	103	P	
135	**Ba**	1	**169.300**	ug/l	3,386.00	1.9	5000	103	P	
200	**Hg**	1	**8.500**	ug/l	170.00	1.7	50	175	P	
205	**Tl**	1	**92.560**	ug/l	1,851.20	3.0	5000	175	A	
208	**Pb**	1	**85.800**	ug/l	1,716.00	1.8	5000	175	A	
238	**U**	1	**0.566**	ug/l	11.32	0.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	202563	1.07	240400	**84.3**	30	-	125	
45	Sc	1	2510678	2.57	2616000	**96.0**	30	-	125	
74	Ge	1	5423652	1.90	5524000	**98.2**	30	-	125	
103	Rh	1	7411853	1.64	7587000	**97.7**	30	-	125	
165	Ho	1	3177004	0.77	3139000	**101.2**	30	-	125	
175	Lu	1	2626811	1.76	2574000	**102.1**	30	-	125	
209	Bi	1	3150186	2.00	3148000	**100.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\030SMPL.D\030SMPL.D#
Date Acquired: Oct 18 2011 04:51 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**49.450**	ug/l	49.45	1.3	5000	6	P	
23	Na	1	**4744.000**	ug/l	4,744.00	3.7	500000	45	A	
24	Mg	1	**4715.000**	ug/l	4,715.00	3.1	500000	45	A	
27	Al	1	**474.400**	ug/l	474.40	3.2	500000	45	P	
31	P	1	**4648.000**	ug/l	4,648.00	2.7	500000	45	P	
39	K	1	**4765.000**	ug/l	4,765.00	2.4	500000	45	A	
44	Ca	1	**4863.000**	ug/l	4,863.00	2.0	500000	45	P	
47	Ti	1	**48.230**	ug/l	48.23	2.8	5000	45	P	
51	V	1	**48.470**	ug/l	48.47	2.5	5000	45	P	
52	Cr	1	**48.770**	ug/l	48.77	2.8	5000	45	P	
57	Fe	1	**4930.000**	ug/l	4,930.00	1.7	500000	74	A	
59	Co	1	**50.050**	ug/l	50.05	3.3	5000	45	P	
60	Ni	1	**48.230**	ug/l	48.23	1.9	5000	74	P	
63	Cu	1	**48.670**	ug/l	48.67	1.5	5000	74	P	
66	Zn	1	**50.600**	ug/l	50.60	2.1	5000	74	P	
78	Se	1	**49.070**	ug/l	49.07	1.1	5000	74	P	
88	Sr	1	**48.700**	ug/l	48.70	1.8	5000	74	P	
95	Mo	1	**49.010**	ug/l	49.01	2.0	5000	103	P	
109	Ag	1	**50.520**	ug/l	50.52	2.5	200	103	P	
111	Cd	1	**50.420**	ug/l	50.42	2.6	5000	103	P	
118	Sn	1	**50.260**	ug/l	50.26	2.8	5000	103	P	
135	Ba	1	**50.040**	ug/l	50.04	2.3	5000	103	P	
200	Hg	1	**2.466**	ug/l	2.47	3.1	50	175	P	
205	Tl	1	**49.610**	ug/l	49.61	2.4	5000	175	A	
208	Pb	1	**49.630**	ug/l	49.63	2.8	5000	175	P	
238	U	1	**50.930**	ug/l	50.93	1.3	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	204604	0.90	240400	**85.1**	30	-	125	
45	Sc	1	2522448	2.61	2616000	**96.4**	30	-	125	
74	Ge	1	5446341	1.51	5524000	**98.6**	30	-	125	
103	Rh	1	7355450	2.26	7587000	**96.9**	30	-	125	
165	Ho	1	3214179	0.78	3139000	**102.4**	30	-	125	
175	Lu	1	2618423	2.22	2574000	**101.7**	30	-	125	
209	Bi	1	3143153	1.66	3148000	**99.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\031SMPL.D\031SMPL.D#
Date Acquired: Oct 18 2011 04:56 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.020**	ug/l	0.02	19.7	5000	6	P	
23	**Na**	1	**3.242**	ug/l	3.24	54.0	500000	45	P	
24	**Mg**	1	**0.118**	ug/l	0.12	13.4	500000	45	P	
27	**Al**	1	**-0.343**	ug/l	-0.34	67.9	500000	45	P	
31	**P**	1	**-0.022**	ug/l	-0.02	4890.9	500000	45	P	
39	**K**	1	**-2.081**	ug/l	-2.08	108.3	500000	45	P	
44	**Ca**	1	**-0.445**	ug/l	-0.44	148.5	500000	45	P	
47	**Ti**	1	**0.049**	ug/l	0.05	24.9	5000	45	P	
51	**V**	1	**-0.058**	ug/l	-0.06	35.1	5000	45	P	
52	**Cr**	1	**-0.001**	ug/l	0.00	336.5	5000	45	P	
57	**Fe**	1	**1.070**	ug/l	1.07	17.4	500000	74	P	
59	**Co**	1	**0.010**	ug/l	0.01	21.8	5000	45	P	
60	**Ni**	1	**-0.002**	ug/l	0.00	58.9	5000	74	P	
63	**Cu**	1	**0.001**	ug/l	0.00	364.2	5000	74	P	
66	**Zn**	1	**-0.059**	ug/l	-0.06	35.7	5000	74	P	
78	**Se**	1	**-0.029**	ug/l	-0.03	81.2	5000	74	P	
88	**Sr**	1	**0.003**	ug/l	0.00	130.1	5000	74	P	
95	**Mo**	1	**0.102**	ug/l	0.10	7.2	5000	103	P	
109	**Ag**	1	**0.000**	ug/l	0.00	5475.6	200	103	P	
111	**Cd**	1	**0.000**	ug/l	0.00	809.7	5000	103	P	
118	**Sn**	1	**0.310**	ug/l	0.31	28.7	5000	103	P	
135	**Ba**	1	**0.026**	ug/l	0.03	40.7	5000	103	P	
200	**Hg**	1	**0.051**	ug/l	0.05	12.6	50	175	P	
205	**Tl**	1	**0.532**	ug/l	0.53	15.6	5000	175	P	
208	**Pb**	1	**0.003**	ug/l	0.00	311.5	5000	175	P	
238	**U**	1	**0.014**	ug/l	0.01	36.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	209840	1.28	240400	**87.3**	30	-	125	
45	Sc	1	2507310	2.61	2616000	**95.8**	30	-	125	
74	Ge	1	5525738	0.36	5524000	**100.0**	30	-	125	
103	Rh	1	7536726	0.90	7587000	**99.3**	30	-	125	
165	Ho	1	3180770	1.64	3139000	**101.3**	30	-	125	
175	Lu	1	2617530	0.84	2574000	**101.7**	30	-	125	
209	Bi	1	3262112	2.94	3148000	**103.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\032SMPL.D\032SMPL.D#
Date Acquired: Oct 18 2011 05:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-1-E SD Vial Number: 2201
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.048**	ug/l	2.42	12.5	5000	6	P	
23	Na	1	**27.290**	ug/l	1,364.50	10.1	500000	45	P	
24	Mg	1	**1458.000**	ug/l	72,900.00	1.2	500000	45	A	
27	Al	1	**6030.000**	ug/l	301,500.00	0.5	500000	45	A	
31	P	1	**306.800**	ug/l	15,340.00	1.9	500000	45	P	
39	K	1	**523.300**	ug/l	26,165.00	0.9	500000	45	A	
44	Ca	1	**185.000**	ug/l	9,250.00	1.8	500000	45	P	
47	Ti	1	**172.300**	ug/l	8,615.00	1.7	5000	45	P	
51	V	1	**18.480**	ug/l	924.00	1.9	5000	45	P	
52	Cr	1	**2.508**	ug/l	125.40	3.0	5000	45	P	
57	Fe	1	**13530.000**	ug/l	676,500.00	0.6	500000	74	A	
59	Co	1	**1.741**	ug/l	87.05	1.5	5000	45	P	
60	Ni	1	**1.176**	ug/l	58.80	4.3	5000	74	P	
63	Cu	1	**156.000**	ug/l	7,800.00	1.6	5000	74	A	
66	Zn	1	**14.050**	ug/l	702.50	1.7	5000	74	P	
78	Se	1	**0.546**	ug/l	27.29	4.8	5000	74	P	
88	Sr	1	**1.876**	ug/l	93.80	3.6	5000	74	P	
95	Mo	1	**1.276**	ug/l	63.80	1.9	5000	103	P	
109	Ag	1	**0.184**	ug/l	9.21	4.8	200	103	P	
111	Cd	1	**0.043**	ug/l	2.14	21.1	5000	103	P	
118	Sn	1	**0.954**	ug/l	47.68	4.8	5000	103	P	
135	Ba	1	**10.730**	ug/l	536.50	4.1	5000	103	P	
200	Hg	1	**0.210**	ug/l	10.48	5.1	50	175	P	
205	Tl	1	**0.416**	ug/l	20.82	5.7	5000	175	P	
208	Pb	1	**24.910**	ug/l	1,245.50	1.8	5000	175	P	
238	U	1	**0.499**	ug/l	24.93	0.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	224985	1.21	240400	**93.6**	30	-	125	
45	Sc	1	2623251	1.29	2616000	**100.3**	30	-	125	
74	Ge	1	5530961	0.88	5524000	**100.1**	30	-	125	
103	Rh	1	7412669	0.83	7587000	**97.7**	30	-	125	
165	Ho	1	3213159	1.10	3139000	**102.4**	30	-	125	
175	Lu	1	2625123	1.24	2574000	**102.0**	30	-	125	
209	Bi	1	3129605	3.78	3148000	**99.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\033SMPL.D\033SMPL.D#
Date Acquired: Oct 18 2011 05:06 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-1-E Vial Number: 2202
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.168**	ug/l	1.68	11.0	5000	6	P	
23	Na	1	**156.100**	ug/l	1,561.00	8.4	500000	45	P	
24	Mg	1	**6899.000**	ug/l	68,990.00	2.6	500000	45	A	
27	Al	1	**29180.000**	ug/l	291,800.00	4.8	500000	45	A	
31	P	1	**1523.000**	ug/l	15,230.00	4.0	500000	45	P	
39	K	1	**2516.000**	ug/l	25,160.00	2.6	500000	45	A	
44	Ca	1	**964.300**	ug/l	9,643.00	3.3	500000	45	P	
47	Ti	1	**870.800**	ug/l	8,708.00	3.7	5000	45	P	
51	V	1	**94.270**	ug/l	942.70	2.2	5000	45	A	
52	Cr	1	**12.770**	ug/l	127.70	3.9	5000	45	P	
57	Fe	1	**65990.000**	ug/l	659,900.00	1.1	500000	74	A	
59	Co	1	**8.603**	ug/l	86.03	2.7	5000	45	P	
60	Ni	1	**5.663**	ug/l	56.63	0.5	5000	74	P	
63	Cu	1	**741.500**	ug/l	7,415.00	1.2	5000	74	A	
66	Zn	1	**69.240**	ug/l	692.40	1.2	5000	74	P	
78	Se	1	**3.117**	ug/l	31.17	1.9	5000	74	P	
88	Sr	1	**9.538**	ug/l	95.38	0.6	5000	74	P	
95	Mo	1	**6.373**	ug/l	63.73	1.8	5000	103	P	
109	Ag	1	**0.965**	ug/l	9.65	2.2	200	103	P	
111	Cd	1	**0.225**	ug/l	2.25	3.6	5000	103	P	
118	Sn	1	**4.177**	ug/l	41.77	1.9	5000	103	P	
135	Ba	1	**51.890**	ug/l	518.90	2.0	5000	103	P	
200	Hg	1	**0.816**	ug/l	8.16	0.9	50	175	P	
205	Tl	1	**0.773**	ug/l	7.73	5.8	5000	175	P	
208	Pb	1	**121.000**	ug/l	1,210.00	0.4	5000	175	A	
238	U	1	**2.521**	ug/l	25.21	1.2	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	203347	1.10	240400	**84.6**	30	-	125	
45	Sc	1	2496549	3.08	2616000	**95.4**	30	-	125	
74	Ge	1	5355100	1.10	5524000	**96.9**	30	-	125	
103	Rh	1	7220739	0.74	7587000	**95.2**	30	-	125	
165	Ho	1	3188023	1.27	3139000	**101.6**	30	-	125	
175	Lu	1	2598576	0.73	2574000	**101.0**	30	-	125	
209	Bi	1	3165794	2.27	3148000	**100.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\034SMPL.D\034SMPL.D#
Date Acquired: Oct 18 2011 05:10 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-1-F DU Vial Number: 2203
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.164**	ug/l	1.64	10.3	5000	6	P	
23	**Na**	1	**161.600**	ug/l	1,616.00	4.9	500000	45	M	
24	**Mg**	1	**7129.000**	ug/l	71,290.00	3.5	500000	45	A	
27	**Al**	1	**30610.000**	ug/l	306,100.00	3.4	500000	45	A	
31	**P**	1	**1606.000**	ug/l	16,060.00	3.3	500000	45	P	
39	**K**	1	**2627.000**	ug/l	26,270.00	2.4	500000	45	A	
44	**Ca**	1	**1019.000**	ug/l	10,190.00	2.7	500000	45	P	
47	**Ti**	1	**909.800**	ug/l	9,098.00	2.8	5000	45	P	
51	**V**	1	**98.620**	ug/l	986.20	2.3	5000	45	A	
52	**Cr**	1	**13.520**	ug/l	135.20	2.5	5000	45	P	
57	**Fe**	1	**67510.000**	ug/l	675,100.00	2.0	500000	74	A	
59	**Co**	1	**9.139**	ug/l	91.39	4.0	5000	45	P	
60	**Ni**	1	**5.895**	ug/l	58.95	4.4	5000	74	P	
63	**Cu**	1	**765.400**	ug/l	7,654.00	2.9	5000	74	A	
66	**Zn**	1	**71.630**	ug/l	716.30	3.0	5000	74	P	
78	**Se**	1	**3.189**	ug/l	31.89	2.5	5000	74	P	
88	**Sr**	1	**9.980**	ug/l	99.80	3.2	5000	74	P	
95	**Mo**	1	**6.534**	ug/l	65.34	1.7	5000	103	P	
109	**Ag**	1	**0.997**	ug/l	9.97	2.7	200	103	P	
111	**Cd**	1	**0.217**	ug/l	2.17	6.8	5000	103	P	
118	**Sn**	1	**4.348**	ug/l	43.48	1.2	5000	103	P	
135	**Ba**	1	**54.260**	ug/l	542.60	1.1	5000	103	P	
200	**Hg**	1	**0.844**	ug/l	8.44	0.9	50	175	P	
205	**Tl**	1	**0.757**	ug/l	7.57	2.4	5000	175	P	
208	**Pb**	1	**123.700**	ug/l	1,237.00	0.9	5000	175	A	
238	**U**	1	**2.590**	ug/l	25.90	1.2	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	201179	0.76	240400	**83.7**	30	-	125	
45	Sc	1	2463073	2.70	2616000	**94.2**	30	-	125	
74	Ge	1	5364576	2.31	5524000	**97.1**	30	-	125	
103	Rh	1	7241552	0.70	7587000	**95.4**	30	-	125	
165	Ho	1	3229248	1.08	3139000	**102.9**	30	-	125	
175	Lu	1	2654257	1.09	2574000	**103.1**	30	-	125	
209	Bi	1	3199705	1.01	3148000	**101.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\035SMPL.D\035SMPL.D#
Date Acquired: Oct 18 2011 05:15 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-1-G MS Vial Number: 2204
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.987**	ug/l	99.35	3.2	5000	6	P	
23	Na	1	**432.600**	ug/l	21,630.00	0.2	500000	45	A	
24	Mg	1	**1699.000**	ug/l	84,950.00	1.3	500000	45	A	
27	Al	1	**5871.000**	ug/l	293,550.00	1.8	500000	45	A	
31	P	1	**654.000**	ug/l	32,700.00	0.7	500000	45	P	
39	K	1	**858.800**	ug/l	42,940.00	1.5	500000	45	A	
44	Ca	1	**609.100**	ug/l	30,455.00	1.1	500000	45	P	
47	Ti	1	**249.900**	ug/l	12,495.00	0.8	5000	45	P	
51	V	1	**36.420**	ug/l	1,821.00	0.5	5000	45	P	
52	Cr	1	**10.200**	ug/l	510.00	0.1	5000	45	P	
57	Fe	1	**12920.000**	ug/l	646,000.00	0.8	500000	74	A	
59	Co	1	**21.720**	ug/l	1,086.00	1.5	5000	45	P	
60	Ni	1	**20.810**	ug/l	1,040.50	2.0	5000	74	P	
63	Cu	1	**154.200**	ug/l	7,710.00	1.6	5000	74	A	
66	Zn	1	**32.680**	ug/l	1,634.00	1.0	5000	74	P	
78	Se	1	**78.550**	ug/l	3,927.50	0.5	5000	74	P	
88	Sr	1	**2.009**	ug/l	100.45	1.8	5000	74	P	
95	Mo	1	**93.020**	ug/l	4,651.00	0.8	5000	103	P	
109	Ag	1	**12.110**	ug/l	605.50	1.3	200	103	P	
111	Cd	1	**2.071**	ug/l	103.55	0.9	5000	103	P	
118	Sn	1	**83.180**	ug/l	4,159.00	1.6	5000	103	P	
135	Ba	1	**88.960**	ug/l	4,448.00	0.8	5000	103	P	
200	Hg	1	**1.105**	ug/l	55.25	0.2	50	175	P	
205	Tl	1	**86.390**	ug/l	4,319.50	1.8	5000	175	A	
208	Pb	1	**43.390**	ug/l	2,169.50	1.0	5000	175	P	
238	U	1	**0.467**	ug/l	23.34	1.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	214077	0.81	240400	**89.1**	30	-	125	
45	Sc	1	2560017	0.80	2616000	**97.9**	30	-	125	
74	Ge	1	5499718	0.48	5524000	**99.6**	30	-	125	
103	Rh	1	7562284	0.54	7587000	**99.7**	30	-	125	
165	Ho	1	3211019	1.01	3139000	**102.3**	30	-	125	
175	Lu	1	2658439	0.64	2574000	**103.3**	30	-	125	
209	Bi	1	3184955	4.03	3148000	**101.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\036SMPL.D\036SMPL.D#
Date Acquired: Oct 18 2011 05:20 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-1-H MSD Vial Number: 2205
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.191**	ug/l	109.55	3.2	5000	6	P	
23	**Na**	1	**486.100**	ug/l	24,305.00	5.4	500000	45	A	
24	**Mg**	1	**1986.000**	ug/l	99,300.00	4.2	500000	45	A	
27	**Al**	1	**7046.000**	ug/l	352,300.00	2.3	500000	45	A	
31	**P**	1	**759.300**	ug/l	37,965.00	3.4	500000	45	P	
39	**K**	1	**995.500**	ug/l	49,775.00	2.1	500000	45	A	
44	**Ca**	1	**684.300**	ug/l	34,215.00	2.5	500000	45	P	
47	**Ti**	1	**278.800**	ug/l	13,940.00	2.5	5000	45	P	
51	**V**	1	**40.850**	ug/l	2,042.50	3.3	5000	45	P	
52	**Cr**	1	**11.190**	ug/l	559.50	2.9	5000	45	P	
57	**Fe**	1	**15990.000**	ug/l	799,500.00	1.6	500000	74	A	
59	**Co**	1	**23.970**	ug/l	1,198.50	3.7	5000	45	P	
60	**Ni**	1	**22.820**	ug/l	1,141.00	2.1	5000	74	P	
63	**Cu**	1	**182.600**	ug/l	9,130.00	2.0	5000	74	A	
66	**Zn**	1	**37.070**	ug/l	1,853.50	2.4	5000	74	P	
78	**Se**	1	**86.170**	ug/l	4,308.50	2.1	5000	74	P	
88	**Sr**	1	**2.843**	ug/l	142.15	3.6	5000	74	P	
95	**Mo**	1	**103.300**	ug/l	5,165.00	1.9	5000	103	P	
109	**Ag**	1	**13.180**	ug/l	659.00	1.3	200	103	P	
111	**Cd**	1	**2.170**	ug/l	108.50	1.3	5000	103	P	
118	**Sn**	1	**92.130**	ug/l	4,606.50	1.7	5000	103	P	
135	**Ba**	1	**96.510**	ug/l	4,825.50	1.0	5000	103	P	
200	**Hg**	1	**1.210**	ug/l	60.50	1.3	50	175	P	
205	**Tl**	1	**96.040**	ug/l	4,802.00	0.9	5000	175	A	
208	**Pb**	1	**50.160**	ug/l	2,508.00	1.9	5000	175	P	
238	**U**	1	**0.540**	ug/l	26.98	3.1	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	213393	1.27	240400	**88.8**	30	-	125	
45	Sc	1	2552305	3.38	2616000	**97.6**	30	-	125	
74	Ge	1	5500348	1.75	5524000	**99.6**	30	-	125	
103	Rh	1	7537017	1.18	7587000	**99.3**	30	-	125	
165	Ho	1	3176650	1.98	3139000	**101.2**	30	-	125	
175	Lu	1	2631442	1.01	2574000	**102.2**	30	-	125	
209	Bi	1	3130246	2.60	3148000	**99.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\037SMPL.D\037SMPL.D#
Date Acquired: Oct 18 2011 05:25 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-1-E PDS Vial Number: 2206
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.194**	ug/l	109.70	6.1	5000	6	P	
23	**Na**	1	**464.800**	ug/l	23,240.00	1.9	500000	45	A	
24	**Mg**	1	**1797.000**	ug/l	89,850.00	0.2	500000	45	A	
27	**Al**	1	**5725.000**	ug/l	286,250.00	1.3	500000	45	A	
31	**P**	1	**699.600**	ug/l	34,980.00	2.3	500000	45	P	
39	**K**	1	**963.700**	ug/l	48,185.00	5.0	500000	45	A	
44	**Ca**	1	**613.100**	ug/l	30,655.00	1.4	500000	45	P	
47	**Ti**	1	**271.300**	ug/l	13,565.00	1.2	5000	45	P	
51	**V**	1	**39.080**	ug/l	1,954.00	1.7	5000	45	P	
52	**Cr**	1	**11.130**	ug/l	556.50	2.3	5000	45	P	
57	**Fe**	1	**13290.000**	ug/l	664,500.00	1.5	500000	74	A	
59	**Co**	1	**23.970**	ug/l	1,198.50	1.3	5000	45	P	
60	**Ni**	1	**23.380**	ug/l	1,169.00	2.5	5000	74	P	
63	**Cu**	1	**159.600**	ug/l	7,980.00	1.6	5000	74	A	
66	**Zn**	1	**35.110**	ug/l	1,755.50	2.0	5000	74	P	
78	**Se**	1	**87.830**	ug/l	4,391.50	2.3	5000	74	P	
88	**Sr**	1	**1.805**	ug/l	90.25	0.9	5000	74	P	
95	**Mo**	1	**110.000**	ug/l	5,500.00	2.1	5000	103	P	
109	**Ag**	1	**13.670**	ug/l	683.50	2.5	200	103	P	
111	**Cd**	1	**2.194**	ug/l	109.70	1.3	5000	103	P	
118	**Sn**	1	**106.500**	ug/l	5,325.00	2.6	5000	103	P	
135	**Ba**	1	**98.140**	ug/l	4,907.00	1.8	5000	103	P	
200	**Hg**	1	**1.244**	ug/l	62.20	2.9	50	175	P	
205	**Tl**	1	**98.660**	ug/l	4,933.00	2.3	5000	175	A	
208	**Pb**	1	**45.880**	ug/l	2,294.00	3.7	5000	175	P	
238	**U**	1	**0.470**	ug/l	23.50	2.7	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	217191	0.26	240400	**90.3**	30	-	125	
45	Sc	1	2609979	1.03	2616000	**99.8**	30	-	125	
74	Ge	1	5543053	1.55	5524000	**100.3**	30	-	125	
103	Rh	1	7532545	0.71	7587000	**99.3**	30	-	125	
165	Ho	1	3228429	0.47	3139000	**102.8**	30	-	125	
175	Lu	1	2643288	2.28	2574000	**102.7**	30	-	125	
209	Bi	1	3152184	3.38	3148000	**100.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\038SMPL.D\038SMPL.D#
Date Acquired: Oct 18 2011 05:30 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-2-B Vial Number: 2301
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.133**	ug/l	1.33	17.3	5000	6	P	
23	Na	1	**153.800**	ug/l	1,538.00	4.1	500000	45	M	
24	Mg	1	**7449.000**	ug/l	74,490.00	1.7	500000	45	A	
27	Al	1	**22730.000**	ug/l	227,300.00	3.0	500000	45	A	
31	P	1	**1133.000**	ug/l	11,330.00	2.5	500000	45	P	
39	K	1	**2533.000**	ug/l	25,330.00	3.4	500000	45	A	
44	Ca	1	**777.200**	ug/l	7,772.00	1.9	500000	45	P	
47	Ti	1	**865.800**	ug/l	8,658.00	2.0	5000	45	P	
51	V	1	**98.760**	ug/l	987.60	1.6	5000	45	A	
52	Cr	1	**11.100**	ug/l	111.00	2.5	5000	45	P	
57	Fe	1	**68740.000**	ug/l	687,400.00	0.5	500000	74	A	
59	Co	1	**13.330**	ug/l	133.30	2.3	5000	45	P	
60	Ni	1	**4.825**	ug/l	48.25	0.2	5000	74	P	
63	Cu	1	**533.800**	ug/l	5,338.00	0.5	5000	74	A	
66	Zn	1	**64.260**	ug/l	642.60	0.3	5000	74	P	
78	Se	1	**2.324**	ug/l	23.24	1.6	5000	74	P	
88	Sr	1	**6.957**	ug/l	69.57	0.1	5000	74	P	
95	Mo	1	**6.230**	ug/l	62.30	1.3	5000	103	P	
109	Ag	1	**0.973**	ug/l	9.73	0.3	200	103	P	
111	Cd	1	**0.153**	ug/l	1.53	20.7	5000	103	P	
118	Sn	1	**1.835**	ug/l	18.35	10.1	5000	103	P	
135	Ba	1	**48.570**	ug/l	485.70	2.1	5000	103	P	
200	Hg	1	**0.488**	ug/l	4.88	1.3	50	175	P	
205	Tl	1	**0.788**	ug/l	7.88	6.2	5000	175	P	
208	Pb	1	**43.220**	ug/l	432.20	2.0	5000	175	P	
238	U	1	**2.223**	ug/l	22.23	2.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	198605	1.64	240400	**82.6**	30	-	125	
45	Sc	1	2499409	1.91	2616000	**95.5**	30	-	125	
74	Ge	1	5375250	0.38	5524000	**97.3**	30	-	125	
103	Rh	1	7274553	0.79	7587000	**95.9**	30	-	125	
165	Ho	1	3168645	2.11	3139000	**100.9**	30	-	125	
175	Lu	1	2602415	0.88	2574000	**101.1**	30	-	125	
209	Bi	1	3134179	1.35	3148000	**99.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\039SMPL.D\039SMPL.D#
Date Acquired: Oct 18 2011 05:34 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-3-B Vial Number: 2302
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.162**	ug/l	1.62	18.5	5000	6	P	
23	Na	1	**204.300**	ug/l	2,043.00	4.2	500000	45	A	
24	Mg	1	**8416.000**	ug/l	84,160.00	1.3	500000	45	A	
27	Al	1	**14800.000**	ug/l	148,000.00	1.6	500000	45	A	
31	P	1	**848.000**	ug/l	8,480.00	1.2	500000	45	P	
39	K	1	**5959.000**	ug/l	59,590.00	2.7	500000	45	A	
44	Ca	1	**1528.000**	ug/l	15,280.00	1.2	500000	45	P	
47	Ti	1	**643.500**	ug/l	6,435.00	1.1	5000	45	P	
51	V	1	**98.370**	ug/l	983.70	0.5	5000	45	A	
52	Cr	1	**10.840**	ug/l	108.40	1.9	5000	45	P	
57	Fe	1	**200700.000**	ug/l	2,007,000.00	1.5	500000	74	A	
59	Co	1	**18.480**	ug/l	184.80	1.2	5000	45	P	
60	Ni	1	**3.853**	ug/l	38.53	2.1	5000	74	P	
63	Cu	1	**1208.000**	ug/l	12,080.00	0.8	5000	74	A	
66	Zn	1	**138.400**	ug/l	1,384.00	2.5	5000	74	P	
78	Se	1	**51.270**	ug/l	512.70	1.8	5000	74	P	
88	Sr	1	**12.330**	ug/l	123.30	0.3	5000	74	P	
95	Mo	1	**4.903**	ug/l	49.03	1.9	5000	103	P	
109	Ag	1	**11.670**	ug/l	116.70	1.0	200	103	P	
111	Cd	1	**0.711**	ug/l	7.11	6.1	5000	103	P	
118	Sn	1	**2.384**	ug/l	23.84	2.2	5000	103	P	
135	Ba	1	**131.000**	ug/l	1,310.00	0.3	5000	103	P	
200	Hg	1	**1.775**	ug/l	17.75	2.1	50	175	P	
205	Tl	1	**0.758**	ug/l	7.58	4.3	5000	175	P	
208	Pb	1	**32.600**	ug/l	326.00	0.9	5000	175	P	
238	U	1	**0.952**	ug/l	9.52	2.7	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	185860	0.46	240400	**77.3**	30	-	125	
45	Sc	1	2376110	0.85	2616000	**90.8**	30	-	125	
74	Ge	1	5122228	1.16	5524000	**92.7**	30	-	125	
103	Rh	1	7001373	0.73	7587000	**92.3**	30	-	125	
165	Ho	1	3093814	1.73	3139000	**98.6**	30	-	125	
175	Lu	1	2511004	0.98	2574000	**97.6**	30	-	125	
209	Bi	1	3493170	1.89	3148000	**111.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\040SMPL.D\040SMPL.D#
Date Acquired: Oct 18 2011 05:39 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-4-B Vial Number: 2303
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.153**	ug/l	1.53	10.8	5000	6	P	
23	Na	1	**142.200**	ug/l	1,422.00	4.8	500000	45	P	
24	Mg	1	**8221.000**	ug/l	82,210.00	1.1	500000	45	A	
27	Al	1	**16070.000**	ug/l	160,700.00	1.1	500000	45	A	
31	P	1	**1157.000**	ug/l	11,570.00	0.3	500000	45	P	
39	K	1	**4455.000**	ug/l	44,550.00	2.9	500000	45	A	
44	Ca	1	**1015.000**	ug/l	10,150.00	0.2	500000	45	P	
47	Ti	1	**839.000**	ug/l	8,390.00	0.6	5000	45	P	
51	V	1	**115.100**	ug/l	1,151.00	2.2	5000	45	A	
52	Cr	1	**12.610**	ug/l	126.10	1.1	5000	45	P	
57	Fe	1	**149200.000**	ug/l	1,492,000.00	1.0	500000	74	A	
59	Co	1	**52.090**	ug/l	520.90	0.4	5000	45	P	
60	Ni	1	**3.521**	ug/l	35.21	6.0	5000	74	P	
63	Cu	1	**786.300**	ug/l	7,863.00	0.8	5000	74	A	
66	Zn	1	**108.500**	ug/l	1,085.00	1.4	5000	74	P	
78	Se	1	**29.030**	ug/l	290.30	1.6	5000	74	P	
88	Sr	1	**5.387**	ug/l	53.87	1.1	5000	74	P	
95	Mo	1	**3.767**	ug/l	37.67	1.2	5000	103	P	
109	Ag	1	**7.567**	ug/l	75.67	0.7	200	103	P	
111	Cd	1	**0.742**	ug/l	7.42	4.2	5000	103	P	
118	Sn	1	**1.276**	ug/l	12.76	5.2	5000	103	P	
135	Ba	1	**95.310**	ug/l	953.10	2.3	5000	103	P	
200	Hg	1	**1.425**	ug/l	14.25	2.6	50	175	P	
205	Tl	1	**0.673**	ug/l	6.73	2.0	5000	175	P	
208	Pb	1	**61.880**	ug/l	618.80	0.2	5000	175	A	
238	U	1	**1.474**	ug/l	14.74	0.5	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	187021	0.28	240400	**77.8**	30	-	125	
45	Sc	1	2364084	0.30	2616000	**90.4**	30	-	125	
74	Ge	1	5100775	0.97	5524000	**92.3**	30	-	125	
103	Rh	1	6950775	1.22	7587000	**91.6**	30	-	125	
165	Ho	1	3109544	0.56	3139000	**99.1**	30	-	125	
175	Lu	1	2558469	0.68	2574000	**99.4**	30	-	125	
209	Bi	1	3905067	1.16	3148000	**124.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\041SMPL.D\041SMPL.D#
Date Acquired: Oct 18 2011 05:44 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-5-B Vial Number: 2304
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.082**	ug/l	0.82	24.8	5000	6	P	
23	**Na**	1	**171.700**	ug/l	1,717.00	5.0	500000	45	P	
24	**Mg**	1	**7429.000**	ug/l	74,290.00	3.0	500000	45	A	
27	**Al**	1	**11350.000**	ug/l	113,500.00	2.5	500000	45	A	
31	**P**	1	**1013.000**	ug/l	10,130.00	1.6	500000	45	P	
39	**K**	1	**3175.000**	ug/l	31,750.00	3.3	500000	45	A	
44	**Ca**	1	**1176.000**	ug/l	11,760.00	2.9	500000	45	P	
47	**Ti**	1	**551.300**	ug/l	5,513.00	1.6	5000	45	P	
51	**V**	1	**86.710**	ug/l	867.10	3.5	5000	45	A	
52	**Cr**	1	**9.579**	ug/l	95.79	3.0	5000	45	P	
57	**Fe**	1	**153400.000**	ug/l	1,534,000.00	1.5	500000	74	A	
59	**Co**	1	**10.040**	ug/l	100.40	2.6	5000	45	P	
60	**Ni**	1	**2.984**	ug/l	29.84	1.7	5000	74	P	
63	**Cu**	1	**567.100**	ug/l	5,671.00	1.3	5000	74	A	
66	**Zn**	1	**61.330**	ug/l	613.30	1.2	5000	74	P	
78	**Se**	1	**13.110**	ug/l	131.10	1.8	5000	74	P	
88	**Sr**	1	**7.638**	ug/l	76.38	0.1	5000	74	P	
95	**Mo**	1	**2.597**	ug/l	25.97	1.6	5000	103	P	
109	**Ag**	1	**5.757**	ug/l	57.57	1.9	200	103	P	
111	**Cd**	1	**0.171**	ug/l	1.71	2.0	5000	103	P	
118	**Sn**	1	**1.202**	ug/l	12.02	2.1	5000	103	P	
135	**Ba**	1	**62.100**	ug/l	621.00	4.5	5000	103	P	
200	**Hg**	1	**0.228**	ug/l	2.28	3.1	50	175	P	
205	**Tl**	1	**0.333**	ug/l	3.33	6.8	5000	175	P	
208	**Pb**	1	**25.020**	ug/l	250.20	1.4	5000	175	P	
238	**U**	1	**0.781**	ug/l	7.81	1.7	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	184864	1.09	240400	**76.9**	30	-	125	
45	Sc	1	2382091	2.04	2616000	**91.1**	30	-	125	
74	Ge	1	5053726	0.75	5524000	**91.5**	30	-	125	
103	Rh	1	6934660	1.50	7587000	**91.4**	30	-	125	
165	Ho	1	3111325	0.87	3139000	**99.1**	30	-	125	
175	Lu	1	2534330	0.87	2574000	**98.5**	30	-	125	
209	Bi	1	3560141	2.08	3148000	**113.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\042SMPL.D\042SMPL.D#
Date Acquired: Oct 18 2011 05:49 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.930**	ug/l	49.93	1.6	5000	6	P	
23	**Na**	1	**4722.000**	ug/l	4,722.00	1.5	500000	45	A	
24	**Mg**	1	**4676.000**	ug/l	4,676.00	2.1	500000	45	A	
27	**Al**	1	**472.600**	ug/l	472.60	1.3	500000	45	P	
31	**P**	1	**4652.000**	ug/l	4,652.00	1.6	500000	45	P	
39	**K**	1	**4884.000**	ug/l	4,884.00	2.6	500000	45	A	
44	**Ca**	1	**4923.000**	ug/l	4,923.00	1.5	500000	45	P	
47	**Ti**	1	**49.290**	ug/l	49.29	1.8	5000	45	P	
51	**V**	1	**49.670**	ug/l	49.67	1.5	5000	45	P	
52	**Cr**	1	**50.290**	ug/l	50.29	1.9	5000	45	P	
57	**Fe**	1	**4856.000**	ug/l	4,856.00	0.9	500000	74	A	
59	**Co**	1	**51.350**	ug/l	51.35	1.6	5000	45	P	
60	**Ni**	1	**47.470**	ug/l	47.47	0.2	5000	74	P	
63	**Cu**	1	**47.980**	ug/l	47.98	1.0	5000	74	P	
66	**Zn**	1	**50.450**	ug/l	50.45	1.0	5000	74	P	
78	**Se**	1	**48.140**	ug/l	48.14	0.7	5000	74	P	
88	**Sr**	1	**48.090**	ug/l	48.09	0.6	5000	74	P	
95	**Mo**	1	**48.300**	ug/l	48.30	2.1	5000	103	P	
109	**Ag**	1	**50.420**	ug/l	50.42	1.9	200	103	P	
111	**Cd**	1	**49.790**	ug/l	49.79	2.0	5000	103	P	
118	**Sn**	1	**49.740**	ug/l	49.74	1.6	5000	103	P	
135	**Ba**	1	**50.900**	ug/l	50.90	1.5	5000	103	P	
200	**Hg**	1	**2.429**	ug/l	2.43	2.4	50	175	P	
205	**Tl**	1	**52.980**	ug/l	52.98	2.3	5000	175	A	
208	**Pb**	1	**49.550**	ug/l	49.55	1.0	5000	175	P	
238	**U**	1	**49.800**	ug/l	49.80	1.1	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	191937	1.27	240400	**79.8**	30	-	125	
45	Sc	1	2404487	2.02	2616000	**91.9**	30	-	125	
74	Ge	1	5406853	0.82	5524000	**97.9**	30	-	125	
103	Rh	1	7324346	1.17	7587000	**96.5**	30	-	125	
165	Ho	1	3263515	0.39	3139000	**104.0**	30	-	125	
175	Lu	1	2672496	0.92	2574000	**103.8**	30	-	125	
209	Bi	1	3206621	1.80	3148000	**101.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\043SMPL.D\043SMPL.D#
Date Acquired: Oct 18 2011 05:54 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.007**	ug/l	0.01	47.1	5000	6	P	
23	**Na**	1	**2.298**	ug/l	2.30	79.8	500000	45	P	
24	**Mg**	1	**0.198**	ug/l	0.20	6.1	500000	45	P	
27	**Al**	1	**0.091**	ug/l	0.09	332.0	500000	45	P	
31	**P**	1	**-1.644**	ug/l	-1.64	65.1	500000	45	P	
39	**K**	1	**-4.988**	ug/l	-4.99	35.7	500000	45	P	
44	**Ca**	1	**-1.319**	ug/l	-1.32	16.2	500000	45	P	
47	**Ti**	1	**0.233**	ug/l	0.23	8.9	5000	45	P	
51	**V**	1	**-0.100**	ug/l	-0.10	18.3	5000	45	P	
52	**Cr**	1	**0.002**	ug/l	0.00	216.3	5000	45	P	
57	**Fe**	1	**4.354**	ug/l	4.35	11.4	500000	74	P	
59	**Co**	1	**0.001**	ug/l	0.00	85.1	5000	45	P	
60	**Ni**	1	**-0.002**	ug/l	0.00	113.3	5000	74	P	
63	**Cu**	1	**0.008**	ug/l	0.01	57.7	5000	74	P	
66	**Zn**	1	**-0.047**	ug/l	-0.05	69.3	5000	74	P	
78	**Se**	1	**-0.019**	ug/l	-0.02	208.5	5000	74	P	
88	**Sr**	1	**-0.005**	ug/l	-0.01	46.1	5000	74	P	
95	**Mo**	1	**0.097**	ug/l	0.10	22.9	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	189.4	200	103	P	
111	**Cd**	1	**0.005**	ug/l	0.00	36.9	5000	103	P	
118	**Sn**	1	**0.216**	ug/l	0.22	23.2	5000	103	P	
135	**Ba**	1	**0.020**	ug/l	0.02	15.0	5000	103	P	
200	**Hg**	1	**0.031**	ug/l	0.03	20.3	50	175	P	
205	**Tl**	1	**0.261**	ug/l	0.26	13.3	5000	175	P	
208	**Pb**	1	**0.003**	ug/l	0.00	433.9	5000	175	P	
238	**U**	1	**0.013**	ug/l	0.01	15.2	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	197916	1.26	240400	**82.3**	30	-	125	
45	Sc	1	2459615	1.78	2616000	**94.0**	30	-	125	
74	Ge	1	5389313	0.77	5524000	**97.6**	30	-	125	
103	Rh	1	7540962	1.12	7587000	**99.4**	30	-	125	
165	Ho	1	3246208	0.97	3139000	**103.4**	30	-	125	
175	Lu	1	2682761	1.27	2574000	**104.2**	30	-	125	
209	Bi	1	3310683	2.55	3148000	**105.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\044SMPL.D\044SMPL.D#
Date Acquired: Oct 18 2011 05:59 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-6-B Vial Number: 2305
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.089**	ug/l	0.89	20.1	5000	6	P	
23	**Na**	1	**141.100**	ug/l	1,411.00	4.5	500000	45	P	
24	**Mg**	1	**4989.000**	ug/l	49,890.00	0.9	500000	45	A	
27	**Al**	1	**10080.000**	ug/l	100,800.00	4.0	500000	45	A	
31	**P**	1	**1112.000**	ug/l	11,120.00	3.7	500000	45	P	
39	**K**	1	**2540.000**	ug/l	25,400.00	2.2	500000	45	A	
44	**Ca**	1	**1098.000**	ug/l	10,980.00	2.2	500000	45	P	
47	**Ti**	1	**449.400**	ug/l	4,494.00	2.4	5000	45	P	
51	**V**	1	**62.320**	ug/l	623.20	2.5	5000	45	P	
52	**Cr**	1	**11.310**	ug/l	113.10	3.0	5000	45	P	
57	**Fe**	1	**125800.000**	ug/l	1,258,000.00	0.8	500000	74	A	
59	**Co**	1	**11.790**	ug/l	117.90	2.9	5000	45	P	
60	**Ni**	1	**2.527**	ug/l	25.27	1.4	5000	74	P	
63	**Cu**	1	**1155.000**	ug/l	11,550.00	0.1	5000	74	A	
66	**Zn**	1	**51.990**	ug/l	519.90	0.5	5000	74	P	
78	**Se**	1	**14.360**	ug/l	143.60	1.7	5000	74	P	
88	**Sr**	1	**6.065**	ug/l	60.65	0.2	5000	74	P	
95	**Mo**	1	**2.728**	ug/l	27.28	0.5	5000	103	P	
109	**Ag**	1	**4.876**	ug/l	48.76	1.0	200	103	P	
111	**Cd**	1	**0.254**	ug/l	2.54	7.1	5000	103	P	
118	**Sn**	1	**1.107**	ug/l	11.07	4.3	5000	103	P	
135	**Ba**	1	**46.170**	ug/l	461.70	2.0	5000	103	P	
200	**Hg**	1	**0.444**	ug/l	4.44	1.8	50	175	P	
205	**Tl**	1	**0.401**	ug/l	4.01	5.0	5000	175	P	
208	**Pb**	1	**34.660**	ug/l	346.60	1.6	5000	175	P	
238	**U**	1	**3.508**	ug/l	35.08	2.0	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	188432	1.05	240400	**78.4**	30	-	125	
45	Sc	1	2402216	1.62	2616000	**91.8**	30	-	125	
74	Ge	1	5183428	0.25	5524000	**93.8**	30	-	125	
103	Rh	1	7112451	0.86	7587000	**93.7**	30	-	125	
165	Ho	1	3200824	0.90	3139000	**102.0**	30	-	125	
175	Lu	1	2591164	1.46	2574000	**100.7**	30	-	125	
209	Bi	1	3549535	1.80	3148000	**112.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\045SMPL.D\045SMPL.D#
Date Acquired: Oct 18 2011 06:03 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-7-B Vial Number: 2306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**1.306**	ug/l	13.06	2.1	5000	6	P	
23	Na	1	**165.500**	ug/l	1,655.00	2.4	500000	45	P	
24	Mg	1	**5045.000**	ug/l	50,450.00	2.0	500000	45	A	
27	Al	1	**11510.000**	ug/l	115,100.00	4.9	500000	45	A	
31	P	1	**1436.000**	ug/l	14,360.00	2.9	500000	45	P	
39	K	1	**1711.000**	ug/l	17,110.00	6.9	500000	45	A	
44	Ca	1	**10470.000**	ug/l	104,700.00	3.8	500000	45	A	
47	Ti	1	**81.520**	ug/l	815.20	5.6	5000	45	P	
51	V	1	**189.300**	ug/l	1,893.00	2.0	5000	45	A	
52	Cr	1	**7.536**	ug/l	75.36	3.0	5000	45	P	
57	Fe	1	**186300.000**	ug/l	1,863,000.00	0.5	500000	74	A	
59	Co	1	**60.560**	ug/l	605.60	0.2	5000	45	A	
60	Ni	1	**6.145**	ug/l	61.45	0.8	5000	74	P	
63	Cu	1	**129.500**	ug/l	1,295.00	0.8	5000	74	A	
66	Zn	1	**1179.000**	ug/l	11,790.00	0.9	5000	74	A	
78	Se	1	**2.518**	ug/l	25.18	5.9	5000	74	P	
88	Sr	1	**50.310**	ug/l	503.10	0.7	5000	74	P	
95	Mo	1	**4.562**	ug/l	45.62	1.5	5000	103	P	
109	Ag	1	**21.240**	ug/l	212.40	1.4	200	103	P	
111	Cd	1	**11.520**	ug/l	115.20	2.8	5000	103	P	
118	Sn	1	**1.632**	ug/l	16.32	2.3	5000	103	P	
135	Ba	1	**116.400**	ug/l	1,164.00	1.6	5000	103	P	
200	Hg	1	**1.834**	ug/l	18.34	3.8	50	175	P	
205	Tl	1	**2.141**	ug/l	21.41	1.0	5000	175	P	
208	Pb	1	**828.200**	ug/l	8,282.00	0.4	5000	175	A	
238	U	1	**0.206**	ug/l	2.06	1.1	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	186634	1.76	240400	**77.6**	30	-	125	
45	Sc	1	2459864	1.38	2616000	**94.0**	30	-	125	
74	Ge	1	5018137	0.60	5524000	**90.8**	30	-	125	
103	Rh	1	6872486	1.06	7587000	**90.6**	30	-	125	
165	Ho	1	3118979	0.29	3139000	**99.4**	30	-	125	
175	Lu	1	2513472	0.79	2574000	**97.6**	30	-	125	
209	Bi	1	2981343	0.74	3148000	**94.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\046SMPL.D\046SMPL.D#
Date Acquired: Oct 18 2011 06:08 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-8-B Vial Number: 2307
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.137**	ug/l	1.37	15.3	5000	6	P	
23	**Na**	1	**139.400**	ug/l	1,394.00	5.8	500000	45	P	
24	**Mg**	1	**988.200**	ug/l	9,882.00	1.4	500000	45	A	
27	**Al**	1	**12610.000**	ug/l	126,100.00	2.2	500000	45	A	
31	**P**	1	**493.100**	ug/l	4,931.00	2.7	500000	45	P	
39	**K**	1	**254.900**	ug/l	2,549.00	1.3	500000	45	M	
44	**Ca**	1	**531.000**	ug/l	5,310.00	2.5	500000	45	P	
47	**Ti**	1	**726.400**	ug/l	7,264.00	3.3	5000	45	P	
51	**V**	1	**74.860**	ug/l	748.60	3.7	5000	45	M	
52	**Cr**	1	**5.819**	ug/l	58.19	3.9	5000	45	P	
57	**Fe**	1	**24770.000**	ug/l	247,700.00	1.3	500000	74	A	
59	**Co**	1	**4.006**	ug/l	40.06	2.6	5000	45	P	
60	**Ni**	1	**3.016**	ug/l	30.16	1.0	5000	74	P	
63	**Cu**	1	**9.426**	ug/l	94.26	1.5	5000	74	P	
66	**Zn**	1	**50.190**	ug/l	501.90	0.8	5000	74	P	
78	**Se**	1	**0.670**	ug/l	6.70	10.2	5000	74	P	
88	**Sr**	1	**4.970**	ug/l	49.70	1.7	5000	74	P	
95	**Mo**	1	**0.673**	ug/l	6.73	7.1	5000	103	P	
109	**Ag**	1	**1.204**	ug/l	12.04	1.7	200	103	P	
111	**Cd**	1	**0.470**	ug/l	4.70	1.7	5000	103	P	
118	**Sn**	1	**1.026**	ug/l	10.26	2.9	5000	103	P	
135	**Ba**	1	**16.130**	ug/l	161.30	2.4	5000	103	P	
200	**Hg**	1	**0.149**	ug/l	1.49	3.2	50	175	P	
205	**Tl**	1	**0.140**	ug/l	1.40	11.7	5000	175	P	
208	**Pb**	1	**42.460**	ug/l	424.60	2.2	5000	175	P	
238	**U**	1	**0.417**	ug/l	4.17	0.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	196720	0.89	240400	**81.8**	30	-	125	
45	Sc	1	2474875	2.69	2616000	**94.6**	30	-	125	
74	Ge	1	5273330	0.26	5524000	**95.5**	30	-	125	
103	Rh	1	7417975	0.72	7587000	**97.8**	30	-	125	
165	Ho	1	3237936	1.19	3139000	**103.2**	30	-	125	
175	Lu	1	2676781	2.10	2574000	**104.0**	30	-	125	
209	Bi	1	3241864	2.68	3148000	**103.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\047SMPL.D\047SMPL.D#
Date Acquired: Oct 18 2011 06:13 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-9-B Vial Number: 2308
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.137**	ug/l	1.37	19.9	5000	6	P	
23	**Na**	1	**36.720**	ug/l	367.20	3.8	500000	45	P	
24	**Mg**	1	**559.900**	ug/l	5,599.00	1.0	500000	45	A	
27	**Al**	1	**5229.000**	ug/l	52,290.00	2.2	500000	45	A	
31	**P**	1	**633.200**	ug/l	6,332.00	1.3	500000	45	P	
39	**K**	1	**2490.000**	ug/l	24,900.00	1.9	500000	45	A	
44	**Ca**	1	**978.200**	ug/l	9,782.00	1.3	500000	45	P	
47	**Ti**	1	**62.070**	ug/l	620.70	16.0	5000	45	P	
51	**V**	1	**26.250**	ug/l	262.50	0.9	5000	45	P	
52	**Cr**	1	**3.422**	ug/l	34.22	4.8	5000	45	P	
57	**Fe**	1	**280400.000**	ug/l	2,804,000.00	1.5	500000	74	A	
59	**Co**	1	**156.400**	ug/l	1,564.00	2.1	5000	45	A	
60	**Ni**	1	**18.470**	ug/l	184.70	1.8	5000	74	P	
63	**Cu**	1	**3451.000**	ug/l	34,510.00	1.4	5000	74	A	
66	**Zn**	1	**275.700**	ug/l	2,757.00	1.3	5000	74	P	
78	**Se**	1	**4.920**	ug/l	49.20	2.1	5000	74	P	
88	**Sr**	1	**1.314**	ug/l	13.14	6.3	5000	74	P	
95	**Mo**	1	**4.131**	ug/l	41.31	1.3	5000	103	P	
109	**Ag**	1	**140.500**	ug/l	1,405.00	0.1	200	103	A	
111	**Cd**	1	**1.062**	ug/l	10.62	12.0	5000	103	P	
118	**Sn**	1	**3.035**	ug/l	30.35	1.6	5000	103	P	
135	**Ba**	1	**35.060**	ug/l	350.60	2.6	5000	103	P	
200	**Hg**	1	**0.727**	ug/l	7.27	1.8	50	175	P	
205	**Tl**	1	**0.292**	ug/l	2.92	5.8	5000	175	P	
208	**Pb**	1	**2035.000**	ug/l	20,350.00	0.5	5000	175	A	
238	**U**	1	**0.273**	ug/l	2.73	28.0	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	180024	0.99	240400	**74.9**	30	-	125	
45	Sc	1	2239681	1.41	2616000	**85.6**	30	-	125	
74	Ge	1	4936283	1.22	5524000	**89.4**	30	-	125	
103	Rh	1	6783288	0.18	7587000	**89.4**	30	-	125	
165	Ho	1	3009698	0.78	3139000	**95.9**	30	-	125	
175	Lu	1	2433930	0.54	2574000	**94.6**	30	-	125	
209	Bi	1	12415720	0.91	3148000	**394.4**	30	-	125	**IS Fail**

Analytes: Pass **ISTD: Fail**

0 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\048SMPL.D\048SMPL.D#
Date Acquired: Oct 18 2011 06:18 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-10-B Vial Number: 2309
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.450**	ug/l	4.50	5.7	5000	6	P	
23	**Na**	1	**38.550**	ug/l	385.50	19.4	500000	45	P	
24	**Mg**	1	**2916.000**	ug/l	29,160.00	3.5	500000	45	A	
27	**Al**	1	**13990.000**	ug/l	139,900.00	2.1	500000	45	A	
31	**P**	1	**1115.000**	ug/l	11,150.00	3.2	500000	45	P	
39	**K**	1	**905.500**	ug/l	9,055.00	14.2	500000	45	A	
44	**Ca**	1	**5452.000**	ug/l	54,520.00	3.1	500000	45	P	
47	**Ti**	1	**115.600**	ug/l	1,156.00	3.2	5000	45	P	
51	**V**	1	**39.620**	ug/l	396.20	4.0	5000	45	P	
52	**Cr**	1	**11.050**	ug/l	110.50	2.1	5000	45	P	
57	**Fe**	1	**444000.000**	ug/l	4,440,000.00	0.5	500000	74	A	
59	**Co**	1	**138.800**	ug/l	1,388.00	3.0	5000	45	A	
60	**Ni**	1	**37.390**	ug/l	373.90	1.0	5000	74	P	
63	**Cu**	1	**1913.000**	ug/l	19,130.00	0.7	5000	74	A	
66	**Zn**	1	**881.000**	ug/l	8,810.00	0.9	5000	74	A	
78	**Se**	1	**4.299**	ug/l	42.99	1.0	5000	74	P	
88	**Sr**	1	**24.340**	ug/l	243.40	1.1	5000	74	P	
95	**Mo**	1	**14.190**	ug/l	141.90	1.8	5000	103	P	
109	**Ag**	1	**64.600**	ug/l	646.00	1.2	200	103	P	
111	**Cd**	1	**4.242**	ug/l	42.42	3.1	5000	103	P	
118	**Sn**	1	**1.083**	ug/l	10.83	4.6	5000	103	P	
135	**Ba**	1	**221.600**	ug/l	2,216.00	1.9	5000	103	P	
200	**Hg**	1	**1.224**	ug/l	12.24	1.5	50	175	P	
205	**Tl**	1	**0.234**	ug/l	2.34	3.4	5000	175	P	
208	**Pb**	1	**845.100**	ug/l	8,451.00	1.4	5000	175	A	
238	**U**	1	**1.000**	ug/l	10.00	1.2	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	180414	0.86	240400	**75.0**	30	-	125	
45	Sc	1	2169168	2.36	2616000	**82.9**	30	-	125	
74	Ge	1	4645961	0.54	5524000	**84.1**	30	-	125	
103	Rh	1	6437288	0.26	7587000	**84.8**	30	-	125	
165	Ho	1	2878955	0.33	3139000	**91.7**	30	-	125	
175	Lu	1	2337768	0.80	2574000	**90.8**	30	-	125	
209	Bi	1	6454745	0.25	3148000	**205.0**	30	-	125	**IS Fail**

Analytes: Pass **ISTD: Fail**

0 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\049SMPL.D\049SMPL.D#
Date Acquired: Oct 18 2011 06:23 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-11-B Vial Number: 2310
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.225**	ug/l	2.25	5.2	5000	6	P	
23	**Na**	1	**64.110**	ug/l	641.10	9.3	500000	45	P	
24	**Mg**	1	**8282.000**	ug/l	82,820.00	2.3	500000	45	A	
27	**Al**	1	**27720.000**	ug/l	277,200.00	2.5	500000	45	A	
31	**P**	1	**966.500**	ug/l	9,665.00	0.8	500000	45	P	
39	**K**	1	**4165.000**	ug/l	41,650.00	4.9	500000	45	A	
44	**Ca**	1	**1413.000**	ug/l	14,130.00	1.9	500000	45	P	
47	**Ti**	1	**85.520**	ug/l	855.20	13.2	5000	45	P	
51	**V**	1	**54.330**	ug/l	543.30	2.1	5000	45	P	
52	**Cr**	1	**10.840**	ug/l	108.40	1.7	5000	45	P	
57	**Fe**	1	**276300.000**	ug/l	2,763,000.00	1.5	500000	74	A	
59	**Co**	1	**58.140**	ug/l	581.40	2.5	5000	45	M	
60	**Ni**	1	**16.650**	ug/l	166.50	2.0	5000	74	P	
63	**Cu**	1	**1256.000**	ug/l	12,560.00	0.8	5000	74	A	
66	**Zn**	1	**282.200**	ug/l	2,822.00	1.7	5000	74	P	
78	**Se**	1	**2.224**	ug/l	22.24	4.9	5000	74	P	
88	**Sr**	1	**6.399**	ug/l	63.99	8.4	5000	74	P	
95	**Mo**	1	**11.370**	ug/l	113.70	2.1	5000	103	P	
109	**Ag**	1	**82.300**	ug/l	823.00	1.2	200	103	A	
111	**Cd**	1	**1.304**	ug/l	13.04	1.9	5000	103	P	
118	**Sn**	1	**4.279**	ug/l	42.79	4.3	5000	103	P	
135	**Ba**	1	**142.600**	ug/l	1,426.00	1.7	5000	103	P	
200	**Hg**	1	**2.638**	ug/l	26.38	1.1	50	175	P	
205	**Tl**	1	**0.377**	ug/l	3.77	2.5	5000	175	P	
208	**Pb**	1	**2976.000**	ug/l	29,760.00	0.7	5000	175	A	
238	**U**	1	**0.568**	ug/l	5.68	3.1	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	191671	0.77	240400	**79.7**	30	-	125	
45	Sc	1	2273526	1.26	2616000	**86.9**	30	-	125	
74	Ge	1	4797104	1.15	5524000	**86.8**	30	-	125	
103	Rh	1	6572193	0.70	7587000	**86.6**	30	-	125	
165	Ho	1	2929179	1.50	3139000	**93.3**	30	-	125	
175	Lu	1	2398533	0.58	2574000	**93.2**	30	-	125	
209	Bi	1	8148140	0.41	3148000	**258.8**	30	-	125	**IS Fail**

Analytes: Pass **ISTD: Fail**

0 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\050SMPL.D\050SMPL.D#
Date Acquired: Oct 18 2011 06:28 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**49.900**	ug/l	49.90	0.6	5000	6	P	
23	Na	1	**4733.000**	ug/l	4,733.00	0.7	500000	45	A	
24	Mg	1	**4708.000**	ug/l	4,708.00	1.7	500000	45	A	
27	Al	1	**478.500**	ug/l	478.50	1.8	500000	45	P	
31	P	1	**4658.000**	ug/l	4,658.00	0.5	500000	45	P	
39	K	1	**4824.000**	ug/l	4,824.00	1.4	500000	45	A	
44	Ca	1	**4841.000**	ug/l	4,841.00	0.6	500000	45	P	
47	Ti	1	**48.630**	ug/l	48.63	1.1	5000	45	P	
51	V	1	**49.030**	ug/l	49.03	0.9	5000	45	P	
52	Cr	1	**49.330**	ug/l	49.33	0.4	5000	45	P	
57	Fe	1	**4949.000**	ug/l	4,949.00	3.9	500000	74	A	
59	Co	1	**50.390**	ug/l	50.39	1.1	5000	45	P	
60	Ni	1	**48.150**	ug/l	48.15	2.8	5000	74	P	
63	Cu	1	**48.850**	ug/l	48.85	2.1	5000	74	P	
66	Zn	1	**50.730**	ug/l	50.73	3.2	5000	74	P	
78	Se	1	**48.040**	ug/l	48.04	1.1	5000	74	P	
88	Sr	1	**48.210**	ug/l	48.21	1.7	5000	74	P	
95	Mo	1	**48.070**	ug/l	48.07	1.4	5000	103	P	
109	Ag	1	**50.600**	ug/l	50.60	1.1	200	103	P	
111	Cd	1	**49.940**	ug/l	49.94	0.8	5000	103	P	
118	Sn	1	**49.230**	ug/l	49.23	1.0	5000	103	P	
135	Ba	1	**50.350**	ug/l	50.35	1.3	5000	103	P	
200	Hg	1	**2.441**	ug/l	2.44	3.5	50	175	P	
205	Tl	1	**52.640**	ug/l	52.64	4.9	5000	175	A	
208	Pb	1	**48.960**	ug/l	48.96	2.1	5000	175	P	
238	U	1	**49.930**	ug/l	49.93	2.6	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	200971	0.63	240400	**83.6**	30	-	125	
45	Sc	1	2430660	1.04	2616000	**92.9**	30	-	125	
74	Ge	1	5298571	1.82	5524000	**95.9**	30	-	125	
103	Rh	1	7173523	0.92	7587000	**94.6**	30	-	125	
165	Ho	1	3180698	0.60	3139000	**101.3**	30	-	125	
175	Lu	1	2644264	1.98	2574000	**102.7**	30	-	125	
209	Bi	1	3169214	4.08	3148000	**100.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\051SMPL.D\051SMPL.D#
Date Acquired: Oct 18 2011 06:32 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.005**	ug/l	0.01	43.8	5000	6	P	
23	Na	1	**2.555**	ug/l	2.56	82.0	500000	45	P	
24	Mg	1	**0.195**	ug/l	0.20	6.7	500000	45	P	
27	Al	1	**1.748**	ug/l	1.75	19.7	500000	45	P	
31	P	1	**0.141**	ug/l	0.14	877.6	500000	45	P	
39	K	1	**-5.299**	ug/l	-5.30	41.5	500000	45	P	
44	Ca	1	**-2.550**	ug/l	-2.55	10.3	500000	45	P	
47	Ti	1	**0.130**	ug/l	0.13	9.2	5000	45	P	
51	V	1	**-0.078**	ug/l	-0.08	17.5	5000	45	P	
52	Cr	1	**0.001**	ug/l	0.00	329.5	5000	45	P	
57	Fe	1	**5.781**	ug/l	5.78	12.0	500000	74	P	
59	Co	1	**0.002**	ug/l	0.00	48.3	5000	45	P	
60	Ni	1	**0.000**	ug/l	0.00	12962.0	5000	74	P	
63	Cu	1	**0.032**	ug/l	0.03	31.6	5000	74	P	
66	Zn	1	**-0.044**	ug/l	-0.04	31.8	5000	74	P	
78	Se	1	**-0.047**	ug/l	-0.05	52.7	5000	74	P	
88	Sr	1	**-0.004**	ug/l	0.00	113.9	5000	74	P	
95	Mo	1	**0.087**	ug/l	0.09	44.2	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	95.4	200	103	P	
111	Cd	1	**-0.002**	ug/l	0.00	326.0	5000	103	P	
118	Sn	1	**0.163**	ug/l	0.16	17.5	5000	103	P	
135	Ba	1	**0.015**	ug/l	0.02	91.9	5000	103	P	
200	Hg	1	**0.031**	ug/l	0.03	11.9	50	175	P	
205	Tl	1	**0.202**	ug/l	0.20	13.1	5000	175	P	
208	Pb	1	**0.038**	ug/l	0.04	24.8	5000	175	P	
238	U	1	**0.015**	ug/l	0.01	11.0	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	199313	0.53	240400	**82.9**	30	-	125	
45	Sc	1	2376022	2.72	2616000	**90.8**	30	-	125	
74	Ge	1	5211804	0.42	5524000	**94.3**	30	-	125	
103	Rh	1	7407886	1.21	7587000	**97.6**	30	-	125	
165	Ho	1	3172963	0.99	3139000	**101.1**	30	-	125	
175	Lu	1	2622731	1.90	2574000	**101.9**	30	-	125	
209	Bi	1	3271962	0.52	3148000	**103.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\052SMPL.D\052SMPL.D#
Date Acquired: Oct 18 2011 06:37 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-12-B Vial Number: 2401
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.279**	ug/l	2.79	3.9	5000	6	P	
23	**Na**	1	**166.700**	ug/l	1,667.00	4.1	500000	45	P	
24	**Mg**	1	**8867.000**	ug/l	88,670.00	1.0	500000	45	A	
27	**Al**	1	**32470.000**	ug/l	324,700.00	2.4	500000	45	A	
31	**P**	1	**1013.000**	ug/l	10,130.00	0.9	500000	45	P	
39	**K**	1	**6892.000**	ug/l	68,920.00	1.6	500000	45	A	
44	**Ca**	1	**771.100**	ug/l	7,711.00	1.0	500000	45	P	
47	**Ti**	1	**80.400**	ug/l	804.00	7.1	5000	45	P	
51	**V**	1	**42.220**	ug/l	422.20	1.6	5000	45	P	
52	**Cr**	1	**11.770**	ug/l	117.70	1.8	5000	45	P	
57	**Fe**	1	**179700.000**	ug/l	1,797,000.00	1.3	500000	74	A	
59	**Co**	1	**15.710**	ug/l	157.10	1.2	5000	45	P	
60	**Ni**	1	**20.250**	ug/l	202.50	1.4	5000	74	P	
63	**Cu**	1	**485.000**	ug/l	4,850.00	1.2	5000	74	A	
66	**Zn**	1	**380.600**	ug/l	3,806.00	1.3	5000	74	P	
78	**Se**	1	**1.379**	ug/l	13.79	5.4	5000	74	P	
88	**Sr**	1	**13.590**	ug/l	135.90	1.2	5000	74	P	
95	**Mo**	1	**14.270**	ug/l	142.70	1.8	5000	103	P	
109	**Ag**	1	**21.030**	ug/l	210.30	1.7	200	103	P	
111	**Cd**	1	**1.766**	ug/l	17.66	6.2	5000	103	P	
118	**Sn**	1	**2.517**	ug/l	25.17	1.2	5000	103	P	
135	**Ba**	1	**213.700**	ug/l	2,137.00	1.4	5000	103	P	
200	**Hg**	1	**2.321**	ug/l	23.21	0.5	50	175	P	
205	**Tl**	1	**0.709**	ug/l	7.09	2.7	5000	175	P	
208	**Pb**	1	**2431.000**	ug/l	24,310.00	0.7	5000	175	A	
238	**U**	1	**0.260**	ug/l	2.60	1.7	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	189646	0.77	240400	**78.9**	30	-	125	
45	Sc	1	2324865	1.51	2616000	**88.9**	30	-	125	
74	Ge	1	4964282	0.77	5524000	**89.9**	30	-	125	
103	Rh	1	6739380	0.85	7587000	**88.8**	30	-	125	
165	Ho	1	3003139	1.88	3139000	**95.7**	30	-	125	
175	Lu	1	2489912	0.59	2574000	**96.7**	30	-	125	
209	Bi	1	4539849	1.43	3148000	**144.2**	30	-	125	**IS Fail**

Analytes: Pass **ISTD: Fail**

0 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\053SMPL.D\053SMPL.D#
Date Acquired: Oct 18 2011 06:42 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-13-B Vial Number: 2402
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.453**	ug/l	4.53	4.6	5000	6	P	
23	**Na**	1	**59.310**	ug/l	593.10	17.6	500000	45	M	
24	**Mg**	1	**5749.000**	ug/l	57,490.00	1.4	500000	45	A	
27	**Al**	1	**17100.000**	ug/l	171,000.00	1.7	500000	45	A	
31	**P**	1	**969.200**	ug/l	9,692.00	1.8	500000	45	P	
39	**K**	1	**3205.000**	ug/l	32,050.00	1.7	500000	45	A	
44	**Ca**	1	**1701.000**	ug/l	17,010.00	1.8	500000	45	P	
47	**Ti**	1	**59.290**	ug/l	592.90	6.4	5000	45	P	
51	**V**	1	**29.980**	ug/l	299.80	2.1	5000	45	P	
52	**Cr**	1	**8.541**	ug/l	85.41	2.5	5000	45	P	
57	**Fe**	1	**208100.000**	ug/l	2,081,000.00	1.0	500000	74	A	
59	**Co**	1	**104.800**	ug/l	1,048.00	1.5	5000	45	A	
60	**Ni**	1	**23.960**	ug/l	239.60	2.1	5000	74	P	
63	**Cu**	1	**811.400**	ug/l	8,114.00	1.8	5000	74	A	
66	**Zn**	1	**346.900**	ug/l	3,469.00	1.2	5000	74	P	
78	**Se**	1	**4.243**	ug/l	42.43	1.3	5000	74	P	
88	**Sr**	1	**3.234**	ug/l	32.34	3.6	5000	74	P	
95	**Mo**	1	**4.219**	ug/l	42.19	1.5	5000	103	P	
109	**Ag**	1	**93.730**	ug/l	937.30	0.5	200	103	A	
111	**Cd**	1	**2.272**	ug/l	22.72	3.7	5000	103	P	
118	**Sn**	1	**2.475**	ug/l	24.75	2.7	5000	103	P	
135	**Ba**	1	**69.700**	ug/l	697.00	4.3	5000	103	P	
200	**Hg**	1	**1.079**	ug/l	10.79	0.8	50	175	P	
205	**Tl**	1	**0.430**	ug/l	4.30	2.9	5000	175	P	
208	**Pb**	1	**1530.000**	ug/l	15,300.00	1.8	5000	175	A	
238	**U**	1	**0.478**	ug/l	4.78	1.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	188517	1.25	240400	**78.4**	30	-	125	
45	Sc	1	2285754	2.26	2616000	**87.4**	30	-	125	
74	Ge	1	4886126	1.31	5524000	**88.5**	30	-	125	
103	Rh	1	6748351	1.30	7587000	**88.9**	30	-	125	
165	Ho	1	3006327	1.75	3139000	**95.8**	30	-	125	
175	Lu	1	2466403	1.46	2574000	**95.8**	30	-	125	
209	Bi	1	9219885	0.73	3148000	**292.9**	30	-	125	**IS Fail**

Analytes: Pass **ISTD: Fail**

0 :Element Failures **0** :Max. Number of Failures Allowed
1 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\054SMPL.D\054SMPL.D#
Date Acquired: Oct 18 2011 06:47 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-14-B Vial Number: 2403
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.024**	ug/l	0.24	43.7	5000	6	P	
23	Na	1	**171.200**	ug/l	1,712.00	7.2	500000	45	M	
24	Mg	1	**103.500**	ug/l	1,035.00	2.6	500000	45	P	
27	Al	1	**1067.000**	ug/l	10,670.00	5.0	500000	45	A	
31	P	1	**108.000**	ug/l	1,080.00	3.7	500000	45	P	
39	K	1	**138.200**	ug/l	1,382.00	9.9	500000	45	P	
44	Ca	1	**144.300**	ug/l	1,443.00	4.3	500000	45	P	
47	Ti	1	**226.300**	ug/l	2,263.00	3.7	5000	45	P	
51	V	1	**13.320**	ug/l	133.20	1.6	5000	45	P	
52	Cr	1	**1.715**	ug/l	17.15	1.4	5000	45	P	
57	Fe	1	**4071.000**	ug/l	40,710.00	2.1	500000	74	A	
59	Co	1	**1.073**	ug/l	10.73	4.9	5000	45	P	
60	Ni	1	**1.302**	ug/l	13.02	3.1	5000	74	P	
63	Cu	1	**2.132**	ug/l	21.32	3.4	5000	74	P	
66	Zn	1	**9.246**	ug/l	92.46	1.7	5000	74	P	
78	Se	1	**0.056**	ug/l	0.56	51.2	5000	74	P	
88	Sr	1	**2.992**	ug/l	29.92	1.5	5000	74	P	
95	Mo	1	**0.222**	ug/l	2.22	4.7	5000	103	P	
109	Ag	1	**0.244**	ug/l	2.44	7.8	200	103	P	
111	Cd	1	**0.097**	ug/l	0.97	17.7	5000	103	P	
118	Sn	1	**0.291**	ug/l	2.91	11.9	5000	103	P	
135	Ba	1	**5.611**	ug/l	56.11	5.4	5000	103	P	
200	Hg	1	**0.069**	ug/l	0.69	10.7	50	175	P	
205	Tl	1	**0.046**	ug/l	0.46	14.8	5000	175	P	
208	Pb	1	**1.936**	ug/l	19.36	1.4	5000	175	P	
238	U	1	**0.070**	ug/l	0.70	24.2	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	198050	2.28	240400	**82.4**	30	-	125	
45	Sc	1	2374899	1.60	2616000	**90.8**	30	-	125	
74	Ge	1	5209900	1.04	5524000	**94.3**	30	-	125	
103	Rh	1	7273370	0.94	7587000	**95.9**	30	-	125	
165	Ho	1	3208870	0.98	3139000	**102.2**	30	-	125	
175	Lu	1	2640152	1.30	2574000	**102.6**	30	-	125	
209	Bi	1	3273940	2.71	3148000	**104.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\055SMPL.D\055SMPL.D#
Date Acquired: Oct 18 2011 06:52 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-15-B Vial Number: 2404
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.233**	ug/l	2.33	14.7	5000	6	P	
23	**Na**	1	**112.800**	ug/l	1,128.00	12.9	500000	45	P	
24	**Mg**	1	**1007.000**	ug/l	10,070.00	2.5	500000	45	A	
27	**Al**	1	**9281.000**	ug/l	92,810.00	1.2	500000	45	A	
31	**P**	1	**355.100**	ug/l	3,551.00	0.6	500000	45	P	
39	**K**	1	**356.200**	ug/l	3,562.00	10.7	500000	45	M	
44	**Ca**	1	**1232.000**	ug/l	12,320.00	0.8	500000	45	P	
47	**Ti**	1	**563.500**	ug/l	5,635.00	2.5	5000	45	P	
51	**V**	1	**31.150**	ug/l	311.50	2.2	5000	45	P	
52	**Cr**	1	**5.966**	ug/l	59.66	2.9	5000	45	P	
57	**Fe**	1	**18860.000**	ug/l	188,600.00	1.4	500000	74	A	
59	**Co**	1	**3.748**	ug/l	37.48	1.9	5000	45	P	
60	**Ni**	1	**4.663**	ug/l	46.63	3.6	5000	74	P	
63	**Cu**	1	**20.800**	ug/l	208.00	1.0	5000	74	P	
66	**Zn**	1	**38.940**	ug/l	389.40	2.2	5000	74	P	
78	**Se**	1	**0.867**	ug/l	8.67	6.1	5000	74	P	
88	**Sr**	1	**7.500**	ug/l	75.00	1.5	5000	74	P	
95	**Mo**	1	**2.545**	ug/l	25.45	1.0	5000	103	P	
109	**Ag**	1	**0.610**	ug/l	6.10	2.6	200	103	P	
111	**Cd**	1	**0.333**	ug/l	3.33	37.4	5000	103	P	
118	**Sn**	1	**0.747**	ug/l	7.47	6.2	5000	103	P	
135	**Ba**	1	**20.820**	ug/l	208.20	3.0	5000	103	P	
200	**Hg**	1	**0.145**	ug/l	1.45	4.3	50	175	P	
205	**Tl**	1	**0.102**	ug/l	1.02	8.1	5000	175	P	
208	**Pb**	1	**31.920**	ug/l	319.20	1.8	5000	175	P	
238	**U**	1	**0.339**	ug/l	3.39	5.4	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	195642	0.56	240400	**81.4**	30	-	125	
45	Sc	1	2414444	1.57	2616000	**92.3**	30	-	125	
74	Ge	1	5203412	0.74	5524000	**94.2**	30	-	125	
103	Rh	1	7285807	1.14	7587000	**96.0**	30	-	125	
165	Ho	1	3235642	0.72	3139000	**103.1**	30	-	125	
175	Lu	1	2681361	1.29	2574000	**104.2**	30	-	125	
209	Bi	1	3228364	2.50	3148000	**102.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\056SMPL.D\056SMPL.D#
Date Acquired: Oct 18 2011 06:57 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-16-B Vial Number: 2405
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.922**	ug/l	9.22	5.3	5000	6	P	
23	**Na**	1	**90.780**	ug/l	907.80	8.2	500000	45	P	
24	**Mg**	1	**5507.000**	ug/l	55,070.00	1.5	500000	45	A	
27	**Al**	1	**19380.000**	ug/l	193,800.00	1.1	500000	45	A	
31	**P**	1	**1093.000**	ug/l	10,930.00	1.8	500000	45	P	
39	**K**	1	**1943.000**	ug/l	19,430.00	1.2	500000	45	A	
44	**Ca**	1	**9081.000**	ug/l	90,810.00	1.7	500000	45	P	
47	**Ti**	1	**408.500**	ug/l	4,085.00	0.7	5000	45	P	
51	**V**	1	**57.780**	ug/l	577.80	1.9	5000	45	P	
52	**Cr**	1	**10.230**	ug/l	102.30	1.2	5000	45	P	
57	**Fe**	1	**93700.000**	ug/l	937,000.00	0.6	500000	74	A	
59	**Co**	1	**43.620**	ug/l	436.20	2.2	5000	45	P	
60	**Ni**	1	**37.780**	ug/l	377.80	1.3	5000	74	P	
63	**Cu**	1	**268.500**	ug/l	2,685.00	1.5	5000	74	A	
66	**Zn**	1	**2811.000**	ug/l	28,110.00	1.5	5000	74	A	
78	**Se**	1	**2.370**	ug/l	23.70	6.2	5000	74	P	
88	**Sr**	1	**20.500**	ug/l	205.00	0.8	5000	74	P	
95	**Mo**	1	**2.383**	ug/l	23.83	2.3	5000	103	P	
109	**Ag**	1	**12.610**	ug/l	126.10	1.5	200	103	P	
111	**Cd**	1	**21.340**	ug/l	213.40	1.3	5000	103	P	
118	**Sn**	1	**0.837**	ug/l	8.37	3.1	5000	103	P	
135	**Ba**	1	**56.840**	ug/l	568.40	0.7	5000	103	P	
200	**Hg**	1	**0.524**	ug/l	5.24	6.3	50	175	P	
205	**Tl**	1	**0.636**	ug/l	6.36	2.5	5000	175	P	
208	**Pb**	1	**1970.000**	ug/l	19,700.00	1.4	5000	175	A	
238	**U**	1	**0.450**	ug/l	4.50	3.7	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	187901	0.40	240400	**78.2**	30	-	125	
45	Sc	1	2344753	1.31	2616000	**89.6**	30	-	125	
74	Ge	1	5081593	0.55	5524000	**92.0**	30	-	125	
103	Rh	1	6874883	0.93	7587000	**90.6**	30	-	125	
165	Ho	1	3168959	1.30	3139000	**101.0**	30	-	125	
175	Lu	1	2571221	1.99	2574000	**99.9**	30	-	125	
209	Bi	1	3078584	1.26	3148000	**97.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\057SMPL.D\057SMPL.D#
Date Acquired: Oct 18 2011 07:01 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-17-B Vial Number: 2406
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.795**	ug/l	7.95	8.3	5000	6	P	
23	**Na**	1	**99.700**	ug/l	997.00	11.4	500000	45	P	
24	**Mg**	1	**5509.000**	ug/l	55,090.00	1.7	500000	45	A	
27	**Al**	1	**18090.000**	ug/l	180,900.00	1.6	500000	45	A	
31	**P**	1	**1101.000**	ug/l	11,010.00	2.2	500000	45	P	
39	**K**	1	**2095.000**	ug/l	20,950.00	1.7	500000	45	A	
44	**Ca**	1	**8479.000**	ug/l	84,790.00	1.5	500000	45	P	
47	**Ti**	1	**408.000**	ug/l	4,080.00	0.8	5000	45	P	
51	**V**	1	**55.420**	ug/l	554.20	1.5	5000	45	P	
52	**Cr**	1	**10.370**	ug/l	103.70	1.3	5000	45	P	
57	**Fe**	1	**93770.000**	ug/l	937,700.00	1.0	500000	74	A	
59	**Co**	1	**41.390**	ug/l	413.90	2.3	5000	45	P	
60	**Ni**	1	**30.370**	ug/l	303.70	0.8	5000	74	P	
63	**Cu**	1	**266.700**	ug/l	2,667.00	1.4	5000	74	A	
66	**Zn**	1	**2702.000**	ug/l	27,020.00	1.1	5000	74	A	
78	**Se**	1	**2.531**	ug/l	25.31	3.3	5000	74	P	
88	**Sr**	1	**18.130**	ug/l	181.30	1.4	5000	74	P	
95	**Mo**	1	**2.284**	ug/l	22.84	0.9	5000	103	P	
109	**Ag**	1	**28.060**	ug/l	280.60	0.7	200	103	P	
111	**Cd**	1	**16.070**	ug/l	160.70	1.7	5000	103	P	
118	**Sn**	1	**1.217**	ug/l	12.17	2.8	5000	103	P	
135	**Ba**	1	**52.150**	ug/l	521.50	1.4	5000	103	P	
200	**Hg**	1	**1.081**	ug/l	10.81	2.0	50	175	P	
205	**Tl**	1	**0.626**	ug/l	6.26	2.6	5000	175	P	
208	**Pb**	1	**5099.000**	ug/l	50,990.00	0.9	5000	175	A	Fail
238	**U**	1	**0.442**	ug/l	4.42	2.5	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	186656	1.30	240400	**77.6**	30	-	125	
45	Sc	1	2370532	1.23	2616000	**90.6**	30	-	125	
74	Ge	1	5079611	0.80	5524000	**92.0**	30	-	125	
103	Rh	1	6935972	0.97	7587000	**91.4**	30	-	125	
165	Ho	1	3147503	1.79	3139000	**100.3**	30	-	125	
175	Lu	1	2590476	0.67	2574000	**100.6**	30	-	125	
209	Bi	1	3073727	2.41	3148000	**97.6**	30	-	125	

Analytes: **Fail** **ISTD:** **Pass**

1 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\058SMPL.D\058SMPL.D#
Date Acquired: Oct 18 2011 07:06 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.710**	ug/l	49.71	1.3	5000	6	P	
23	**Na**	1	**4699.000**	ug/l	4,699.00	0.1	500000	45	A	
24	**Mg**	1	**4694.000**	ug/l	4,694.00	1.0	500000	45	A	
27	**Al**	1	**468.900**	ug/l	468.90	1.9	500000	45	P	
31	**P**	1	**4653.000**	ug/l	4,653.00	1.6	500000	45	P	
39	**K**	1	**4880.000**	ug/l	4,880.00	1.1	500000	45	A	
44	**Ca**	1	**4864.000**	ug/l	4,864.00	1.0	500000	45	P	
47	**Ti**	1	**49.320**	ug/l	49.32	1.4	5000	45	P	
51	**V**	1	**49.030**	ug/l	49.03	2.1	5000	45	P	
52	**Cr**	1	**49.600**	ug/l	49.60	1.6	5000	45	P	
57	**Fe**	1	**4900.000**	ug/l	4,900.00	3.0	500000	74	A	
59	**Co**	1	**50.460**	ug/l	50.46	1.2	5000	45	P	
60	**Ni**	1	**48.090**	ug/l	48.09	1.2	5000	74	P	
63	**Cu**	1	**48.700**	ug/l	48.70	0.9	5000	74	P	
66	**Zn**	1	**50.810**	ug/l	50.81	0.9	5000	74	P	
78	**Se**	1	**48.790**	ug/l	48.79	0.4	5000	74	P	
88	**Sr**	1	**49.030**	ug/l	49.03	0.7	5000	74	P	
95	**Mo**	1	**47.920**	ug/l	47.92	0.7	5000	103	P	
109	**Ag**	1	**50.380**	ug/l	50.38	1.0	200	103	P	
111	**Cd**	1	**50.170**	ug/l	50.17	0.9	5000	103	P	
118	**Sn**	1	**49.330**	ug/l	49.33	0.4	5000	103	P	
135	**Ba**	1	**51.360**	ug/l	51.36	0.6	5000	103	P	
200	**Hg**	1	**2.439**	ug/l	2.44	4.2	50	175	P	
205	**Tl**	1	**54.330**	ug/l	54.33	1.6	5000	175	A	
208	**Pb**	1	**49.920**	ug/l	49.92	3.2	5000	175	P	
238	**U**	1	**51.120**	ug/l	51.12	0.4	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	190960	0.79	240400	**79.4**	30	-	125	
45	Sc	1	2390983	1.26	2616000	**91.4**	30	-	125	
74	Ge	1	5222197	1.36	5524000	**94.5**	30	-	125	
103	Rh	1	7214988	0.97	7587000	**95.1**	30	-	125	
165	Ho	1	3231035	1.98	3139000	**102.9**	30	-	125	
175	Lu	1	2650038	3.27	2574000	**103.0**	30	-	125	
209	Bi	1	3229727	3.48	3148000	**102.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\059SMPL.D\059SMPL.D#
Date Acquired: Oct 18 2011 07:11 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.00	50.3	5000	6	P	
23	**Na**	1	**3.069**	ug/l	3.07	18.7	500000	45	P	
24	**Mg**	1	**0.227**	ug/l	0.23	20.1	500000	45	P	
27	**Al**	1	**1.216**	ug/l	1.22	54.2	500000	45	P	
31	**P**	1	**-1.700**	ug/l	-1.70	78.1	500000	45	P	
39	**K**	1	**-6.187**	ug/l	-6.19	9.2	500000	45	P	
44	**Ca**	1	**-2.174**	ug/l	-2.17	32.3	500000	45	P	
47	**Ti**	1	**0.162**	ug/l	0.16	8.2	5000	45	P	
51	**V**	1	**-0.077**	ug/l	-0.08	5.1	5000	45	P	
52	**Cr**	1	**0.013**	ug/l	0.01	43.6	5000	45	P	
57	**Fe**	1	**4.376**	ug/l	4.38	13.5	500000	74	P	
59	**Co**	1	**0.001**	ug/l	0.00	71.7	5000	45	P	
60	**Ni**	1	**-0.007**	ug/l	-0.01	38.0	5000	74	P	
63	**Cu**	1	**0.010**	ug/l	0.01	67.8	5000	74	P	
66	**Zn**	1	**-0.003**	ug/l	0.00	986.8	5000	74	P	
78	**Se**	1	**-0.051**	ug/l	-0.05	189.3	5000	74	P	
88	**Sr**	1	**-0.001**	ug/l	0.00	527.8	5000	74	P	
95	**Mo**	1	**0.094**	ug/l	0.09	26.0	5000	103	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	177.9	200	103	P	
111	**Cd**	1	**0.002**	ug/l	0.00	281.7	5000	103	P	
118	**Sn**	1	**0.193**	ug/l	0.19	14.6	5000	103	P	
135	**Ba**	1	**0.008**	ug/l	0.01	167.6	5000	103	P	
200	**Hg**	1	**0.028**	ug/l	0.03	22.0	50	175	P	
205	**Tl**	1	**0.200**	ug/l	0.20	17.0	5000	175	P	
208	**Pb**	1	**0.062**	ug/l	0.06	2.2	5000	175	P	
238	**U**	1	**0.014**	ug/l	0.01	7.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	190890	0.52	240400	**79.4**	30	-	125	
45	Sc	1	2370291	0.55	2616000	**90.6**	30	-	125	
74	Ge	1	5252513	0.15	5524000	**95.1**	30	-	125	
103	Rh	1	7474286	0.67	7587000	**98.5**	30	-	125	
165	Ho	1	3291625	1.79	3139000	**104.9**	30	-	125	
175	Lu	1	2697015	1.26	2574000	**104.8**	30	-	125	
209	Bi	1	3325507	1.45	3148000	**105.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\060SMPL.D\060SMPL.D#
Date Acquired: Oct 18 2011 07:16 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-97974/20-A Vial Number: 2501
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.009**	ug/l	0.09	1.5	5000	6	P	
23	Na	1	**4.528**	ug/l	45.28	36.5	500000	45	P	
24	Mg	1	**0.333**	ug/l	3.33	18.9	500000	45	P	
27	Al	1	**0.896**	ug/l	8.96	9.0	500000	45	P	
31	P	1	**-0.803**	ug/l	-8.03	164.4	500000	45	P	
39	K	1	**-6.306**	ug/l	-63.06	35.8	500000	45	P	
44	Ca	1	**-2.839**	ug/l	-28.39	29.2	500000	45	P	
47	Ti	1	**0.176**	ug/l	1.76	15.1	5000	45	P	
51	V	1	**-0.075**	ug/l	-0.75	18.0	5000	45	P	
52	Cr	1	**0.030**	ug/l	0.30	48.6	5000	45	P	
57	Fe	1	**3.438**	ug/l	34.38	16.9	500000	74	P	
59	Co	1	**0.000**	ug/l	0.00	577.1	5000	45	P	
60	Ni	1	**0.092**	ug/l	0.92	8.7	5000	74	P	
63	Cu	1	**0.066**	ug/l	0.66	4.8	5000	74	P	
66	Zn	1	**0.041**	ug/l	0.41	16.5	5000	74	P	
78	Se	1	**-0.099**	ug/l	-0.99	26.3	5000	74	P	
88	Sr	1	**0.012**	ug/l	0.12	71.0	5000	74	P	
95	Mo	1	**0.021**	ug/l	0.21	29.2	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	22.7	200	103	P	
111	Cd	1	**0.005**	ug/l	0.05	135.5	5000	103	P	
118	Sn	1	**0.090**	ug/l	0.90	20.8	5000	103	P	
135	Ba	1	**0.013**	ug/l	0.13	92.8	5000	103	P	
200	Hg	1	**0.020**	ug/l	0.20	23.3	50	175	P	
205	Tl	1	**0.073**	ug/l	0.73	23.0	5000	175	P	
208	Pb	1	**0.051**	ug/l	0.51	5.0	5000	175	P	
238	U	1	**0.004**	ug/l	0.04	12.5	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	190589	1.47	240400	**79.3**	30	-	125	
45	Sc	1	2384739	1.73	2616000	**91.2**	30	-	125	
74	Ge	1	5278111	0.58	5524000	**95.5**	30	-	125	
103	Rh	1	7442234	0.53	7587000	**98.1**	30	-	125	
165	Ho	1	3246352	0.06	3139000	**103.4**	30	-	125	
175	Lu	1	2686623	0.89	2574000	**104.4**	30	-	125	
209	Bi	1	3348038	1.49	3148000	**106.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\061SMPL.D\061SMPL.D#
Date Acquired: Oct 18 2011 07:21 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-97974/21-A Vial Number: 2502
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.047**	ug/l	102.35	3.0	5000	6	P	
23	**Na**	1	**398.000**	ug/l	19,900.00	0.5	500000	45	A	
24	**Mg**	1	**402.300**	ug/l	20,115.00	2.2	500000	45	P	
27	**Al**	1	**77.950**	ug/l	3,897.50	2.0	500000	45	P	
31	**P**	1	**365.900**	ug/l	18,295.00	2.5	500000	45	P	
39	**K**	1	**402.500**	ug/l	20,125.00	0.9	500000	45	A	
44	**Ca**	1	**402.600**	ug/l	20,130.00	1.6	500000	45	P	
47	**Ti**	1	**97.440**	ug/l	4,872.00	1.4	5000	45	P	
51	**V**	1	**20.420**	ug/l	1,021.00	1.9	5000	45	P	
52	**Cr**	1	**8.289**	ug/l	414.45	2.6	5000	45	P	
57	**Fe**	1	**433.400**	ug/l	21,670.00	0.8	500000	74	P	
59	**Co**	1	**21.360**	ug/l	1,068.00	2.0	5000	45	P	
60	**Ni**	1	**19.840**	ug/l	992.00	2.2	5000	74	P	
63	**Cu**	1	**10.210**	ug/l	510.50	2.7	5000	74	P	
66	**Zn**	1	**20.550**	ug/l	1,027.50	0.4	5000	74	P	
78	**Se**	1	**78.750**	ug/l	3,937.50	1.5	5000	74	P	
88	**Sr**	1	**-0.003**	ug/l	-0.17	299.9	5000	74	P	
95	**Mo**	1	**97.460**	ug/l	4,873.00	1.5	5000	103	P	
109	**Ag**	1	**12.660**	ug/l	633.00	1.6	200	103	P	
111	**Cd**	1	**2.050**	ug/l	102.50	5.2	5000	103	P	
118	**Sn**	1	**101.900**	ug/l	5,095.00	1.8	5000	103	P	
135	**Ba**	1	**82.040**	ug/l	4,102.00	2.1	5000	103	P	
200	**Hg**	1	**1.017**	ug/l	50.85	1.4	50	175	P	
205	**Tl**	1	**85.240**	ug/l	4,262.00	0.5	5000	175	A	
208	**Pb**	1	**20.950**	ug/l	1,047.50	2.0	5000	175	P	
238	**U**	1	**0.002**	ug/l	0.11	86.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	187224	0.38	240400	**77.9**	30	-	125	
45	Sc	1	2344636	1.97	2616000	**89.6**	30	-	125	
74	Ge	1	5254393	1.10	5524000	**95.1**	30	-	125	
103	Rh	1	7354030	1.24	7587000	**96.9**	30	-	125	
165	Ho	1	3294325	0.57	3139000	**104.9**	30	-	125	
175	Lu	1	2704630	1.44	2574000	**105.1**	30	-	125	
209	Bi	1	3347775	1.84	3148000	**106.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\062SMPL.D\062SMPL.D#
Date Acquired: Oct 18 2011 07:26 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-97974/22-A Vial Number: 2503
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**2.078**	ug/l	103.90	2.8	5000	6	P	
23	Na	1	**395.300**	ug/l	19,765.00	4.1	500000	45	A	
24	Mg	1	**390.800**	ug/l	19,540.00	2.0	500000	45	P	
27	Al	1	**75.030**	ug/l	3,751.50	1.9	500000	45	P	
31	P	1	**353.300**	ug/l	17,665.00	3.9	500000	45	P	
39	K	1	**396.000**	ug/l	19,800.00	4.9	500000	45	A	
44	Ca	1	**393.100**	ug/l	19,655.00	2.1	500000	45	P	
47	Ti	1	**95.040**	ug/l	4,752.00	2.7	5000	45	P	
51	V	1	**19.680**	ug/l	984.00	2.9	5000	45	P	
52	Cr	1	**8.010**	ug/l	400.50	2.2	5000	45	P	
57	Fe	1	**429.600**	ug/l	21,480.00	0.9	500000	74	P	
59	Co	1	**20.820**	ug/l	1,041.00	2.2	5000	45	P	
60	Ni	1	**19.640**	ug/l	982.00	1.3	5000	74	P	
63	Cu	1	**10.140**	ug/l	507.00	1.1	5000	74	P	
66	Zn	1	**20.320**	ug/l	1,016.00	1.5	5000	74	P	
78	Se	1	**78.260**	ug/l	3,913.00	1.9	5000	74	P	
88	Sr	1	**-0.004**	ug/l	-0.20	59.0	5000	74	P	
95	Mo	1	**96.810**	ug/l	4,840.50	0.9	5000	103	P	
109	Ag	1	**12.500**	ug/l	625.00	0.5	200	103	P	
111	Cd	1	**2.052**	ug/l	102.60	3.6	5000	103	P	
118	Sn	1	**100.900**	ug/l	5,045.00	1.2	5000	103	P	
135	Ba	1	**81.370**	ug/l	4,068.50	0.7	5000	103	P	
200	Hg	1	**0.996**	ug/l	49.81	1.1	50	175	P	
205	Tl	1	**85.930**	ug/l	4,296.50	2.2	5000	175	A	
208	Pb	1	**20.740**	ug/l	1,037.00	1.4	5000	175	P	
238	U	1	**0.002**	ug/l	0.11	45.0	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	186007	0.97	240400	**77.4**	30	-	125	
45	Sc	1	2395923	2.41	2616000	**91.6**	30	-	125	
74	Ge	1	5275867	0.41	5524000	**95.5**	30	-	125	
103	Rh	1	7389918	0.47	7587000	**97.4**	30	-	125	
165	Ho	1	3281196	0.92	3139000	**104.5**	30	-	125	
175	Lu	1	2703312	0.92	2574000	**105.0**	30	-	125	
209	Bi	1	3330839	0.53	3148000	**105.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\063SMPL.D\063SMPL.D#
Date Acquired: Oct 18 2011 07:31 pm Acq. Method: 00He_ALL.M
Sample Name: LCSSRM 580-97974/23-A Vial Number: 2504
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **20.00** Final Dil Factor: **20.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**46.760**	ug/l	935.20	1.1	5000	6	P	
23	**Na**	1	**366.200**	ug/l	7,324.00	3.1	500000	45	A	
24	**Mg**	1	**1391.000**	ug/l	27,820.00	2.5	500000	45	A	
27	**Al**	1	**3716.000**	ug/l	74,320.00	2.3	500000	45	A	
31	**P**	1	**238.800**	ug/l	4,776.00	0.6	500000	45	P	
39	**K**	1	**1308.000**	ug/l	26,160.00	2.1	500000	45	A	
44	**Ca**	1	**3395.000**	ug/l	67,900.00	1.3	500000	45	P	
47	**Ti**	1	**110.300**	ug/l	2,206.00	1.8	5000	45	P	
51	**V**	1	**57.320**	ug/l	1,146.40	1.7	5000	45	P	
52	**Cr**	1	**48.300**	ug/l	966.00	2.5	5000	45	P	
57	**Fe**	1	**6982.000**	ug/l	139,640.00	1.2	500000	74	A	
59	**Co**	1	**75.050**	ug/l	1,501.00	2.0	5000	45	A	
60	**Ni**	1	**55.610**	ug/l	1,112.20	1.0	5000	74	P	
63	**Cu**	1	**36.790**	ug/l	735.80	1.0	5000	74	P	
66	**Zn**	1	**153.700**	ug/l	3,074.00	1.3	5000	74	P	
78	**Se**	1	**108.400**	ug/l	2,168.00	0.9	5000	74	P	
88	**Sr**	1	**57.740**	ug/l	1,154.80	1.2	5000	74	P	
95	**Mo**	1	**46.430**	ug/l	928.60	0.9	5000	103	P	
109	**Ag**	1	**26.980**	ug/l	539.60	1.1	200	103	P	
111	**Cd**	1	**57.730**	ug/l	1,154.60	0.8	5000	103	P	
118	**Sn**	1	**70.780**	ug/l	1,415.60	1.7	5000	103	P	
135	**Ba**	1	**171.400**	ug/l	3,428.00	1.0	5000	103	P	
200	**Hg**	1	**8.450**	ug/l	169.00	3.4	50	175	P	
205	**Tl**	1	**99.420**	ug/l	1,988.40	0.5	5000	175	A	
208	**Pb**	1	**85.380**	ug/l	1,707.60	2.1	5000	175	A	
238	**U**	1	**0.567**	ug/l	11.34	3.2	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	184800	0.60	240400	**76.9**	30	-	125	
45	Sc	1	2381057	1.71	2616000	**91.0**	30	-	125	
74	Ge	1	5263622	0.78	5524000	**95.3**	30	-	125	
103	Rh	1	7339845	0.39	7587000	**96.7**	30	-	125	
165	Ho	1	3292475	0.99	3139000	**104.9**	30	-	125	
175	Lu	1	2674631	1.63	2574000	**103.9**	30	-	125	
209	Bi	1	3234838	1.23	3148000	**102.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\064SMPL.D\064SMPL.D#
Date Acquired: Oct 18 2011 07:35 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**50.550**	ug/l	50.55	1.6	5000	6	P	
23	Na	1	**4678.000**	ug/l	4,678.00	0.9	500000	45	A	
24	Mg	1	**4613.000**	ug/l	4,613.00	1.0	500000	45	A	
27	Al	1	**467.800**	ug/l	467.80	0.6	500000	45	P	
31	P	1	**4579.000**	ug/l	4,579.00	1.1	500000	45	P	
39	K	1	**4754.000**	ug/l	4,754.00	0.5	500000	45	A	
44	Ca	1	**4866.000**	ug/l	4,866.00	0.9	500000	45	P	
47	Ti	1	**48.630**	ug/l	48.63	1.3	5000	45	P	
51	V	1	**49.080**	ug/l	49.08	1.0	5000	45	P	
52	Cr	1	**49.380**	ug/l	49.38	1.1	5000	45	P	
57	Fe	1	**4856.000**	ug/l	4,856.00	2.6	500000	74	A	
59	Co	1	**50.850**	ug/l	50.85	1.6	5000	45	P	
60	Ni	1	**47.860**	ug/l	47.86	1.1	5000	74	P	
63	Cu	1	**48.330**	ug/l	48.33	1.0	5000	74	P	
66	Zn	1	**50.560**	ug/l	50.56	0.3	5000	74	P	
78	Se	1	**48.120**	ug/l	48.12	0.4	5000	74	P	
88	Sr	1	**48.790**	ug/l	48.79	0.7	5000	74	P	
95	Mo	1	**48.160**	ug/l	48.16	1.0	5000	103	P	
109	Ag	1	**49.980**	ug/l	49.98	1.9	200	103	P	
111	Cd	1	**49.840**	ug/l	49.84	1.3	5000	103	P	
118	Sn	1	**49.260**	ug/l	49.26	1.8	5000	103	P	
135	Ba	1	**50.850**	ug/l	50.85	1.5	5000	103	P	
200	Hg	1	**2.474**	ug/l	2.47	0.7	50	175	P	
205	Tl	1	**53.320**	ug/l	53.32	1.5	5000	175	A	
208	Pb	1	**49.310**	ug/l	49.31	1.8	5000	175	P	
238	U	1	**49.850**	ug/l	49.85	1.5	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	186719	0.99	240400	**77.7**	30	-	125	
45	Sc	1	2389322	0.88	2616000	**91.3**	30	-	125	
74	Ge	1	5286018	0.63	5524000	**95.7**	30	-	125	
103	Rh	1	7292519	1.50	7587000	**96.1**	30	-	125	
165	Ho	1	3272194	0.61	3139000	**104.2**	30	-	125	
175	Lu	1	2667909	1.71	2574000	**103.6**	30	-	125	
209	Bi	1	3208521	1.66	3148000	**101.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\065SMPL.D\065SMPL.D#
Date Acquired: Oct 18 2011 07:40 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.004**	ug/l	0.00	91.5	5000	6	P	
23	**Na**	1	**2.269**	ug/l	2.27	46.7	500000	45	P	
24	**Mg**	1	**0.196**	ug/l	0.20	5.4	500000	45	P	
27	**Al**	1	**0.244**	ug/l	0.24	27.4	500000	45	P	
31	**P**	1	**-3.003**	ug/l	-3.00	60.2	500000	45	P	
39	**K**	1	**-6.888**	ug/l	-6.89	18.6	500000	45	P	
44	**Ca**	1	**-2.796**	ug/l	-2.80	8.1	500000	45	P	
47	**Ti**	1	**0.112**	ug/l	0.11	19.0	5000	45	P	
51	**V**	1	**-0.087**	ug/l	-0.09	17.0	5000	45	P	
52	**Cr**	1	**-0.011**	ug/l	-0.01	133.3	5000	45	P	
57	**Fe**	1	**2.315**	ug/l	2.32	6.5	500000	74	P	
59	**Co**	1	**0.004**	ug/l	0.00	46.7	5000	45	P	
60	**Ni**	1	**-0.001**	ug/l	0.00	13.0	5000	74	P	
63	**Cu**	1	**0.006**	ug/l	0.01	124.1	5000	74	P	
66	**Zn**	1	**-0.041**	ug/l	-0.04	18.7	5000	74	P	
78	**Se**	1	**-0.029**	ug/l	-0.03	294.6	5000	74	P	
88	**Sr**	1	**-0.004**	ug/l	0.00	59.3	5000	74	P	
95	**Mo**	1	**0.123**	ug/l	0.12	19.2	5000	103	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	286.3	200	103	P	
111	**Cd**	1	**0.000**	ug/l	0.00	2768.8	5000	103	P	
118	**Sn**	1	**0.315**	ug/l	0.32	16.7	5000	103	P	
135	**Ba**	1	**0.002**	ug/l	0.00	478.2	5000	103	P	
200	**Hg**	1	**0.043**	ug/l	0.04	11.2	50	175	P	
205	**Tl**	1	**0.434**	ug/l	0.43	14.6	5000	175	P	
208	**Pb**	1	**0.017**	ug/l	0.02	73.2	5000	175	P	
238	**U**	1	**0.014**	ug/l	0.01	18.3	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	188279	0.60	240400	**78.3**	30	-	125	
45	Sc	1	2419528	1.75	2616000	**92.5**	30	-	125	
74	Ge	1	5297793	0.23	5524000	**95.9**	30	-	125	
103	Rh	1	7521210	0.92	7587000	**99.1**	30	-	125	
165	Ho	1	3263603	0.19	3139000	**104.0**	30	-	125	
175	Lu	1	2726739	0.51	2574000	**105.9**	30	-	125	
209	Bi	1	3361854	3.20	3148000	**106.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\066SMPL.D\066SMPL.D#
Date Acquired: Oct 18 2011 07:45 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-18-E SD Vial Number: 3101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.083**	ug/l	4.14	15.3	5000	6	P	
23	**Na**	1	**132.700**	ug/l	6,635.00	4.2	500000	45	P	
24	**Mg**	1	**1995.000**	ug/l	99,750.00	1.3	500000	45	A	
27	**Al**	1	**3599.000**	ug/l	179,950.00	2.8	500000	45	A	
31	**P**	1	**204.200**	ug/l	10,210.00	4.3	500000	45	P	
39	**K**	1	**697.800**	ug/l	34,890.00	1.7	500000	45	A	
44	**Ca**	1	**757.900**	ug/l	37,895.00	2.5	500000	45	P	
47	**Ti**	1	**90.020**	ug/l	4,501.00	2.9	5000	45	P	
51	**V**	1	**22.120**	ug/l	1,106.00	3.1	5000	45	P	
52	**Cr**	1	**3.618**	ug/l	180.90	2.8	5000	45	P	
57	**Fe**	1	**21520.000**	ug/l	1,076,000.00	1.1	500000	74	A	
59	**Co**	1	**13.610**	ug/l	680.50	1.7	5000	45	P	
60	**Ni**	1	**3.596**	ug/l	179.80	1.0	5000	74	P	
63	**Cu**	1	**91.340**	ug/l	4,567.00	1.5	5000	74	A	
66	**Zn**	1	**317.700**	ug/l	15,885.00	0.7	5000	74	P	
78	**Se**	1	**0.135**	ug/l	6.73	36.7	5000	74	P	
88	**Sr**	1	**3.013**	ug/l	150.65	2.4	5000	74	P	
95	**Mo**	1	**0.717**	ug/l	35.84	1.8	5000	103	P	
109	**Ag**	1	**1.440**	ug/l	72.00	2.9	200	103	P	
111	**Cd**	1	**3.439**	ug/l	171.95	1.4	5000	103	P	
118	**Sn**	1	**0.380**	ug/l	18.98	6.8	5000	103	P	
135	**Ba**	1	**17.650**	ug/l	882.50	2.2	5000	103	P	
200	**Hg**	1	**0.361**	ug/l	18.05	0.9	50	175	P	
205	**Tl**	1	**0.333**	ug/l	16.66	8.0	5000	175	P	
208	**Pb**	1	**163.400**	ug/l	8,170.00	1.4	5000	175	A	
238	**U**	1	**0.366**	ug/l	18.28	1.1	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	196736	0.78	240400	**81.8**	30	-	125	
45	Sc	1	2457299	2.19	2616000	**93.9**	30	-	125	
74	Ge	1	5318170	0.68	5524000	**96.3**	30	-	125	
103	Rh	1	7317496	1.29	7587000	**96.4**	30	-	125	
165	Ho	1	3242871	0.48	3139000	**103.3**	30	-	125	
175	Lu	1	2690135	1.75	2574000	**104.5**	30	-	125	
209	Bi	1	3178651	4.45	3148000	**101.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\067SMPL.D\067SMPL.D#
Date Acquired: Oct 18 2011 07:50 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-18-E Vial Number: 3102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.409**	ug/l	4.09	1.0	5000	6	P	
23	Na	1	**715.100**	ug/l	7,151.00	6.7	500000	45	A	
24	Mg	1	**10350.000**	ug/l	103,500.00	0.8	500000	45	A	
27	Al	1	**18420.000**	ug/l	184,200.00	2.1	500000	45	A	
31	P	1	**1092.000**	ug/l	10,920.00	2.4	500000	45	P	
39	K	1	**3510.000**	ug/l	35,100.00	2.1	500000	45	A	
44	Ca	1	**4093.000**	ug/l	40,930.00	1.0	500000	45	P	
47	Ti	1	**474.400**	ug/l	4,744.00	1.1	5000	45	P	
51	V	1	**119.800**	ug/l	1,198.00	2.2	5000	45	A	
52	Cr	1	**19.400**	ug/l	194.00	1.3	5000	45	P	
57	Fe	1	**117500.000**	ug/l	1,175,000.00	1.4	500000	74	A	
59	Co	1	**73.000**	ug/l	730.00	1.5	5000	45	A	
60	Ni	1	**19.620**	ug/l	196.20	0.7	5000	74	P	
63	Cu	1	**469.200**	ug/l	4,692.00	1.4	5000	74	A	
66	Zn	1	**1691.000**	ug/l	16,910.00	0.5	5000	74	A	
78	Se	1	**1.056**	ug/l	10.56	8.5	5000	74	P	
88	Sr	1	**16.940**	ug/l	169.40	1.2	5000	74	P	
95	Mo	1	**3.855**	ug/l	38.55	0.3	5000	103	P	
109	Ag	1	**7.934**	ug/l	79.34	1.6	200	103	P	
111	Cd	1	**19.480**	ug/l	194.80	3.1	5000	103	P	
118	Sn	1	**1.628**	ug/l	16.28	2.6	5000	103	P	
135	Ba	1	**102.400**	ug/l	1,024.00	1.3	5000	103	P	
200	Hg	1	**1.807**	ug/l	18.07	1.7	50	175	P	
205	Tl	1	**0.778**	ug/l	7.78	1.7	5000	175	P	
208	Pb	1	**878.000**	ug/l	8,780.00	0.3	5000	175	A	
238	U	1	**2.045**	ug/l	20.45	1.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	182244	0.14	240400	**75.8**	30	-	125	
45	Sc	1	2397157	0.73	2616000	**91.6**	30	-	125	
74	Ge	1	5021386	1.11	5524000	**90.9**	30	-	125	
103	Rh	1	6834097	1.04	7587000	**90.1**	30	-	125	
165	Ho	1	3159417	2.02	3139000	**100.7**	30	-	125	
175	Lu	1	2564586	0.63	2574000	**99.6**	30	-	125	
209	Bi	1	3285754	1.41	3148000	**104.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\068SMPL.D\068SMPL.D#
Date Acquired: Oct 18 2011 07:55 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-18-F DU Vial Number: 3103
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.392**	ug/l	3.92	9.7	5000	6	P	
23	**Na**	1	**697.000**	ug/l	6,970.00	3.0	500000	45	A	
24	**Mg**	1	**10240.000**	ug/l	102,400.00	1.9	500000	45	A	
27	**Al**	1	**18190.000**	ug/l	181,900.00	0.8	500000	45	A	
31	**P**	1	**1067.000**	ug/l	10,670.00	2.3	500000	45	P	
39	**K**	1	**3449.000**	ug/l	34,490.00	1.6	500000	45	A	
44	**Ca**	1	**4008.000**	ug/l	40,080.00	2.0	500000	45	P	
47	**Ti**	1	**468.300**	ug/l	4,683.00	2.1	5000	45	P	
51	**V**	1	**118.100**	ug/l	1,181.00	2.4	5000	45	A	
52	**Cr**	1	**18.940**	ug/l	189.40	3.2	5000	45	P	
57	**Fe**	1	**114500.000**	ug/l	1,145,000.00	0.6	500000	74	A	
59	**Co**	1	**72.620**	ug/l	726.20	2.3	5000	45	A	
60	**Ni**	1	**19.230**	ug/l	192.30	1.1	5000	74	P	
63	**Cu**	1	**467.300**	ug/l	4,673.00	0.7	5000	74	A	
66	**Zn**	1	**1660.000**	ug/l	16,600.00	0.4	5000	74	A	
78	**Se**	1	**1.006**	ug/l	10.06	2.5	5000	74	P	
88	**Sr**	1	**16.610**	ug/l	166.10	0.2	5000	74	P	
95	**Mo**	1	**3.702**	ug/l	37.02	2.5	5000	103	P	
109	**Ag**	1	**7.949**	ug/l	79.49	1.2	200	103	P	
111	**Cd**	1	**19.160**	ug/l	191.60	0.8	5000	103	P	
118	**Sn**	1	**1.571**	ug/l	15.71	3.2	5000	103	P	
135	**Ba**	1	**99.200**	ug/l	992.00	1.9	5000	103	P	
200	**Hg**	1	**1.776**	ug/l	17.76	2.3	50	175	P	
205	**Tl**	1	**0.754**	ug/l	7.54	2.4	5000	175	P	
208	**Pb**	1	**868.700**	ug/l	8,687.00	1.0	5000	175	A	
238	**U**	1	**2.016**	ug/l	20.16	2.5	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	180244	1.38	240400	**75.0**	30	-	125	
45	Sc	1	2409365	1.80	2616000	**92.1**	30	-	125	
74	Ge	1	5012525	0.09	5524000	**90.7**	30	-	125	
103	Rh	1	6829166	1.33	7587000	**90.0**	30	-	125	
165	Ho	1	3115452	1.94	3139000	**99.2**	30	-	125	
175	Lu	1	2560959	1.54	2574000	**99.5**	30	-	125	
209	Bi	1	3270729	1.06	3148000	**103.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\069SMPL.D\069SMPL.D#
Date Acquired: Oct 18 2011 08:00 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-18-G MS Vial Number: 3104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**1.985**	ug/l	99.25	4.5	5000	6	P	
23	**Na**	1	**558.000**	ug/l	27,900.00	1.2	500000	45	A	
24	**Mg**	1	**2388.000**	ug/l	119,400.00	2.1	500000	45	A	
27	**Al**	1	**4211.000**	ug/l	210,550.00	4.3	500000	45	A	
31	**P**	1	**539.800**	ug/l	26,990.00	1.7	500000	45	P	
39	**K**	1	**1012.000**	ug/l	50,600.00	2.9	500000	45	A	
44	**Ca**	1	**1294.000**	ug/l	64,700.00	0.9	500000	45	P	
47	**Ti**	1	**190.200**	ug/l	9,510.00	0.3	5000	45	P	
51	**V**	1	**40.840**	ug/l	2,042.00	1.0	5000	45	P	
52	**Cr**	1	**11.160**	ug/l	558.00	1.5	5000	45	P	
57	**Fe**	1	**22100.000**	ug/l	1,105,000.00	0.9	500000	74	A	
59	**Co**	1	**33.920**	ug/l	1,696.00	1.4	5000	45	P	
60	**Ni**	1	**22.610**	ug/l	1,130.50	1.6	5000	74	P	
63	**Cu**	1	**104.600**	ug/l	5,230.00	1.1	5000	74	A	
66	**Zn**	1	**362.300**	ug/l	18,115.00	1.1	5000	74	P	
78	**Se**	1	**73.470**	ug/l	3,673.50	1.7	5000	74	P	
88	**Sr**	1	**4.004**	ug/l	200.20	0.8	5000	74	P	
95	**Mo**	1	**91.840**	ug/l	4,592.00	0.9	5000	103	P	
109	**Ag**	1	**12.870**	ug/l	643.50	1.4	200	103	P	
111	**Cd**	1	**5.709**	ug/l	285.45	2.9	5000	103	P	
118	**Sn**	1	**91.510**	ug/l	4,575.50	1.6	5000	103	P	
135	**Ba**	1	**98.940**	ug/l	4,947.00	1.2	5000	103	P	
200	**Hg**	1	**1.278**	ug/l	63.90	3.0	50	175	P	
205	**Tl**	1	**84.480**	ug/l	4,224.00	0.5	5000	175	A	
208	**Pb**	1	**183.500**	ug/l	9,175.00	1.3	5000	175	A	
238	**U**	1	**0.386**	ug/l	19.32	4.3	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	192574	1.54	240400	**80.1**	30	-	125	
45	Sc	1	2410969	1.51	2616000	**92.2**	30	-	125	
74	Ge	1	5305603	1.15	5524000	**96.0**	30	-	125	
103	Rh	1	7287729	0.55	7587000	**96.1**	30	-	125	
165	Ho	1	3277844	1.83	3139000	**104.4**	30	-	125	
175	Lu	1	2662601	0.82	2574000	**103.4**	30	-	125	
209	Bi	1	3179949	3.05	3148000	**101.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\070SMPL.D\070SMPL.D#
Date Acquired: Oct 18 2011 08:04 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-18-H MSD Vial Number: 3105
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.372**	ug/l	118.60	6.6	5000	6	P	
23	**Na**	1	**635.500**	ug/l	31,775.00	3.3	500000	45	A	
24	**Mg**	1	**2619.000**	ug/l	130,950.00	0.8	500000	45	A	
27	**Al**	1	**4419.000**	ug/l	220,950.00	0.6	500000	45	A	
31	**P**	1	**644.600**	ug/l	32,230.00	1.4	500000	45	P	
39	**K**	1	**1158.000**	ug/l	57,900.00	5.4	500000	45	A	
44	**Ca**	1	**1435.000**	ug/l	71,750.00	0.4	500000	45	P	
47	**Ti**	1	**208.000**	ug/l	10,400.00	0.4	5000	45	P	
51	**V**	1	**48.060**	ug/l	2,403.00	0.7	5000	45	P	
52	**Cr**	1	**12.830**	ug/l	641.50	0.3	5000	45	P	
57	**Fe**	1	**26860.000**	ug/l	1,343,000.00	0.6	500000	74	A	
59	**Co**	1	**39.520**	ug/l	1,976.00	0.6	5000	45	P	
60	**Ni**	1	**25.720**	ug/l	1,286.00	1.3	5000	74	P	
63	**Cu**	1	**117.400**	ug/l	5,870.00	1.0	5000	74	A	
66	**Zn**	1	**397.500**	ug/l	19,875.00	0.6	5000	74	A	
78	**Se**	1	**86.810**	ug/l	4,340.50	1.2	5000	74	P	
88	**Sr**	1	**4.328**	ug/l	216.40	1.0	5000	74	P	
95	**Mo**	1	**108.400**	ug/l	5,420.00	2.1	5000	103	P	
109	**Ag**	1	**15.580**	ug/l	779.00	2.3	200	103	P	
111	**Cd**	1	**6.302**	ug/l	315.10	0.8	5000	103	P	
118	**Sn**	1	**108.700**	ug/l	5,435.00	2.0	5000	103	P	
135	**Ba**	1	**113.500**	ug/l	5,675.00	2.1	5000	103	P	
200	**Hg**	1	**1.465**	ug/l	73.25	1.3	50	175	P	
205	**Tl**	1	**96.670**	ug/l	4,833.50	0.6	5000	175	A	
208	**Pb**	1	**198.200**	ug/l	9,910.00	1.3	5000	175	A	
238	**U**	1	**0.401**	ug/l	20.04	0.5	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	194841	0.07	240400	**81.0**	30	-	125	
45	Sc	1	2413906	1.27	2616000	**92.3**	30	-	125	
74	Ge	1	5321691	1.28	5524000	**96.3**	30	-	125	
103	Rh	1	7278770	1.82	7587000	**95.9**	30	-	125	
165	Ho	1	3230267	0.63	3139000	**102.9**	30	-	125	
175	Lu	1	2687608	0.85	2574000	**104.4**	30	-	125	
209	Bi	1	3198111	3.18	3148000	**101.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\071SMPL.D\071SMPL.D#
Date Acquired: Oct 18 2011 08:09 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-18-E PDS Vial Number: 3106
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **50.00** Final Dil Factor: **50.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**2.142**	ug/l	107.10	3.6	5000	6	P	
23	**Na**	1	**530.700**	ug/l	26,535.00	1.9	500000	45	A	
24	**Mg**	1	**2259.000**	ug/l	112,950.00	1.4	500000	45	A	
27	**Al**	1	**3462.000**	ug/l	173,100.00	2.5	500000	45	A	
31	**P**	1	**567.000**	ug/l	28,350.00	3.2	500000	45	P	
39	**K**	1	**1117.000**	ug/l	55,850.00	5.7	500000	45	A	
44	**Ca**	1	**1122.000**	ug/l	56,100.00	2.2	500000	45	P	
47	**Ti**	1	**183.700**	ug/l	9,185.00	2.9	5000	45	P	
51	**V**	1	**41.060**	ug/l	2,053.00	2.3	5000	45	P	
52	**Cr**	1	**11.610**	ug/l	580.50	2.0	5000	45	P	
57	**Fe**	1	**20590.000**	ug/l	1,029,500.00	2.3	500000	74	A	
59	**Co**	1	**33.650**	ug/l	1,682.50	2.3	5000	45	P	
60	**Ni**	1	**23.480**	ug/l	1,174.00	2.3	5000	74	P	
63	**Cu**	1	**94.460**	ug/l	4,723.00	2.1	5000	74	A	
66	**Zn**	1	**315.200**	ug/l	15,760.00	0.9	5000	74	P	
78	**Se**	1	**81.200**	ug/l	4,060.00	1.4	5000	74	P	
88	**Sr**	1	**2.818**	ug/l	140.90	2.0	5000	74	P	
95	**Mo**	1	**100.600**	ug/l	5,030.00	1.9	5000	103	P	
109	**Ag**	1	**14.010**	ug/l	700.50	1.9	200	103	P	
111	**Cd**	1	**5.199**	ug/l	259.95	1.9	5000	103	P	
118	**Sn**	1	**98.910**	ug/l	4,945.50	2.2	5000	103	P	
135	**Ba**	1	**101.100**	ug/l	5,055.00	1.2	5000	103	P	
200	**Hg**	1	**1.301**	ug/l	65.05	0.5	50	175	P	
205	**Tl**	1	**88.760**	ug/l	4,438.00	2.0	5000	175	A	
208	**Pb**	1	**172.100**	ug/l	8,605.00	1.8	5000	175	A	
238	**U**	1	**0.331**	ug/l	16.53	1.4	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	194896	1.32	240400	**81.1**	30	-	125	
45	Sc	1	2436334	2.43	2616000	**93.1**	30	-	125	
74	Ge	1	5304646	1.56	5524000	**96.0**	30	-	125	
103	Rh	1	7350138	1.79	7587000	**96.9**	30	-	125	
165	Ho	1	3217594	1.38	3139000	**102.5**	30	-	125	
175	Lu	1	2696575	1.49	2574000	**104.8**	30	-	125	
209	Bi	1	3188586	4.22	3148000	**101.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\072SMPL.D\072SMPL.D#
Date Acquired: Oct 18 2011 08:14 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-19-B Vial Number: 3107
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.569**	ug/l	5.69	8.9	5000	6	P	
23	Na	1	**619.100**	ug/l	6,191.00	1.1	500000	45	A	
24	Mg	1	**11940.000**	ug/l	119,400.00	1.8	500000	45	A	
27	Al	1	**20680.000**	ug/l	206,800.00	1.3	500000	45	A	
31	P	1	**1125.000**	ug/l	11,250.00	0.9	500000	45	P	
39	K	1	**3126.000**	ug/l	31,260.00	2.2	500000	45	A	
44	Ca	1	**4292.000**	ug/l	42,920.00	1.5	500000	45	P	
47	Ti	1	**487.000**	ug/l	4,870.00	1.0	5000	45	P	
51	V	1	**131.100**	ug/l	1,311.00	2.5	5000	45	A	
52	Cr	1	**21.270**	ug/l	212.70	1.6	5000	45	P	
57	Fe	1	**125700.000**	ug/l	1,257,000.00	0.6	500000	74	A	
59	Co	1	**63.590**	ug/l	635.90	1.3	5000	45	A	
60	Ni	1	**23.680**	ug/l	236.80	2.4	5000	74	P	
63	Cu	1	**605.600**	ug/l	6,056.00	0.6	5000	74	A	
66	Zn	1	**2117.000**	ug/l	21,170.00	0.2	5000	74	A	
78	Se	1	**1.598**	ug/l	15.98	6.0	5000	74	P	
88	Sr	1	**16.510**	ug/l	165.10	1.7	5000	74	P	
95	Mo	1	**5.687**	ug/l	56.87	1.0	5000	103	P	
109	Ag	1	**8.636**	ug/l	86.36	0.9	200	103	P	
111	Cd	1	**36.300**	ug/l	363.00	1.2	5000	103	P	
118	Sn	1	**2.134**	ug/l	21.34	7.9	5000	103	P	
135	Ba	1	**104.400**	ug/l	1,044.00	0.7	5000	103	P	
200	Hg	1	**1.941**	ug/l	19.41	2.5	50	175	P	
205	Tl	1	**0.728**	ug/l	7.28	3.1	5000	175	P	
208	Pb	1	**836.600**	ug/l	8,366.00	1.8	5000	175	A	
238	U	1	**3.163**	ug/l	31.63	2.9	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	183749	0.63	240400	**76.4**	30	-	125	
45	Sc	1	2376738	1.31	2616000	**90.9**	30	-	125	
74	Ge	1	4948358	0.82	5524000	**89.6**	30	-	125	
103	Rh	1	6726383	0.51	7587000	**88.7**	30	-	125	
165	Ho	1	3119650	1.05	3139000	**99.4**	30	-	125	
175	Lu	1	2540326	1.87	2574000	**98.7**	30	-	125	
209	Bi	1	3190837	1.45	3148000	**101.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\073SMPL.D\073SMPL.D#
Date Acquired: Oct 18 2011 08:19 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-20-B Vial Number: 3108
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.319**	ug/l	3.19	10.3	5000	6	P	
23	Na	1	**864.900**	ug/l	8,649.00	1.1	500000	45	A	
24	Mg	1	**11000.000**	ug/l	110,000.00	0.8	500000	45	A	
27	Al	1	**29860.000**	ug/l	298,600.00	0.6	500000	45	A	
31	P	1	**810.100**	ug/l	8,101.00	0.9	500000	45	P	
39	K	1	**1777.000**	ug/l	17,770.00	0.4	500000	45	A	
44	Ca	1	**6638.000**	ug/l	66,380.00	0.6	500000	45	P	
47	Ti	1	**655.400**	ug/l	6,554.00	1.3	5000	45	P	
51	V	1	**79.340**	ug/l	793.40	1.2	5000	45	A	
52	Cr	1	**11.280**	ug/l	112.80	1.4	5000	45	P	
57	Fe	1	**42950.000**	ug/l	429,500.00	2.0	500000	74	A	
59	Co	1	**27.980**	ug/l	279.80	1.4	5000	45	P	
60	Ni	1	**14.740**	ug/l	147.40	1.8	5000	74	P	
63	Cu	1	**357.300**	ug/l	3,573.00	0.9	5000	74	A	
66	Zn	1	**1385.000**	ug/l	13,850.00	1.8	5000	74	A	
78	Se	1	**1.018**	ug/l	10.18	11.6	5000	74	P	
88	Sr	1	**43.220**	ug/l	432.20	2.8	5000	74	P	
95	Mo	1	**2.732**	ug/l	27.32	2.0	5000	103	P	
109	Ag	1	**1.382**	ug/l	13.82	1.0	200	103	P	
111	Cd	1	**4.899**	ug/l	48.99	2.3	5000	103	P	
118	Sn	1	**0.645**	ug/l	6.45	14.2	5000	103	P	
135	Ba	1	**88.730**	ug/l	887.30	1.1	5000	103	P	
200	Hg	1	**0.282**	ug/l	2.82	5.0	50	175	P	
205	Tl	1	**0.241**	ug/l	2.41	10.6	5000	175	P	
208	Pb	1	**138.200**	ug/l	1,382.00	0.4	5000	175	A	
238	U	1	**1.355**	ug/l	13.55	2.1	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	187142	0.92	240400	**77.8**	30	-	125	
45	Sc	1	2408097	1.26	2616000	**92.1**	30	-	125	
74	Ge	1	5166535	1.96	5524000	**93.5**	30	-	125	
103	Rh	1	7038873	0.39	7587000	**92.8**	30	-	125	
165	Ho	1	3179861	0.83	3139000	**101.3**	30	-	125	
175	Lu	1	2619668	0.52	2574000	**101.8**	30	-	125	
209	Bi	1	3136778	1.44	3148000	**99.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\074SMPL.D\074SMPL.D#
Date Acquired: Oct 18 2011 08:23 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-21-B Vial Number: 3109
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.740**	ug/l	7.40	6.9	5000	6	P	
23	Na	1	**112.700**	ug/l	1,127.00	8.5	500000	45	M	
24	Mg	1	**7174.000**	ug/l	71,740.00	2.3	500000	45	A	
27	Al	1	**16640.000**	ug/l	166,400.00	1.6	500000	45	A	
31	P	1	**1269.000**	ug/l	12,690.00	2.9	500000	45	P	
39	K	1	**2701.000**	ug/l	27,010.00	1.5	500000	45	A	
44	Ca	1	**2896.000**	ug/l	28,960.00	1.0	500000	45	P	
47	Ti	1	**523.400**	ug/l	5,234.00	0.3	5000	45	P	
51	V	1	**61.050**	ug/l	610.50	0.7	5000	45	P	
52	Cr	1	**14.450**	ug/l	144.50	0.3	5000	45	P	
57	Fe	1	**76480.000**	ug/l	764,800.00	1.3	500000	74	A	
59	Co	1	**48.280**	ug/l	482.80	1.4	5000	45	P	
60	Ni	1	**28.940**	ug/l	289.40	1.9	5000	74	P	
63	Cu	1	**192.500**	ug/l	1,925.00	1.4	5000	74	A	
66	Zn	1	**1430.000**	ug/l	14,300.00	1.6	5000	74	A	
78	Se	1	**2.276**	ug/l	22.76	2.0	5000	74	P	
88	Sr	1	**8.797**	ug/l	87.97	0.6	5000	74	P	
95	Mo	1	**1.270**	ug/l	12.70	3.3	5000	103	P	
109	Ag	1	**20.890**	ug/l	208.90	1.3	200	103	P	
111	Cd	1	**8.900**	ug/l	89.00	1.3	5000	103	P	
118	Sn	1	**1.319**	ug/l	13.19	4.0	5000	103	P	
135	Ba	1	**73.510**	ug/l	735.10	0.2	5000	103	P	
200	Hg	1	**0.515**	ug/l	5.15	2.6	50	175	P	
205	Tl	1	**0.605**	ug/l	6.05	3.6	5000	175	P	
208	Pb	1	**2174.000**	ug/l	21,740.00	0.9	5000	175	A	
238	U	1	**0.288**	ug/l	2.88	7.7	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	186248	1.18	240400	**77.5**	30	-	125	
45	Sc	1	2378143	0.93	2616000	**90.9**	30	-	125	
74	Ge	1	5112742	1.13	5524000	**92.6**	30	-	125	
103	Rh	1	6980792	0.65	7587000	**92.0**	30	-	125	
165	Ho	1	3158571	0.79	3139000	**100.6**	30	-	125	
175	Lu	1	2608183	0.89	2574000	**101.3**	30	-	125	
209	Bi	1	3110372	1.03	3148000	**98.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\075SMPL.D\075SMPL.D#
Date Acquired: Oct 18 2011 08:28 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-22-B Vial Number: 3110
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element	T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9 Be	1	**0.747**	ug/l	7.47	0.8	5000	6	P	
23 Na	1	**154.400**	ug/l	1,544.00	18.8	500000	45	P	
24 Mg	1	**8033.000**	ug/l	80,330.00	1.5	500000	45	A	
27 Al	1	**18360.000**	ug/l	183,600.00	1.6	500000	45	A	
31 P	1	**1343.000**	ug/l	13,430.00	2.3	500000	45	P	
39 K	1	**2978.000**	ug/l	29,780.00	1.7	500000	45	A	
44 Ca	1	**3668.000**	ug/l	36,680.00	1.2	500000	45	P	
47 Ti	1	**661.100**	ug/l	6,611.00	1.6	5000	45	P	
51 V	1	**64.460**	ug/l	644.60	2.1	5000	45	P	
52 Cr	1	**14.670**	ug/l	146.70	1.7	5000	45	P	
57 Fe	1	**78270.000**	ug/l	782,700.00	1.3	500000	74	A	
59 Co	1	**49.390**	ug/l	493.90	1.8	5000	45	P	
60 Ni	1	**29.970**	ug/l	299.70	0.5	5000	74	P	
63 Cu	1	**240.800**	ug/l	2,408.00	1.6	5000	74	A	
66 Zn	1	**1665.000**	ug/l	16,650.00	1.4	5000	74	A	
78 Se	1	**2.441**	ug/l	24.41	3.2	5000	74	P	
88 Sr	1	**9.329**	ug/l	93.29	0.9	5000	74	P	
95 Mo	1	**1.259**	ug/l	12.59	2.9	5000	103	P	
109 Ag	1	**12.640**	ug/l	126.40	0.1	200	103	P	
111 Cd	1	**9.487**	ug/l	94.87	2.4	5000	103	P	
118 Sn	1	**1.073**	ug/l	10.73	5.8	5000	103	P	
135 Ba	1	**76.310**	ug/l	763.10	0.8	5000	103	P	
200 Hg	1	**0.534**	ug/l	5.34	1.0	50	175	P	
205 Tl	1	**0.612**	ug/l	6.12	0.6	5000	175	P	
208 Pb	1	**2507.000**	ug/l	25,070.00	1.0	5000	175	A	
238 U	1	**0.298**	ug/l	2.98	3.4	5000	175	P	

ISTD Elements

IS Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)	Flag
6 Li	1	190159	0.64	240400	**79.1**	30 - 125	
45 Sc	1	2403673	1.22	2616000	**91.9**	30 - 125	
74 Ge	1	5057466	0.65	5524000	**91.6**	30 - 125	
103 Rh	1	6954973	0.70	7587000	**91.7**	30 - 125	
165 Ho	1	3152153	0.91	3139000	**100.4**	30 - 125	
175 Lu	1	2568875	1.03	2574000	**99.8**	30 - 125	
209 Bi	1	3102653	2.72	3148000	**98.6**	30 - 125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\076SMPL.D\076SMPL.D#
Date Acquired: Oct 18 2011 08:33 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**50.090**	ug/l	50.09	0.7	5000	6	P	
23	Na	1	**4653.000**	ug/l	4,653.00	0.9	500000	45	A	
24	Mg	1	**4644.000**	ug/l	4,644.00	0.9	500000	45	A	
27	Al	1	**463.600**	ug/l	463.60	0.6	500000	45	P	
31	P	1	**4608.000**	ug/l	4,608.00	0.4	500000	45	P	
39	K	1	**4799.000**	ug/l	4,799.00	0.8	500000	45	A	
44	Ca	1	**4820.000**	ug/l	4,820.00	1.0	500000	45	P	
47	Ti	1	**48.620**	ug/l	48.62	0.8	5000	45	P	
51	V	1	**48.210**	ug/l	48.21	0.9	5000	45	P	
52	Cr	1	**48.660**	ug/l	48.66	0.5	5000	45	P	
57	Fe	1	**4888.000**	ug/l	4,888.00	1.3	500000	74	A	
59	Co	1	**49.610**	ug/l	49.61	0.0	5000	45	P	
60	Ni	1	**47.470**	ug/l	47.47	0.4	5000	74	P	
63	Cu	1	**48.070**	ug/l	48.07	0.8	5000	74	P	
66	Zn	1	**50.340**	ug/l	50.34	1.3	5000	74	P	
78	Se	1	**47.930**	ug/l	47.93	1.6	5000	74	P	
88	Sr	1	**48.160**	ug/l	48.16	0.7	5000	74	P	
95	Mo	1	**47.730**	ug/l	47.73	0.8	5000	103	P	
109	Ag	1	**49.890**	ug/l	49.89	1.5	200	103	P	
111	Cd	1	**49.450**	ug/l	49.45	1.9	5000	103	P	
118	Sn	1	**49.100**	ug/l	49.10	1.7	5000	103	P	
135	Ba	1	**50.690**	ug/l	50.69	1.7	5000	103	P	
200	Hg	1	**2.420**	ug/l	2.42	2.2	50	175	P	
205	Tl	1	**53.070**	ug/l	53.07	2.2	5000	175	A	
208	Pb	1	**48.830**	ug/l	48.83	1.4	5000	175	P	
238	U	1	**49.740**	ug/l	49.74	1.9	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	194215	0.94	240400	**80.8**	30	-	125	
45	Sc	1	2449532	0.25	2616000	**93.6**	30	-	125	
74	Ge	1	5324976	0.45	5524000	**96.4**	30	-	125	
103	Rh	1	7246610	0.60	7587000	**95.5**	30	-	125	
165	Ho	1	3213169	0.67	3139000	**102.4**	30	-	125	
175	Lu	1	2658512	1.50	2574000	**103.3**	30	-	125	
209	Bi	1	3154279	1.00	3148000	**100.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\077SMPL.D\077SMPL.D#
Date Acquired: Oct 18 2011 08:38 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.006**	ug/l	0.01	32.7	5000	6	P	
23	Na	1	**2.059**	ug/l	2.06	74.8	500000	45	P	
24	Mg	1	**0.271**	ug/l	0.27	17.4	500000	45	P	
27	Al	1	**1.350**	ug/l	1.35	88.1	500000	45	P	
31	P	1	**-1.656**	ug/l	-1.66	94.4	500000	45	P	
39	K	1	**-5.478**	ug/l	-5.48	38.9	500000	45	P	
44	Ca	1	**-2.915**	ug/l	-2.92	24.1	500000	45	P	
47	Ti	1	**0.187**	ug/l	0.19	23.0	5000	45	P	
51	V	1	**-0.082**	ug/l	-0.08	20.2	5000	45	P	
52	Cr	1	**-0.004**	ug/l	0.00	236.5	5000	45	P	
57	Fe	1	**4.230**	ug/l	4.23	12.4	500000	74	P	
59	Co	1	**0.001**	ug/l	0.00	94.0	5000	45	P	
60	Ni	1	**0.000**	ug/l	0.00	4475.5	5000	74	P	
63	Cu	1	**0.010**	ug/l	0.01	3.1	5000	74	P	
66	Zn	1	**-0.037**	ug/l	-0.04	49.8	5000	74	P	
78	Se	1	**-0.060**	ug/l	-0.06	96.7	5000	74	P	
88	Sr	1	**0.000**	ug/l	0.00	1049.9	5000	74	P	
95	Mo	1	**0.085**	ug/l	0.08	10.4	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	7286.7	200	103	P	
111	Cd	1	**-0.002**	ug/l	0.00	85.9	5000	103	P	
118	Sn	1	**0.260**	ug/l	0.26	18.7	5000	103	P	
135	Ba	1	**0.012**	ug/l	0.01	65.6	5000	103	P	
200	Hg	1	**0.026**	ug/l	0.03	6.7	50	175	P	
205	Tl	1	**0.209**	ug/l	0.21	10.1	5000	175	P	
208	Pb	1	**0.049**	ug/l	0.05	8.3	5000	175	P	
238	U	1	**0.013**	ug/l	0.01	17.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	190560	0.72	240400	**79.3**	30	-	125	
45	Sc	1	2411791	1.51	2616000	**92.2**	30	-	125	
74	Ge	1	5282421	0.61	5524000	**95.6**	30	-	125	
103	Rh	1	7433456	2.07	7587000	**98.0**	30	-	125	
165	Ho	1	3251484	1.28	3139000	**103.6**	30	-	125	
175	Lu	1	2672191	1.41	2574000	**103.8**	30	-	125	
209	Bi	1	3339473	2.50	3148000	**106.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\078SMPL.D\078SMPL.D#
Date Acquired: Oct 18 2011 08:43 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29110-A-23-B Vial Number: 3201
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **10.00** Final Dil Factor: **10.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.365**	ug/l	3.65	6.4	5000	6	P	
23	**Na**	1	**1020.000**	ug/l	10,200.00	2.9	500000	45	A	
24	**Mg**	1	**11590.000**	ug/l	115,900.00	1.5	500000	45	A	
27	**Al**	1	**34510.000**	ug/l	345,100.00	2.1	500000	45	A	
31	**P**	1	**895.500**	ug/l	8,955.00	1.5	500000	45	P	
39	**K**	1	**1867.000**	ug/l	18,670.00	1.3	500000	45	A	
44	**Ca**	1	**7747.000**	ug/l	77,470.00	1.5	500000	45	P	
47	**Ti**	1	**729.700**	ug/l	7,297.00	2.5	5000	45	P	
51	**V**	1	**90.320**	ug/l	903.20	3.9	5000	45	A	
52	**Cr**	1	**12.940**	ug/l	129.40	2.9	5000	45	P	
57	**Fe**	1	**39980.000**	ug/l	399,800.00	0.7	500000	74	A	
59	**Co**	1	**31.350**	ug/l	313.50	2.8	5000	45	P	
60	**Ni**	1	**16.070**	ug/l	160.70	1.6	5000	74	P	
63	**Cu**	1	**391.300**	ug/l	3,913.00	0.7	5000	74	A	
66	**Zn**	1	**1393.000**	ug/l	13,930.00	0.0	5000	74	A	
78	**Se**	1	**1.188**	ug/l	11.88	4.8	5000	74	P	
88	**Sr**	1	**47.610**	ug/l	476.10	0.7	5000	74	P	
95	**Mo**	1	**2.511**	ug/l	25.11	2.6	5000	103	P	
109	**Ag**	1	**1.472**	ug/l	14.72	0.2	200	103	P	
111	**Cd**	1	**5.198**	ug/l	51.98	2.4	5000	103	P	
118	**Sn**	1	**0.450**	ug/l	4.50	9.8	5000	103	P	
135	**Ba**	1	**85.230**	ug/l	852.30	1.8	5000	103	P	
200	**Hg**	1	**0.310**	ug/l	3.10	7.0	50	175	P	
205	**Tl**	1	**0.246**	ug/l	2.46	5.3	5000	175	P	
208	**Pb**	1	**145.600**	ug/l	1,456.00	2.2	5000	175	A	
238	**U**	1	**1.503**	ug/l	15.03	1.9	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	184454	0.33	240400	**76.7**	30	-	125	
45	Sc	1	2397465	1.75	2616000	**91.6**	30	-	125	
74	Ge	1	5144690	0.55	5524000	**93.1**	30	-	125	
103	Rh	1	7062773	1.54	7587000	**93.1**	30	-	125	
165	Ho	1	3194068	1.94	3139000	**101.8**	30	-	125	
175	Lu	1	2606583	1.76	2574000	**101.3**	30	-	125	
209	Bi	1	3108108	0.97	3148000	**98.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\079SMPL.D\079SMPL.D#
Date Acquired: Oct 18 2011 08:48 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.710**	ug/l	49.71	0.6	5000	6	P	
23	**Na**	1	**4664.000**	ug/l	4,664.00	1.9	500000	45	A	
24	**Mg**	1	**4682.000**	ug/l	4,682.00	2.1	500000	45	A	
27	**Al**	1	**466.600**	ug/l	466.60	2.8	500000	45	P	
31	**P**	1	**4578.000**	ug/l	4,578.00	3.0	500000	45	P	
39	**K**	1	**4795.000**	ug/l	4,795.00	2.9	500000	45	A	
44	**Ca**	1	**4858.000**	ug/l	4,858.00	3.1	500000	45	P	
47	**Ti**	1	**48.750**	ug/l	48.75	3.6	5000	45	P	
51	**V**	1	**48.770**	ug/l	48.77	2.5	5000	45	P	
52	**Cr**	1	**49.270**	ug/l	49.27	3.5	5000	45	P	
57	**Fe**	1	**4857.000**	ug/l	4,857.00	0.7	500000	74	A	
59	**Co**	1	**49.930**	ug/l	49.93	3.0	5000	45	P	
60	**Ni**	1	**47.790**	ug/l	47.79	1.0	5000	74	P	
63	**Cu**	1	**48.040**	ug/l	48.04	1.0	5000	74	P	
66	**Zn**	1	**50.210**	ug/l	50.21	1.1	5000	74	P	
78	**Se**	1	**48.090**	ug/l	48.09	1.9	5000	74	P	
88	**Sr**	1	**49.030**	ug/l	49.03	0.5	5000	74	P	
95	**Mo**	1	**47.950**	ug/l	47.95	1.7	5000	103	P	
109	**Ag**	1	**50.150**	ug/l	50.15	1.2	200	103	P	
111	**Cd**	1	**49.670**	ug/l	49.67	1.6	5000	103	P	
118	**Sn**	1	**49.370**	ug/l	49.37	1.8	5000	103	P	
135	**Ba**	1	**50.300**	ug/l	50.30	1.3	5000	103	P	
200	**Hg**	1	**2.408**	ug/l	2.41	4.1	50	175	P	
205	**Tl**	1	**53.350**	ug/l	53.35	1.0	5000	175	A	
208	**Pb**	1	**49.240**	ug/l	49.24	2.6	5000	175	P	
238	**U**	1	**49.970**	ug/l	49.97	2.4	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	192652	0.70	240400	**80.1**	30	-	125	
45	Sc	1	2417478	3.28	2616000	**92.4**	30	-	125	
74	Ge	1	5261229	1.29	5524000	**95.2**	30	-	125	
103	Rh	1	7242891	1.78	7587000	**95.5**	30	-	125	
165	Ho	1	3227793	0.65	3139000	**102.8**	30	-	125	
175	Lu	1	2663934	2.22	2574000	**103.5**	30	-	125	
209	Bi	1	3218296	0.73	3148000	**102.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\080SMPL.D\080SMPL.D#
Date Acquired: Oct 18 2011 08:52 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.002**	ug/l	0.00	100.1	5000	6	P	
23	**Na**	1	**2.281**	ug/l	2.28	78.0	500000	45	P	
24	**Mg**	1	**0.292**	ug/l	0.29	19.6	500000	45	P	
27	**Al**	1	**0.486**	ug/l	0.49	49.9	500000	45	P	
31	**P**	1	**-1.138**	ug/l	-1.14	112.3	500000	45	P	
39	**K**	1	**-5.411**	ug/l	-5.41	41.1	500000	45	P	
44	**Ca**	1	**-3.252**	ug/l	-3.25	39.2	500000	45	P	
47	**Ti**	1	**0.120**	ug/l	0.12	21.7	5000	45	P	
51	**V**	1	**-0.056**	ug/l	-0.06	2.6	5000	45	P	
52	**Cr**	1	**-0.001**	ug/l	0.00	584.9	5000	45	P	
57	**Fe**	1	**3.002**	ug/l	3.00	18.3	500000	74	P	
59	**Co**	1	**0.001**	ug/l	0.00	257.7	5000	45	P	
60	**Ni**	1	**-0.004**	ug/l	0.00	54.2	5000	74	P	
63	**Cu**	1	**0.008**	ug/l	0.01	65.3	5000	74	P	
66	**Zn**	1	**-0.006**	ug/l	-0.01	226.8	5000	74	P	
78	**Se**	1	**-0.075**	ug/l	-0.08	39.1	5000	74	P	
88	**Sr**	1	**0.001**	ug/l	0.00	1088.2	5000	74	P	
95	**Mo**	1	**0.092**	ug/l	0.09	26.8	5000	103	P	
109	**Ag**	1	**-0.001**	ug/l	0.00	98.3	200	103	P	
111	**Cd**	1	**-0.003**	ug/l	0.00	281.1	5000	103	P	
118	**Sn**	1	**0.219**	ug/l	0.22	25.0	5000	103	P	
135	**Ba**	1	**0.026**	ug/l	0.03	60.5	5000	103	P	
200	**Hg**	1	**0.027**	ug/l	0.03	5.0	50	175	P	
205	**Tl**	1	**0.230**	ug/l	0.23	10.2	5000	175	P	
208	**Pb**	1	**0.031**	ug/l	0.03	27.8	5000	175	P	
238	**U**	1	**0.013**	ug/l	0.01	18.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	189046	0.35	240400	**78.6**	30	-	125	
45	Sc	1	2389135	2.12	2616000	**91.3**	30	-	125	
74	Ge	1	5315506	1.78	5524000	**96.2**	30	-	125	
103	Rh	1	7517232	0.94	7587000	**99.1**	30	-	125	
165	Ho	1	3280958	1.70	3139000	**104.5**	30	-	125	
175	Lu	1	2686005	0.33	2574000	**104.4**	30	-	125	
209	Bi	1	3362488	2.44	3148000	**106.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\081SMPL.D\081SMPL.D#
Date Acquired: Oct 18 2011 08:57 pm Acq. Method: 00He_ALL.M
Sample Name: MB 580-97945/20-A Vial Number: 3501
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.004**	ug/l	0.00	86.7	5000	6	P	
23	Na	1	**3.966**	ug/l	3.97	73.9	500000	45	P	
24	Mg	1	**0.285**	ug/l	0.28	4.2	500000	45	P	
27	Al	1	**0.712**	ug/l	0.71	16.8	500000	45	P	
31	P	1	**-1.202**	ug/l	-1.20	147.2	500000	45	P	
39	K	1	**-5.658**	ug/l	-5.66	55.7	500000	45	P	
44	Ca	1	**-2.495**	ug/l	-2.50	41.1	500000	45	P	
47	Ti	1	**0.135**	ug/l	0.13	22.1	5000	45	P	
51	V	1	**-0.078**	ug/l	-0.08	32.7	5000	45	P	
52	Cr	1	**0.013**	ug/l	0.01	86.7	5000	45	P	
57	Fe	1	**2.564**	ug/l	2.56	11.8	500000	74	P	
59	Co	1	**0.001**	ug/l	0.00	75.0	5000	45	P	
60	Ni	1	**0.035**	ug/l	0.04	17.2	5000	74	P	
63	Cu	1	**0.031**	ug/l	0.03	25.6	5000	74	P	
66	Zn	1	**0.050**	ug/l	0.05	72.0	5000	74	P	
78	Se	1	**-0.050**	ug/l	-0.05	14.9	5000	74	P	
88	Sr	1	**0.004**	ug/l	0.00	162.9	5000	74	P	
95	Mo	1	**0.036**	ug/l	0.04	27.2	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	210.9	200	103	P	
111	Cd	1	**-0.002**	ug/l	0.00	382.0	5000	103	P	
118	Sn	1	**0.124**	ug/l	0.12	24.5	5000	103	P	
135	Ba	1	**0.037**	ug/l	0.04	21.8	5000	103	P	
200	Hg	1	**0.021**	ug/l	0.02	7.7	50	175	P	
205	Tl	1	**0.086**	ug/l	0.09	22.7	5000	175	P	
208	Pb	1	**0.023**	ug/l	0.02	22.9	5000	175	P	
238	U	1	**0.004**	ug/l	0.00	10.3	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	186489	0.93	240400	**77.6**	30	-	125	
45	Sc	1	2399196	3.06	2616000	**91.7**	30	-	125	
74	Ge	1	5384368	1.16	5524000	**97.5**	30	-	125	
103	Rh	1	7546299	1.28	7587000	**99.5**	30	-	125	
165	Ho	1	3272640	1.97	3139000	**104.3**	30	-	125	
175	Lu	1	2731195	0.74	2574000	**106.1**	30	-	125	
209	Bi	1	3328844	2.77	3148000	**105.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\082SMPL.D\082SMPL.D#
Date Acquired: Oct 18 2011 09:02 pm Acq. Method: 00He_ALL.M
Sample Name: LCS 580-97945/21-A Vial Number: 3502
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**104.000**	ug/l	104.00	1.9	5000	6	P	
23	**Na**	1	**9377.000**	ug/l	9,377.00	0.6	500000	45	A	
24	**Mg**	1	**9402.000**	ug/l	9,402.00	2.2	500000	45	A	
27	**Al**	1	**926.900**	ug/l	926.90	1.8	500000	45	A	
31	**P**	1	**9710.000**	ug/l	9,710.00	2.6	500000	45	P	
39	**K**	1	**9712.000**	ug/l	9,712.00	1.5	500000	45	A	
44	**Ca**	1	**10010.000**	ug/l	10,010.00	1.0	500000	45	A	
47	**Ti**	1	**98.620**	ug/l	98.62	2.4	5000	45	P	
51	**V**	1	**101.000**	ug/l	101.00	3.9	5000	45	A	
52	**Cr**	1	**101.000**	ug/l	101.00	1.3	5000	45	A	
57	**Fe**	1	**9658.000**	ug/l	9,658.00	0.5	500000	74	A	
59	**Co**	1	**101.300**	ug/l	101.30	1.1	5000	45	A	
60	**Ni**	1	**95.550**	ug/l	95.55	1.9	5000	74	P	
63	**Cu**	1	**95.830**	ug/l	95.83	0.6	5000	74	A	
66	**Zn**	1	**99.600**	ug/l	99.60	1.7	5000	74	P	
78	**Se**	1	**100.500**	ug/l	100.50	1.3	5000	74	P	
88	**Sr**	1	**98.310**	ug/l	98.31	1.0	5000	74	A	
95	**Mo**	1	**96.440**	ug/l	96.44	0.6	5000	103	P	
109	**Ag**	1	**97.940**	ug/l	97.94	0.6	200	103	A	
111	**Cd**	1	**102.400**	ug/l	102.40	0.4	5000	103	P	
118	**Sn**	1	**97.110**	ug/l	97.11	1.3	5000	103	P	
135	**Ba**	1	**103.300**	ug/l	103.30	0.8	5000	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	10.7	50	175	P	
205	**Tl**	1	**107.800**	ug/l	107.80	1.8	5000	175	A	
208	**Pb**	1	**98.860**	ug/l	98.86	1.9	5000	175	A	
238	**U**	1	**99.270**	ug/l	99.27	1.6	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	190744	1.02	240400	**79.3**	30	-	125	
45	Sc	1	2417712	2.89	2616000	**92.4**	30	-	125	
74	Ge	1	5358451	1.87	5524000	**97.0**	30	-	125	
103	Rh	1	7212282	1.15	7587000	**95.1**	30	-	125	
165	Ho	1	3187957	2.62	3139000	**101.6**	30	-	125	
175	Lu	1	2669277	1.99	2574000	**103.7**	30	-	125	
209	Bi	1	3149474	2.96	3148000	**100.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\083SMPL.D\083SMPL.D#
Date Acquired: Oct 18 2011 09:07 pm Acq. Method: 00He_ALL.M
Sample Name: LCSD 580-97945/22-A Vial Number: 3503
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**105.400**	ug/l	105.40	1.6	5000	6	P	
23	**Na**	1	**9506.000**	ug/l	9,506.00	3.1	500000	45	A	
24	**Mg**	1	**9436.000**	ug/l	9,436.00	2.5	500000	45	A	
27	**Al**	1	**951.700**	ug/l	951.70	2.4	500000	45	A	
31	**P**	1	**9647.000**	ug/l	9,647.00	2.2	500000	45	M	
39	**K**	1	**9646.000**	ug/l	9,646.00	1.9	500000	45	A	
44	**Ca**	1	**9952.000**	ug/l	9,952.00	0.6	500000	45	A	
47	**Ti**	1	**99.260**	ug/l	99.26	2.5	5000	45	P	
51	**V**	1	**102.300**	ug/l	102.30	1.8	5000	45	A	
52	**Cr**	1	**99.910**	ug/l	99.91	2.1	5000	45	A	
57	**Fe**	1	**9737.000**	ug/l	9,737.00	0.9	500000	74	A	
59	**Co**	1	**101.800**	ug/l	101.80	2.7	5000	45	A	
60	**Ni**	1	**96.670**	ug/l	96.67	1.2	5000	74	P	
63	**Cu**	1	**99.860**	ug/l	99.86	2.2	5000	74	A	
66	**Zn**	1	**100.400**	ug/l	100.40	1.5	5000	74	P	
78	**Se**	1	**101.900**	ug/l	101.90	1.1	5000	74	P	
88	**Sr**	1	**99.140**	ug/l	99.14	2.7	5000	74	A	
95	**Mo**	1	**98.530**	ug/l	98.53	0.5	5000	103	P	
109	**Ag**	1	**102.200**	ug/l	102.20	1.1	200	103	A	
111	**Cd**	1	**104.700**	ug/l	104.70	1.4	5000	103	P	
118	**Sn**	1	**99.470**	ug/l	99.47	1.6	5000	103	P	
135	**Ba**	1	**104.900**	ug/l	104.90	0.9	5000	103	P	
200	**Hg**	1	**0.013**	ug/l	0.01	27.8	50	175	P	
205	**Tl**	1	**108.000**	ug/l	108.00	1.8	5000	175	A	
208	**Pb**	1	**99.830**	ug/l	99.83	2.6	5000	175	A	
238	**U**	1	**100.100**	ug/l	100.10	1.2	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	190256	1.29	240400	**79.1**	30	-	125	
45	Sc	1	2453702	2.26	2616000	**93.8**	30	-	125	
74	Ge	1	5331388	1.23	5524000	**96.5**	30	-	125	
103	Rh	1	7201479	0.65	7587000	**94.9**	30	-	125	
165	Ho	1	3196134	0.15	3139000	**101.8**	30	-	125	
175	Lu	1	2655084	1.68	2574000	**103.2**	30	-	125	
209	Bi	1	3137824	2.77	3148000	**99.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\084SMPL.D\084SMPL.D#
Date Acquired: Oct 18 2011 09:12 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.170**	ug/l	50.17	0.7	5000	6	P	
23	**Na**	1	**4566.000**	ug/l	4,566.00	1.8	500000	45	A	
24	**Mg**	1	**4527.000**	ug/l	4,527.00	1.0	500000	45	A	
27	**Al**	1	**463.900**	ug/l	463.90	1.3	500000	45	P	
31	**P**	1	**4556.000**	ug/l	4,556.00	1.4	500000	45	P	
39	**K**	1	**4777.000**	ug/l	4,777.00	1.5	500000	45	A	
44	**Ca**	1	**4802.000**	ug/l	4,802.00	1.6	500000	45	P	
47	**Ti**	1	**48.490**	ug/l	48.49	1.9	5000	45	P	
51	**V**	1	**48.360**	ug/l	48.36	1.8	5000	45	P	
52	**Cr**	1	**48.600**	ug/l	48.60	1.4	5000	45	P	
57	**Fe**	1	**4902.000**	ug/l	4,902.00	1.6	500000	74	A	
59	**Co**	1	**50.000**	ug/l	50.00	1.3	5000	45	P	
60	**Ni**	1	**47.500**	ug/l	47.50	1.1	5000	74	P	
63	**Cu**	1	**48.440**	ug/l	48.44	1.0	5000	74	P	
66	**Zn**	1	**50.550**	ug/l	50.55	0.3	5000	74	P	
78	**Se**	1	**48.640**	ug/l	48.64	1.0	5000	74	P	
88	**Sr**	1	**48.880**	ug/l	48.88	0.3	5000	74	P	
95	**Mo**	1	**47.430**	ug/l	47.43	0.7	5000	103	P	
109	**Ag**	1	**49.450**	ug/l	49.45	1.3	200	103	P	
111	**Cd**	1	**48.980**	ug/l	48.98	0.1	5000	103	P	
118	**Sn**	1	**49.030**	ug/l	49.03	1.5	5000	103	P	
135	**Ba**	1	**49.980**	ug/l	49.98	0.5	5000	103	P	
200	**Hg**	1	**2.448**	ug/l	2.45	0.7	50	175	P	
205	**Tl**	1	**52.800**	ug/l	52.80	2.8	5000	175	A	
208	**Pb**	1	**49.550**	ug/l	49.55	0.7	5000	175	P	
238	**U**	1	**50.000**	ug/l	50.00	0.2	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	189200	1.21	240400	**78.7**	30	-	125	
45	Sc	1	2427352	1.19	2616000	**92.8**	30	-	125	
74	Ge	1	5276517	0.56	5524000	**95.5**	30	-	125	
103	Rh	1	7372240	1.06	7587000	**97.2**	30	-	125	
165	Ho	1	3248860	1.02	3139000	**103.5**	30	-	125	
175	Lu	1	2649081	0.37	2574000	**102.9**	30	-	125	
209	Bi	1	3235866	1.50	3148000	**102.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\085SMPL.D\085SMPL.D#
Date Acquired: Oct 18 2011 09:16 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.014**	ug/l	0.01	23.3	5000	6	P	
23	Na	1	**2.893**	ug/l	2.89	15.6	500000	45	P	
24	Mg	1	**0.271**	ug/l	0.27	5.1	500000	45	P	
27	Al	1	**-0.086**	ug/l	-0.09	96.7	500000	45	P	
31	P	1	**-2.380**	ug/l	-2.38	72.0	500000	45	P	
39	K	1	**-6.378**	ug/l	-6.38	20.0	500000	45	P	
44	Ca	1	**-2.920**	ug/l	-2.92	15.1	500000	45	P	
47	Ti	1	**0.093**	ug/l	0.09	40.5	5000	45	P	
51	V	1	**-0.058**	ug/l	-0.06	17.4	5000	45	P	
52	Cr	1	**-0.004**	ug/l	0.00	268.9	5000	45	P	
57	Fe	1	**2.424**	ug/l	2.42	13.8	500000	74	P	
59	Co	1	**0.005**	ug/l	0.01	28.0	5000	45	P	
60	Ni	1	**-0.003**	ug/l	0.00	155.5	5000	74	P	
63	Cu	1	**0.007**	ug/l	0.01	79.2	5000	74	P	
66	Zn	1	**-0.006**	ug/l	-0.01	329.2	5000	74	P	
78	Se	1	**0.044**	ug/l	0.04	90.7	5000	74	P	
88	Sr	1	**-0.002**	ug/l	0.00	37.4	5000	74	P	
95	Mo	1	**0.153**	ug/l	0.15	17.0	5000	103	P	
109	Ag	1	**0.001**	ug/l	0.00	165.9	200	103	P	
111	Cd	1	**0.012**	ug/l	0.01	64.2	5000	103	P	
118	Sn	1	**0.437**	ug/l	0.44	14.1	5000	103	P	
135	Ba	1	**0.008**	ug/l	0.01	77.3	5000	103	P	
200	Hg	1	**0.019**	ug/l	0.02	25.9	50	175	P	
205	Tl	1	**0.330**	ug/l	0.33	14.4	5000	175	P	
208	Pb	1	**0.032**	ug/l	0.03	13.5	5000	175	P	
238	U	1	**0.023**	ug/l	0.02	21.9	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	188799	1.65	240400	**78.5**	30	-	125	
45	Sc	1	2414820	0.87	2616000	**92.3**	30	-	125	
74	Ge	1	5373330	0.87	5524000	**97.3**	30	-	125	
103	Rh	1	7647532	0.64	7587000	**100.8**	30	-	125	
165	Ho	1	3292478	2.56	3139000	**104.9**	30	-	125	
175	Lu	1	2708326	1.19	2574000	**105.2**	30	-	125	
209	Bi	1	3350078	2.73	3148000	**106.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\086SMPL.D\086SMPL.D#
Date Acquired: Oct 18 2011 09:21 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29144-H-1-A SD Vial Number: 4101
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **5.00** Final Dil Factor: **5.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.006**	ug/l	0.03	58.2	5000	6	P	
23	Na	1	**41360.000**	ug/l	206,800.00	2.2	500000	45	A	
24	Mg	1	**3362.000**	ug/l	16,810.00	0.7	500000	45	A	
27	Al	1	**14.690**	ug/l	73.45	3.7	500000	45	P	
31	P	1	**60.940**	ug/l	304.70	5.8	500000	45	P	
39	K	1	**12490.000**	ug/l	62,450.00	2.2	500000	45	A	
44	Ca	1	**11580.000**	ug/l	57,900.00	1.8	500000	45	A	
47	Ti	1	**0.240**	ug/l	1.20	13.4	5000	45	P	
51	V	1	**2.365**	ug/l	11.83	3.3	5000	45	P	
52	Cr	1	**0.103**	ug/l	0.52	3.7	5000	45	P	
57	Fe	1	**42.330**	ug/l	211.65	0.9	500000	74	P	
59	Co	1	**0.044**	ug/l	0.22	3.1	5000	45	P	
60	Ni	1	**0.369**	ug/l	1.84	1.1	5000	74	P	
63	Cu	1	**0.199**	ug/l	1.00	4.3	5000	74	P	
66	Zn	1	**2.940**	ug/l	14.70	1.4	5000	74	P	
78	Se	1	**0.053**	ug/l	0.27	67.6	5000	74	P	
88	Sr	1	**62.110**	ug/l	310.55	0.3	5000	74	P	
95	Mo	1	**0.524**	ug/l	2.62	3.9	5000	103	P	
109	Ag	1	**0.002**	ug/l	0.01	67.4	200	103	P	
111	Cd	1	**0.010**	ug/l	0.05	76.2	5000	103	P	
118	Sn	1	**0.316**	ug/l	1.58	17.5	5000	103	P	
135	Ba	1	**9.627**	ug/l	48.14	1.6	5000	103	P	
200	Hg	1	**0.013**	ug/l	0.06	5.2	50	175	P	
205	Tl	1	**0.118**	ug/l	0.59	14.6	5000	175	P	
208	Pb	1	**0.008**	ug/l	0.04	113.8	5000	175	P	
238	U	1	**0.351**	ug/l	1.75	4.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	196107	0.66	240400	**81.6**	30	-	125	
45	Sc	1	2443411	2.51	2616000	**93.4**	30	-	125	
74	Ge	1	5377698	0.34	5524000	**97.4**	30	-	125	
103	Rh	1	7141198	1.48	7587000	**94.1**	30	-	125	
165	Ho	1	3205531	1.73	3139000	**102.1**	30	-	125	
175	Lu	1	2672904	3.33	2574000	**103.8**	30	-	125	
209	Bi	1	3080825	1.71	3148000	**97.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\087SMPL.D\087SMPL.D#
Date Acquired: Oct 18 2011 09:26 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29144-H-1-A Vial Number: 4102
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.012**	ug/l	0.01	83.0	5000	6	P	
23	**Na**	1	**205400.000**	ug/l	205,400.00	0.4	500000	45	A	
24	**Mg**	1	**16400.000**	ug/l	16,400.00	0.6	500000	45	A	
27	**Al**	1	**28.210**	ug/l	28.21	2.5	500000	45	P	
31	**P**	1	**334.500**	ug/l	334.50	3.6	500000	45	P	
39	**K**	1	**61060.000**	ug/l	61,060.00	1.7	500000	45	A	
44	**Ca**	1	**55570.000**	ug/l	55,570.00	1.8	500000	45	A	
47	**Ti**	1	**0.911**	ug/l	0.91	1.8	5000	45	P	
51	**V**	1	**11.800**	ug/l	11.80	2.7	5000	45	P	
52	**Cr**	1	**0.599**	ug/l	0.60	1.3	5000	45	P	
57	**Fe**	1	**198.200**	ug/l	198.20	1.0	500000	74	P	
59	**Co**	1	**0.207**	ug/l	0.21	3.9	5000	45	P	
60	**Ni**	1	**2.145**	ug/l	2.15	1.8	5000	74	P	
63	**Cu**	1	**0.907**	ug/l	0.91	1.9	5000	74	P	
66	**Zn**	1	**14.440**	ug/l	14.44	2.9	5000	74	P	
78	**Se**	1	**0.285**	ug/l	0.29	14.0	5000	74	P	
88	**Sr**	1	**298.600**	ug/l	298.60	1.1	5000	74	A	
95	**Mo**	1	**2.348**	ug/l	2.35	1.0	5000	103	P	
109	**Ag**	1	**0.010**	ug/l	0.01	17.2	200	103	P	
111	**Cd**	1	**0.013**	ug/l	0.01	64.1	5000	103	P	
118	**Sn**	1	**0.491**	ug/l	0.49	4.1	5000	103	P	
135	**Ba**	1	**49.410**	ug/l	49.41	1.5	5000	103	P	
200	**Hg**	1	**0.022**	ug/l	0.02	16.7	50	175	P	
205	**Tl**	1	**0.067**	ug/l	0.07	8.2	5000	175	P	
208	**Pb**	1	**0.082**	ug/l	0.08	6.2	5000	175	P	
238	**U**	1	**1.726**	ug/l	1.73	2.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	193105	1.00	240400	**80.3**	30	-	125	
45	Sc	1	2417744	1.36	2616000	**92.4**	30	-	125	
74	Ge	1	5102720	0.28	5524000	**92.4**	30	-	125	
103	Rh	1	6457594	0.95	7587000	**85.1**	30	-	125	
165	Ho	1	2958609	0.77	3139000	**94.3**	30	-	125	
175	Lu	1	2437202	1.91	2574000	**94.7**	30	-	125	
209	Bi	1	2727959	2.07	3148000	**86.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\088SMPL.D\088SMPL.D#
Date Acquired: Oct 18 2011 09:31 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29144-H-1-B DU Vial Number: 4103
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.012**	ug/l	0.01	72.2	5000	6	P	
23	**Na**	1	**207400.000**	ug/l	207,400.00	2.1	500000	45	A	
24	**Mg**	1	**16490.000**	ug/l	16,490.00	1.9	500000	45	A	
27	**Al**	1	**28.130**	ug/l	28.13	1.6	500000	45	P	
31	**P**	1	**353.800**	ug/l	353.80	2.1	500000	45	P	
39	**K**	1	**61630.000**	ug/l	61,630.00	1.3	500000	45	A	
44	**Ca**	1	**56180.000**	ug/l	56,180.00	1.4	500000	45	A	
47	**Ti**	1	**0.963**	ug/l	0.96	15.5	5000	45	P	
51	**V**	1	**11.960**	ug/l	11.96	2.2	5000	45	P	
52	**Cr**	1	**0.564**	ug/l	0.56	1.0	5000	45	P	
57	**Fe**	1	**199.300**	ug/l	199.30	1.7	500000	74	P	
59	**Co**	1	**0.199**	ug/l	0.20	4.8	5000	45	P	
60	**Ni**	1	**2.011**	ug/l	2.01	0.2	5000	74	P	
63	**Cu**	1	**0.907**	ug/l	0.91	1.0	5000	74	P	
66	**Zn**	1	**14.670**	ug/l	14.67	1.7	5000	74	P	
78	**Se**	1	**0.289**	ug/l	0.29	15.3	5000	74	P	
88	**Sr**	1	**300.700**	ug/l	300.70	1.4	5000	74	A	
95	**Mo**	1	**2.373**	ug/l	2.37	1.3	5000	103	P	
109	**Ag**	1	**0.004**	ug/l	0.00	110.0	200	103	P	
111	**Cd**	1	**0.005**	ug/l	0.00	162.9	5000	103	P	
118	**Sn**	1	**0.439**	ug/l	0.44	4.2	5000	103	P	
135	**Ba**	1	**49.580**	ug/l	49.58	1.3	5000	103	P	
200	**Hg**	1	**0.019**	ug/l	0.02	15.8	50	175	P	
205	**Tl**	1	**0.051**	ug/l	0.05	31.7	5000	175	P	
208	**Pb**	1	**0.079**	ug/l	0.08	12.8	5000	175	P	
238	**U**	1	**1.752**	ug/l	1.75	1.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	191852	0.99	240400	**79.8**	30	-	125	
45	Sc	1	2405698	2.19	2616000	**92.0**	30	-	125	
74	Ge	1	5035487	0.70	5524000	**91.2**	30	-	125	
103	Rh	1	6440093	1.48	7587000	**84.9**	30	-	125	
165	Ho	1	2969044	0.54	3139000	**94.6**	30	-	125	
175	Lu	1	2432124	1.10	2574000	**94.5**	30	-	125	
209	Bi	1	2739924	2.29	3148000	**87.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\089SMPL.D\089SMPL.D#
Date Acquired: Oct 18 2011 09:36 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29144-H-1-C MS Vial Number: 4104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**104.900**	ug/l	104.90	1.6	5000	6	P	
23	**Na**	1	**208300.000**	ug/l	208,300.00	2.4	500000	45	A	
24	**Mg**	1	**25100.000**	ug/l	25,100.00	1.3	500000	45	A	
27	**Al**	1	**973.700**	ug/l	973.70	0.8	500000	45	A	
31	**P**	1	**10140.000**	ug/l	10,140.00	1.7	500000	45	P	
39	**K**	1	**67860.000**	ug/l	67,860.00	1.3	500000	45	A	
44	**Ca**	1	**62050.000**	ug/l	62,050.00	1.4	500000	45	A	
47	**Ti**	1	**99.290**	ug/l	99.29	2.1	5000	45	P	
51	**V**	1	**110.100**	ug/l	110.10	1.9	5000	45	A	
52	**Cr**	1	**96.910**	ug/l	96.91	2.9	5000	45	A	
57	**Fe**	1	**9888.000**	ug/l	9,888.00	0.1	500000	74	A	
59	**Co**	1	**96.140**	ug/l	96.14	1.2	5000	45	A	
60	**Ni**	1	**97.150**	ug/l	97.15	1.4	5000	74	P	
63	**Cu**	1	**97.500**	ug/l	97.50	1.6	5000	74	A	
66	**Zn**	1	**111.100**	ug/l	111.10	0.8	5000	74	P	
78	**Se**	1	**100.000**	ug/l	100.00	0.3	5000	74	P	
88	**Sr**	1	**381.300**	ug/l	381.30	0.9	5000	74	A	
95	**Mo**	1	**107.200**	ug/l	107.20	0.8	5000	103	P	
109	**Ag**	1	**98.050**	ug/l	98.05	0.7	200	103	A	
111	**Cd**	1	**103.600**	ug/l	103.60	0.9	5000	103	P	
118	**Sn**	1	**103.500**	ug/l	103.50	1.3	5000	103	P	
135	**Ba**	1	**152.900**	ug/l	152.90	1.0	5000	103	P	
200	**Hg**	1	**0.017**	ug/l	0.02	14.2	50	175	P	
205	**Tl**	1	**104.700**	ug/l	104.70	1.6	5000	175	A	
208	**Pb**	1	**95.790**	ug/l	95.79	0.6	5000	175	A	
238	**U**	1	**100.400**	ug/l	100.40	1.5	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	192010	0.92	240400	**79.9**	30	-	125	
45	Sc	1	2443994	2.25	2616000	**93.4**	30	-	125	
74	Ge	1	5061176	0.96	5524000	**91.6**	30	-	125	
103	Rh	1	6464271	0.49	7587000	**85.2**	30	-	125	
165	Ho	1	2930179	0.43	3139000	**93.3**	30	-	125	
175	Lu	1	2430255	0.99	2574000	**94.4**	30	-	125	
209	Bi	1	2680213	3.07	3148000	**85.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\090SMPL.D\090SMPL.D#
Date Acquired: Oct 18 2011 09:40 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29144-H-1-D MSD Vial Number: 4105
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**106.200**	ug/l	106.20	1.7	5000	6	P	
23	**Na**	1	**213100.000**	ug/l	213,100.00	1.3	500000	45	A	
24	**Mg**	1	**25720.000**	ug/l	25,720.00	1.5	500000	45	A	
27	**Al**	1	**1005.000**	ug/l	1,005.00	0.9	500000	45	A	
31	**P**	1	**10310.000**	ug/l	10,310.00	1.0	500000	45	A	
39	**K**	1	**70350.000**	ug/l	70,350.00	0.5	500000	45	A	
44	**Ca**	1	**63830.000**	ug/l	63,830.00	0.5	500000	45	A	
47	**Ti**	1	**102.400**	ug/l	102.40	1.0	5000	45	P	
51	**V**	1	**114.400**	ug/l	114.40	0.7	5000	45	A	
52	**Cr**	1	**100.000**	ug/l	100.00	1.0	5000	45	A	
57	**Fe**	1	**10100.000**	ug/l	10,100.00	0.5	500000	74	A	
59	**Co**	1	**99.370**	ug/l	99.37	0.2	5000	45	A	
60	**Ni**	1	**99.050**	ug/l	99.05	1.0	5000	74	P	
63	**Cu**	1	**99.180**	ug/l	99.18	0.8	5000	74	A	
66	**Zn**	1	**113.200**	ug/l	113.20	1.8	5000	74	P	
78	**Se**	1	**101.900**	ug/l	101.90	1.0	5000	74	P	
88	**Sr**	1	**390.100**	ug/l	390.10	0.6	5000	74	A	
95	**Mo**	1	**109.600**	ug/l	109.60	1.0	5000	103	P	
109	**Ag**	1	**99.820**	ug/l	99.82	1.7	200	103	A	
111	**Cd**	1	**105.400**	ug/l	105.40	2.0	5000	103	P	
118	**Sn**	1	**106.000**	ug/l	106.00	2.1	5000	103	P	
135	**Ba**	1	**153.600**	ug/l	153.60	0.7	5000	103	P	
200	**Hg**	1	**0.020**	ug/l	0.02	22.3	50	175	P	
205	**Tl**	1	**107.500**	ug/l	107.50	0.5	5000	175	A	
208	**Pb**	1	**97.940**	ug/l	97.94	1.5	5000	175	A	
238	**U**	1	**102.300**	ug/l	102.30	1.9	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	190008	1.62	240400	**79.0**	30	-	125	
45	Sc	1	2400584	1.10	2616000	**91.8**	30	-	125	
74	Ge	1	5033618	1.24	5524000	**91.1**	30	-	125	
103	Rh	1	6471966	1.05	7587000	**85.3**	30	-	125	
165	Ho	1	2944241	1.47	3139000	**93.8**	30	-	125	
175	Lu	1	2398574	1.92	2574000	**93.2**	30	-	125	
209	Bi	1	2690295	3.41	3148000	**85.5**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\091SMPL.D\091SMPL.D#
Date Acquired: Oct 18 2011 09:45 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29144-H-1-A PDS Vial Number: 4106
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**105.800**	ug/l	105.80	0.7	5000	6	P	
23	**Na**	1	**206400.000**	ug/l	206,400.00	1.4	500000	45	A	
24	**Mg**	1	**25100.000**	ug/l	25,100.00	1.0	500000	45	A	
27	**Al**	1	**994.900**	ug/l	994.90	2.6	500000	45	A	
31	**P**	1	**10170.000**	ug/l	10,170.00	0.8	500000	45	M	
39	**K**	1	**67380.000**	ug/l	67,380.00	1.8	500000	45	A	
44	**Ca**	1	**62870.000**	ug/l	62,870.00	2.0	500000	45	A	
47	**Ti**	1	**99.700**	ug/l	99.70	1.4	5000	45	P	
51	**V**	1	**111.000**	ug/l	111.00	1.2	5000	45	A	
52	**Cr**	1	**96.800**	ug/l	96.80	2.0	5000	45	A	
57	**Fe**	1	**9903.000**	ug/l	9,903.00	0.9	500000	74	A	
59	**Co**	1	**98.020**	ug/l	98.02	1.6	5000	45	A	
60	**Ni**	1	**97.510**	ug/l	97.51	0.5	5000	74	P	
63	**Cu**	1	**97.360**	ug/l	97.36	1.0	5000	74	A	
66	**Zn**	1	**111.200**	ug/l	111.20	0.6	5000	74	P	
78	**Se**	1	**99.660**	ug/l	99.66	0.1	5000	74	P	
88	**Sr**	1	**378.800**	ug/l	378.80	0.3	5000	74	A	
95	**Mo**	1	**106.700**	ug/l	106.70	0.9	5000	103	P	
109	**Ag**	1	**98.190**	ug/l	98.19	1.8	200	103	A	
111	**Cd**	1	**103.500**	ug/l	103.50	1.1	5000	103	P	
118	**Sn**	1	**103.400**	ug/l	103.40	1.1	5000	103	P	
135	**Ba**	1	**150.500**	ug/l	150.50	0.8	5000	103	P	
200	**Hg**	1	**0.018**	ug/l	0.02	21.8	50	175	P	
205	**Tl**	1	**105.500**	ug/l	105.50	1.0	5000	175	A	
208	**Pb**	1	**96.140**	ug/l	96.14	0.9	5000	175	A	
238	**U**	1	**100.700**	ug/l	100.70	1.1	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	191462	0.79	240400	**79.6**	30	-	125	
45	Sc	1	2431591	2.28	2616000	**93.0**	30	-	125	
74	Ge	1	5026406	0.93	5524000	**91.0**	30	-	125	
103	Rh	1	6520192	0.91	7587000	**85.9**	30	-	125	
165	Ho	1	2954996	1.15	3139000	**94.1**	30	-	125	
175	Lu	1	2423088	1.30	2574000	**94.1**	30	-	125	
209	Bi	1	2713268	3.50	3148000	**86.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\092SMPL.D\092SMPL.D#
Date Acquired: Oct 18 2011 09:50 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**49.570**	ug/l	49.57	1.2	5000	6	P	
23	Na	1	**4660.000**	ug/l	4,660.00	1.1	500000	45	A	
24	Mg	1	**4673.000**	ug/l	4,673.00	2.8	500000	45	A	
27	Al	1	**471.100**	ug/l	471.10	1.7	500000	45	P	
31	P	1	**4598.000**	ug/l	4,598.00	1.4	500000	45	P	
39	K	1	**4838.000**	ug/l	4,838.00	0.7	500000	45	A	
44	Ca	1	**4846.000**	ug/l	4,846.00	0.8	500000	45	P	
47	Ti	1	**48.470**	ug/l	48.47	0.8	5000	45	P	
51	V	1	**48.950**	ug/l	48.95	0.8	5000	45	P	
52	Cr	1	**49.370**	ug/l	49.37	1.3	5000	45	P	
57	Fe	1	**4771.000**	ug/l	4,771.00	0.5	500000	74	A	
59	Co	1	**50.130**	ug/l	50.13	1.6	5000	45	P	
60	Ni	1	**46.990**	ug/l	46.99	0.6	5000	74	P	
63	Cu	1	**47.720**	ug/l	47.72	0.9	5000	74	P	
66	Zn	1	**49.410**	ug/l	49.41	1.4	5000	74	P	
78	Se	1	**47.990**	ug/l	47.99	1.3	5000	74	P	
88	Sr	1	**48.510**	ug/l	48.51	1.1	5000	74	P	
95	Mo	1	**47.980**	ug/l	47.98	0.9	5000	103	P	
109	Ag	1	**49.270**	ug/l	49.27	0.7	200	103	P	
111	Cd	1	**49.470**	ug/l	49.47	0.8	5000	103	P	
118	Sn	1	**49.420**	ug/l	49.42	1.4	5000	103	P	
135	Ba	1	**50.010**	ug/l	50.01	0.6	5000	103	P	
200	Hg	1	**2.419**	ug/l	2.42	2.6	50	175	P	
205	Tl	1	**52.260**	ug/l	52.26	4.4	5000	175	A	
208	Pb	1	**49.400**	ug/l	49.40	1.9	5000	175	P	
238	U	1	**49.960**	ug/l	49.96	3.8	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	196875	0.89	240400	**81.9**	30	-	125	
45	Sc	1	2473062	1.25	2616000	**94.5**	30	-	125	
74	Ge	1	5470998	0.98	5524000	**99.0**	30	-	125	
103	Rh	1	7509220	0.86	7587000	**99.0**	30	-	125	
165	Ho	1	3279785	1.60	3139000	**104.5**	30	-	125	
175	Lu	1	2685764	1.27	2574000	**104.3**	30	-	125	
209	Bi	1	3243221	1.27	3148000	**103.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\093SMPL.D\093SMPL.D#
Date Acquired: Oct 18 2011 09:55 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.012**	ug/l	0.01	71.7	5000	6	P	
23	Na	1	**3.892**	ug/l	3.89	67.1	500000	45	P	
24	Mg	1	**0.417**	ug/l	0.42	11.5	500000	45	P	
27	Al	1	**-0.156**	ug/l	-0.16	214.5	500000	45	P	
31	P	1	**0.166**	ug/l	0.17	306.7	500000	45	P	
39	K	1	**-4.951**	ug/l	-4.95	60.8	500000	45	P	
44	Ca	1	**-2.702**	ug/l	-2.70	12.9	500000	45	P	
47	Ti	1	**0.071**	ug/l	0.07	42.1	5000	45	P	
51	V	1	**-0.063**	ug/l	-0.06	19.1	5000	45	P	
52	Cr	1	**-0.003**	ug/l	0.00	149.0	5000	45	P	
57	Fe	1	**2.396**	ug/l	2.40	8.1	500000	74	P	
59	Co	1	**0.005**	ug/l	0.01	18.8	5000	45	P	
60	Ni	1	**-0.002**	ug/l	0.00	218.0	5000	74	P	
63	Cu	1	**0.041**	ug/l	0.04	8.5	5000	74	P	
66	Zn	1	**-0.033**	ug/l	-0.03	120.6	5000	74	P	
78	Se	1	**-0.039**	ug/l	-0.04	43.8	5000	74	P	
88	Sr	1	**-0.001**	ug/l	0.00	586.0	5000	74	P	
95	Mo	1	**0.161**	ug/l	0.16	28.0	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	428.0	200	103	P	
111	Cd	1	**0.008**	ug/l	0.01	114.3	5000	103	P	
118	Sn	1	**0.387**	ug/l	0.39	19.9	5000	103	P	
135	Ba	1	**0.004**	ug/l	0.00	281.2	5000	103	P	
200	Hg	1	**0.016**	ug/l	0.02	6.8	50	175	P	
205	Tl	1	**0.306**	ug/l	0.31	12.4	5000	175	P	
208	Pb	1	**0.015**	ug/l	0.01	52.5	5000	175	P	
238	U	1	**0.023**	ug/l	0.02	18.9	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	192972	0.67	240400	**80.3**	30	-	125	
45	Sc	1	2475296	3.09	2616000	**94.6**	30	-	125	
74	Ge	1	5534753	0.96	5524000	**100.2**	30	-	125	
103	Rh	1	7684318	1.31	7587000	**101.3**	30	-	125	
165	Ho	1	3349888	1.75	3139000	**106.7**	30	-	125	
175	Lu	1	2772778	2.09	2574000	**107.7**	30	-	125	
209	Bi	1	3357651	2.26	3148000	**106.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\094SMPL.D\094SMPL.D#
Date Acquired: Oct 18 2011 10:00 pm Acq. Method: 00He_ALL.M
Sample Name: 720-38133-A-1-A Vial Number: 4201
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.027**	ug/l	0.03	19.2	5000	6	P	
23	Na	1	**214800.000**	ug/l	214,800.00	0.2	500000	45	A	
24	Mg	1	**108600.000**	ug/l	108,600.00	0.4	500000	45	A	
27	Al	1	**-2.265**	ug/l	-2.27	5.8	500000	45	P	
31	P	1	**8946.000**	ug/l	8,946.00	0.2	500000	45	P	
39	K	1	**6651.000**	ug/l	6,651.00	1.1	500000	45	A	
44	Ca	1	**72580.000**	ug/l	72,580.00	0.4	500000	45	A	
47	Ti	1	**2.134**	ug/l	2.13	5.2	5000	45	P	
51	V	1	**3.685**	ug/l	3.69	1.1	5000	45	P	
52	Cr	1	**0.768**	ug/l	0.77	5.0	5000	45	P	
57	Fe	1	**928.900**	ug/l	928.90	1.3	500000	74	P	
59	Co	1	**6.718**	ug/l	6.72	1.4	5000	45	P	
60	Ni	1	**15.380**	ug/l	15.38	1.0	5000	74	P	
63	Cu	1	**0.901**	ug/l	0.90	2.0	5000	74	P	
66	Zn	1	**0.873**	ug/l	0.87	2.2	5000	74	P	
78	Se	1	**3.637**	ug/l	3.64	1.7	5000	74	P	
88	Sr	1	**901.100**	ug/l	901.10	1.0	5000	74	A	
95	Mo	1	**89.890**	ug/l	89.89	1.4	5000	103	P	
109	Ag	1	**0.003**	ug/l	0.00	45.1	200	103	P	
111	Cd	1	**0.009**	ug/l	0.01	335.2	5000	103	P	
118	Sn	1	**0.354**	ug/l	0.35	4.7	5000	103	P	
135	Ba	1	**121.700**	ug/l	121.70	1.1	5000	103	P	
200	Hg	1	**0.101**	ug/l	0.10	4.6	50	175	P	
205	Tl	1	**0.101**	ug/l	0.10	19.7	5000	175	P	
208	Pb	1	**-0.002**	ug/l	0.00	501.1	5000	175	P	
238	U	1	**36.990**	ug/l	36.99	2.2	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	184202	0.64	240400	**76.6**	30	-	125	
45	Sc	1	2356688	1.21	2616000	**90.1**	30	-	125	
74	Ge	1	5028620	1.28	5524000	**91.0**	30	-	125	
103	Rh	1	6447821	1.06	7587000	**85.0**	30	-	125	
165	Ho	1	2942348	0.55	3139000	**93.7**	30	-	125	
175	Lu	1	2443856	1.48	2574000	**94.9**	30	-	125	
209	Bi	1	2678493	3.05	3148000	**85.1**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\095SMPL.D\095SMPL.D#
Date Acquired: Oct 18 2011 10:04 pm Acq. Method: 00He_ALL.M
Sample Name: 720-38133-A-2-A Vial Number: 4202
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.017**	ug/l	0.02	35.2	5000	6	P	
23	**Na**	1	**216600.000**	ug/l	216,600.00	1.6	500000	45	A	
24	**Mg**	1	**107700.000**	ug/l	107,700.00	1.9	500000	45	A	
27	**Al**	1	**-1.654**	ug/l	-1.65	4.7	500000	45	P	
31	**P**	1	**5544.000**	ug/l	5,544.00	2.4	500000	45	P	
39	**K**	1	**6499.000**	ug/l	6,499.00	1.3	500000	45	A	
44	**Ca**	1	**71500.000**	ug/l	71,500.00	1.1	500000	45	A	
47	**Ti**	1	**1.464**	ug/l	1.46	7.2	5000	45	P	
51	**V**	1	**5.928**	ug/l	5.93	0.8	5000	45	P	
52	**Cr**	1	**1.787**	ug/l	1.79	3.0	5000	45	P	
57	**Fe**	1	**504.900**	ug/l	504.90	1.9	500000	74	P	
59	**Co**	1	**7.708**	ug/l	7.71	3.2	5000	45	P	
60	**Ni**	1	**16.540**	ug/l	16.54	1.6	5000	74	P	
63	**Cu**	1	**2.377**	ug/l	2.38	1.1	5000	74	P	
66	**Zn**	1	**2.322**	ug/l	2.32	4.1	5000	74	P	
78	**Se**	1	**3.441**	ug/l	3.44	5.3	5000	74	P	
88	**Sr**	1	**832.100**	ug/l	832.10	1.1	5000	74	A	
95	**Mo**	1	**93.050**	ug/l	93.05	2.2	5000	103	P	
109	**Ag**	1	**0.003**	ug/l	0.00	73.3	200	103	P	
111	**Cd**	1	**0.020**	ug/l	0.02	62.7	5000	103	P	
118	**Sn**	1	**0.281**	ug/l	0.28	7.4	5000	103	P	
135	**Ba**	1	**76.520**	ug/l	76.52	1.3	5000	103	P	
200	**Hg**	1	**0.099**	ug/l	0.10	4.5	50	175	P	
205	**Tl**	1	**0.059**	ug/l	0.06	20.1	5000	175	P	
208	**Pb**	1	**-0.010**	ug/l	-0.01	36.3	5000	175	P	
238	**U**	1	**45.020**	ug/l	45.02	0.4	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	180788	1.26	240400	**75.2**	30	-	125	
45	Sc	1	2323919	1.81	2616000	**88.8**	30	-	125	
74	Ge	1	4918602	0.79	5524000	**89.0**	30	-	125	
103	Rh	1	6317341	1.62	7587000	**83.3**	30	-	125	
165	Ho	1	2927637	0.53	3139000	**93.3**	30	-	125	
175	Lu	1	2431352	0.57	2574000	**94.5**	30	-	125	
209	Bi	1	2685451	2.46	3148000	**85.3**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\096SMPL.D\096SMPL.D#
Date Acquired: Oct 18 2011 10:09 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29240-F-1-A Vial Number: 4203
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.010**	ug/l	0.01	114.2	5000	6	P	
23	**Na**	1	**211300.000**	ug/l	211,300.00	2.2	500000	45	A	
24	**Mg**	1	**1900.000**	ug/l	1,900.00	1.2	500000	45	A	
27	**Al**	1	**808.200**	ug/l	808.20	3.6	500000	45	A	
31	**P**	1	**4549.000**	ug/l	4,549.00	1.7	500000	45	P	
39	**K**	1	**45740.000**	ug/l	45,740.00	1.0	500000	45	A	
44	**Ca**	1	**209500.000**	ug/l	209,500.00	1.1	500000	45	A	
47	**Ti**	1	**1.219**	ug/l	1.22	6.7	5000	45	P	
51	**V**	1	**5.121**	ug/l	5.12	2.7	5000	45	P	
52	**Cr**	1	**0.846**	ug/l	0.85	3.3	5000	45	P	
57	**Fe**	1	**1620.000**	ug/l	1,620.00	1.4	500000	74	P	
59	**Co**	1	**2.872**	ug/l	2.87	2.2	5000	45	P	
60	**Ni**	1	**21.570**	ug/l	21.57	1.7	5000	74	P	
63	**Cu**	1	**14.330**	ug/l	14.33	1.5	5000	74	P	
66	**Zn**	1	**36.210**	ug/l	36.21	1.9	5000	74	P	
78	**Se**	1	**0.816**	ug/l	0.82	16.4	5000	74	P	
88	**Sr**	1	**655.600**	ug/l	655.60	0.5	5000	74	A	
95	**Mo**	1	**82.560**	ug/l	82.56	0.8	5000	103	P	
109	**Ag**	1	**0.012**	ug/l	0.01	31.9	200	103	P	
111	**Cd**	1	**0.786**	ug/l	0.79	4.2	5000	103	P	
118	**Sn**	1	**22.730**	ug/l	22.73	0.5	5000	103	P	
135	**Ba**	1	**6.302**	ug/l	6.30	2.3	5000	103	P	
200	**Hg**	1	**0.275**	ug/l	0.28	3.8	50	175	P	
205	**Tl**	1	**-0.007**	ug/l	-0.01	53.7	5000	175	P	
208	**Pb**	1	**15.790**	ug/l	15.79	1.6	5000	175	P	
238	**U**	1	**0.046**	ug/l	0.05	7.5	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	180802	0.53	240400	**75.2**	30	-	125	
45	Sc	1	2325737	2.05	2616000	**88.9**	30	-	125	
74	Ge	1	4886390	1.47	5524000	**88.5**	30	-	125	
103	Rh	1	6414240	0.57	7587000	**84.5**	30	-	125	
165	Ho	1	2922312	2.12	3139000	**93.1**	30	-	125	
175	Lu	1	2377694	1.61	2574000	**92.4**	30	-	125	
209	Bi	1	2666118	1.31	3148000	**84.7**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\097SMPL.D\097SMPL.D#
Date Acquired: Oct 18 2011 10:14 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29090-B-1-A Vial Number: 4204
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.065**	ug/l	0.06	10.6	5000	6	P	
23	Na	1	**13290.000**	ug/l	13,290.00	3.0	500000	45	A	
24	Mg	1	**1752.000**	ug/l	1,752.00	3.4	500000	45	A	
27	Al	1	**1262.000**	ug/l	1,262.00	4.6	500000	45	A	
31	P	1	**376.700**	ug/l	376.70	4.0	500000	45	P	
39	K	1	**3785.000**	ug/l	3,785.00	4.4	500000	45	A	
44	Ca	1	**62220.000**	ug/l	62,220.00	1.9	500000	45	A	
47	Ti	1	**92.110**	ug/l	92.11	3.9	5000	45	P	
51	V	1	**5.300**	ug/l	5.30	8.9	5000	45	P	
52	Cr	1	**5.383**	ug/l	5.38	2.6	5000	45	P	
57	Fe	1	**1850.000**	ug/l	1,850.00	1.6	500000	74	P	
59	Co	1	**1.261**	ug/l	1.26	2.3	5000	45	P	
60	Ni	1	**3.853**	ug/l	3.85	1.2	5000	74	P	
63	Cu	1	**27.420**	ug/l	27.42	0.6	5000	74	P	
66	Zn	1	**37.190**	ug/l	37.19	1.1	5000	74	P	
78	Se	1	**1.286**	ug/l	1.29	4.6	5000	74	P	
88	Sr	1	**286.600**	ug/l	286.60	0.6	5000	74	A	
95	Mo	1	**6.497**	ug/l	6.50	8.6	5000	103	P	
109	Ag	1	**0.031**	ug/l	0.03	9.1	200	103	P	
111	Cd	1	**0.305**	ug/l	0.30	13.5	5000	103	P	
118	Sn	1	**0.671**	ug/l	0.67	4.9	5000	103	P	
135	Ba	1	**46.430**	ug/l	46.43	0.8	5000	103	P	
200	Hg	1	**0.073**	ug/l	0.07	10.5	50	175	P	
205	Tl	1	**0.061**	ug/l	0.06	14.7	5000	175	P	
208	Pb	1	**3.218**	ug/l	3.22	3.7	5000	175	P	
238	U	1	**0.404**	ug/l	0.40	4.3	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	186560	0.55	240400	**77.6**	30	-	125	
45	Sc	1	2414673	3.45	2616000	**92.3**	30	-	125	
74	Ge	1	5322474	0.21	5524000	**96.4**	30	-	125	
103	Rh	1	7121604	0.50	7587000	**93.9**	30	-	125	
165	Ho	1	3223180	1.45	3139000	**102.7**	30	-	125	
175	Lu	1	2667129	2.13	2574000	**103.6**	30	-	125	
209	Bi	1	3149233	1.10	3148000	**100.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\098SMPL.D\098SMPL.D#
Date Acquired: Oct 18 2011 10:19 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29092-A-1-A Vial Number: 4205
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.013**	ug/l	0.01	64.1	5000	6	P	
23	**Na**	1	**5774.000**	ug/l	5,774.00	0.4	500000	45	A	
24	**Mg**	1	**1696.000**	ug/l	1,696.00	1.1	500000	45	A	
27	**Al**	1	**73.780**	ug/l	73.78	2.8	500000	45	P	
31	**P**	1	**975.100**	ug/l	975.10	1.5	500000	45	P	
39	**K**	1	**1313.000**	ug/l	1,313.00	1.0	500000	45	A	
44	**Ca**	1	**9504.000**	ug/l	9,504.00	1.2	500000	45	A	
47	**Ti**	1	**7.056**	ug/l	7.06	10.4	5000	45	P	
51	**V**	1	**1.321**	ug/l	1.32	1.0	5000	45	P	
52	**Cr**	1	**0.260**	ug/l	0.26	7.5	5000	45	P	
57	**Fe**	1	**372.100**	ug/l	372.10	1.7	500000	74	P	
59	**Co**	1	**0.503**	ug/l	0.50	1.8	5000	45	P	
60	**Ni**	1	**1.222**	ug/l	1.22	5.1	5000	74	P	
63	**Cu**	1	**5.899**	ug/l	5.90	0.9	5000	74	P	
66	**Zn**	1	**14.570**	ug/l	14.57	0.7	5000	74	P	
78	**Se**	1	**0.174**	ug/l	0.17	41.3	5000	74	P	
88	**Sr**	1	**79.780**	ug/l	79.78	1.7	5000	74	M	
95	**Mo**	1	**0.537**	ug/l	0.54	9.5	5000	103	P	
109	**Ag**	1	**0.117**	ug/l	0.12	8.7	200	103	P	
111	**Cd**	1	**0.268**	ug/l	0.27	2.9	5000	103	P	
118	**Sn**	1	**0.304**	ug/l	0.30	2.6	5000	103	P	
135	**Ba**	1	**12.910**	ug/l	12.91	0.9	5000	103	P	
200	**Hg**	1	**0.013**	ug/l	0.01	9.0	50	175	P	
205	**Tl**	1	**0.031**	ug/l	0.03	32.7	5000	175	P	
208	**Pb**	1	**0.905**	ug/l	0.90	1.2	5000	175	P	
238	**U**	1	**0.015**	ug/l	0.02	7.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	193773	0.61	240400	**80.6**	30	-	125	
45	Sc	1	2418893	1.33	2616000	**92.5**	30	-	125	
74	Ge	1	5442882	0.74	5524000	**98.5**	30	-	125	
103	Rh	1	7341833	2.09	7587000	**96.8**	30	-	125	
165	Ho	1	3263809	2.17	3139000	**104.0**	30	-	125	
175	Lu	1	2673449	0.92	2574000	**103.9**	30	-	125	
209	Bi	1	3256549	2.56	3148000	**103.4**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\099SMPL.D\099SMPL.D#
Date Acquired: Oct 18 2011 10:24 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29098-E-1-A Vial Number: 4206
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.013**	ug/l	0.01	44.3	5000	6	P	
23	**Na**	1	**27220.000**	ug/l	27,220.00	1.0	500000	45	A	
24	**Mg**	1	**2857.000**	ug/l	2,857.00	1.9	500000	45	A	
27	**Al**	1	**40.100**	ug/l	40.10	3.9	500000	45	P	
31	**P**	1	**220.700**	ug/l	220.70	2.1	500000	45	P	
39	**K**	1	**6819.000**	ug/l	6,819.00	1.6	500000	45	A	
44	**Ca**	1	**21890.000**	ug/l	21,890.00	0.6	500000	45	A	
47	**Ti**	1	**1.850**	ug/l	1.85	19.4	5000	45	P	
51	**V**	1	**0.581**	ug/l	0.58	2.4	5000	45	P	
52	**Cr**	1	**1.643**	ug/l	1.64	3.0	5000	45	P	
57	**Fe**	1	**1655.000**	ug/l	1,655.00	1.9	500000	74	P	
59	**Co**	1	**0.865**	ug/l	0.87	2.4	5000	45	P	
60	**Ni**	1	**12.030**	ug/l	12.03	1.7	5000	74	P	
63	**Cu**	1	**32.140**	ug/l	32.14	1.7	5000	74	P	
66	**Zn**	1	**192.100**	ug/l	192.10	1.6	5000	74	P	
78	**Se**	1	**0.225**	ug/l	0.22	36.7	5000	74	P	
88	**Sr**	1	**131.300**	ug/l	131.30	1.3	5000	74	A	
95	**Mo**	1	**11.780**	ug/l	11.78	1.0	5000	103	P	
109	**Ag**	1	**0.046**	ug/l	0.05	11.5	200	103	P	
111	**Cd**	1	**1.837**	ug/l	1.84	2.9	5000	103	P	
118	**Sn**	1	**1.003**	ug/l	1.00	4.9	5000	103	P	
135	**Ba**	1	**49.550**	ug/l	49.55	0.9	5000	103	P	
200	**Hg**	1	**4.393**	ug/l	4.39	3.1	50	175	P	
205	**Tl**	1	**0.025**	ug/l	0.03	19.7	5000	175	P	
208	**Pb**	1	**10.730**	ug/l	10.73	1.8	5000	175	P	
238	**U**	1	**0.040**	ug/l	0.04	8.1	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	187707	1.13	240400	**78.1**	30	-	125	
45	Sc	1	2463674	0.67	2616000	**94.2**	30	-	125	
74	Ge	1	5408673	1.29	5524000	**97.9**	30	-	125	
103	Rh	1	7171908	0.31	7587000	**94.5**	30	-	125	
165	Ho	1	3189584	1.37	3139000	**101.6**	30	-	125	
175	Lu	1	2659524	1.50	2574000	**103.3**	30	-	125	
209	Bi	1	3144064	2.39	3148000	**99.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\100SMPL.D\100SMPL.D#
Date Acquired: Oct 18 2011 10:28 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29079-B-1-A Vial Number: 4207
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.015**	ug/l	0.01	74.4	5000	6	P	
23	**Na**	1	**844.000**	ug/l	844.00	1.3	500000	45	A	
24	**Mg**	1	**320.700**	ug/l	320.70	2.2	500000	45	P	
27	**Al**	1	**202.500**	ug/l	202.50	3.5	500000	45	P	
31	**P**	1	**202.100**	ug/l	202.10	5.5	500000	45	P	
39	**K**	1	**378.300**	ug/l	378.30	3.6	500000	45	A	
44	**Ca**	1	**1941.000**	ug/l	1,941.00	1.7	500000	45	P	
47	**Ti**	1	**5.308**	ug/l	5.31	4.2	5000	45	P	
51	**V**	1	**0.952**	ug/l	0.95	7.0	5000	45	P	
52	**Cr**	1	**0.830**	ug/l	0.83	4.2	5000	45	P	
57	**Fe**	1	**204.000**	ug/l	204.00	1.4	500000	74	P	
59	**Co**	1	**0.162**	ug/l	0.16	7.9	5000	45	P	
60	**Ni**	1	**0.701**	ug/l	0.70	20.0	5000	74	P	
63	**Cu**	1	**4.399**	ug/l	4.40	2.6	5000	74	P	
66	**Zn**	1	**21.580**	ug/l	21.58	0.5	5000	74	P	
78	**Se**	1	**0.106**	ug/l	0.11	24.6	5000	74	P	
88	**Sr**	1	**9.258**	ug/l	9.26	1.0	5000	74	P	
95	**Mo**	1	**0.256**	ug/l	0.26	3.0	5000	103	P	
109	**Ag**	1	**0.013**	ug/l	0.01	8.6	200	103	P	
111	**Cd**	1	**0.417**	ug/l	0.42	6.6	5000	103	P	
118	**Sn**	1	**0.225**	ug/l	0.23	3.1	5000	103	P	
135	**Ba**	1	**3.791**	ug/l	3.79	3.8	5000	103	P	
200	**Hg**	1	**0.027**	ug/l	0.03	14.9	50	175	P	
205	**Tl**	1	**0.022**	ug/l	0.02	40.1	5000	175	P	
208	**Pb**	1	**3.668**	ug/l	3.67	3.6	5000	175	P	
238	**U**	1	**0.013**	ug/l	0.01	10.8	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	195698	1.19	240400	**81.4**	30	-	125	
45	Sc	1	2501278	2.66	2616000	**95.6**	30	-	125	
74	Ge	1	5499895	0.90	5524000	**99.6**	30	-	125	
103	Rh	1	7663163	1.41	7587000	**101.0**	30	-	125	
165	Ho	1	3289496	0.66	3139000	**104.8**	30	-	125	
175	Lu	1	2732561	1.98	2574000	**106.2**	30	-	125	
209	Bi	1	3325041	1.27	3148000	**105.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\101SMPL.D\101SMPL.D#
Date Acquired: Oct 18 2011 10:33 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29089-D-1-A Vial Number: 4208
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.008**	ug/l	0.01	57.3	5000	6	P	
23	Na	1	**5106.000**	ug/l	5,106.00	3.0	500000	45	A	
24	Mg	1	**4287.000**	ug/l	4,287.00	2.4	500000	45	A	
27	Al	1	**39.200**	ug/l	39.20	2.2	500000	45	P	
31	P	1	**196.400**	ug/l	196.40	1.7	500000	45	P	
39	K	1	**2372.000**	ug/l	2,372.00	2.1	500000	45	A	
44	Ca	1	**12490.000**	ug/l	12,490.00	1.9	500000	45	A	
47	Ti	1	**10.390**	ug/l	10.39	7.7	5000	45	P	
51	V	1	**2.412**	ug/l	2.41	1.9	5000	45	P	
52	Cr	1	**0.881**	ug/l	0.88	9.4	5000	45	P	
57	Fe	1	**150.100**	ug/l	150.10	2.9	500000	74	P	
59	Co	1	**0.167**	ug/l	0.17	2.6	5000	45	P	
60	Ni	1	**2.720**	ug/l	2.72	0.7	5000	74	P	
63	Cu	1	**2220.000**	ug/l	2,220.00	0.5	5000	74	A	
66	Zn	1	**101.300**	ug/l	101.30	0.2	5000	74	P	
78	Se	1	**-0.011**	ug/l	-0.01	620.0	5000	74	P	
88	Sr	1	**56.520**	ug/l	56.52	0.8	5000	74	P	
95	Mo	1	**2.243**	ug/l	2.24	2.5	5000	103	P	
109	Ag	1	**0.102**	ug/l	0.10	6.3	200	103	P	
111	Cd	1	**0.041**	ug/l	0.04	59.7	5000	103	P	
118	Sn	1	**0.623**	ug/l	0.62	4.0	5000	103	P	
135	Ba	1	**12.890**	ug/l	12.89	0.7	5000	103	P	
200	Hg	1	**0.029**	ug/l	0.03	8.1	50	175	P	
205	Tl	1	**0.011**	ug/l	0.01	69.6	5000	175	P	
208	Pb	1	**0.346**	ug/l	0.35	1.8	5000	175	P	
238	U	1	**0.881**	ug/l	0.88	4.0	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	189501	1.22	240400	**78.8**	30	-	125	
45	Sc	1	2461130	2.68	2616000	**94.1**	30	-	125	
74	Ge	1	5497800	0.18	5524000	**99.5**	30	-	125	
103	Rh	1	7367210	0.19	7587000	**97.1**	30	-	125	
165	Ho	1	3257398	1.09	3139000	**103.8**	30	-	125	
175	Lu	1	2692723	1.72	2574000	**104.6**	30	-	125	
209	Bi	1	3279450	2.81	3148000	**104.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\102SMPL.D\102SMPL.D#
Date Acquired: Oct 18 2011 10:38 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29122-B-1-A Vial Number: 4209
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.011**	ug/l	0.01	65.6	5000	6	P	
23	**Na**	1	**7028.000**	ug/l	7,028.00	0.5	500000	45	A	
24	**Mg**	1	**3136.000**	ug/l	3,136.00	1.9	500000	45	A	
27	**Al**	1	**40.180**	ug/l	40.18	5.1	500000	45	P	
31	**P**	1	**352.100**	ug/l	352.10	2.7	500000	45	P	
39	**K**	1	**2144.000**	ug/l	2,144.00	1.2	500000	45	A	
44	**Ca**	1	**9188.000**	ug/l	9,188.00	3.2	500000	45	A	
47	**Ti**	1	**1.734**	ug/l	1.73	1.5	5000	45	P	
51	**V**	1	**0.973**	ug/l	0.97	2.1	5000	45	P	
52	**Cr**	1	**1.150**	ug/l	1.15	1.1	5000	45	P	
57	**Fe**	1	**430.600**	ug/l	430.60	1.5	500000	74	P	
59	**Co**	1	**0.209**	ug/l	0.21	11.7	5000	45	P	
60	**Ni**	1	**1.368**	ug/l	1.37	5.7	5000	74	P	
63	**Cu**	1	**9.126**	ug/l	9.13	0.7	5000	74	P	
66	**Zn**	1	**51.500**	ug/l	51.50	1.7	5000	74	P	
78	**Se**	1	**0.000**	ug/l	0.00	2757.6	5000	74	P	
88	**Sr**	1	**52.540**	ug/l	52.54	1.7	5000	74	P	
95	**Mo**	1	**0.619**	ug/l	0.62	5.0	5000	103	P	
109	**Ag**	1	**0.006**	ug/l	0.01	47.3	200	103	P	
111	**Cd**	1	**0.155**	ug/l	0.16	10.0	5000	103	P	
118	**Sn**	1	**0.265**	ug/l	0.27	13.0	5000	103	P	
135	**Ba**	1	**9.538**	ug/l	9.54	5.4	5000	103	P	
200	**Hg**	1	**0.012**	ug/l	0.01	37.6	50	175	P	
205	**Tl**	1	**0.012**	ug/l	0.01	63.5	5000	175	P	
208	**Pb**	1	**0.618**	ug/l	0.62	5.5	5000	175	P	
238	**U**	1	**0.008**	ug/l	0.01	17.3	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	190462	0.28	240400	**79.2**	30	-	125	
45	Sc	1	2473174	1.69	2616000	**94.5**	30	-	125	
74	Ge	1	5466815	1.06	5524000	**99.0**	30	-	125	
103	Rh	1	7467189	2.03	7587000	**98.4**	30	-	125	
165	Ho	1	3285781	0.80	3139000	**104.7**	30	-	125	
175	Lu	1	2697212	1.52	2574000	**104.8**	30	-	125	
209	Bi	1	3237935	2.04	3148000	**102.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\103SMPL.D\103SMPL.D#
Date Acquired: Oct 18 2011 10:43 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**49.950**	ug/l	49.95	0.5	5000	6	P	
23	**Na**	1	**4602.000**	ug/l	4,602.00	1.5	500000	45	A	
24	**Mg**	1	**4594.000**	ug/l	4,594.00	2.1	500000	45	A	
27	**Al**	1	**462.300**	ug/l	462.30	1.4	500000	45	P	
31	**P**	1	**4525.000**	ug/l	4,525.00	1.9	500000	45	P	
39	**K**	1	**4800.000**	ug/l	4,800.00	0.7	500000	45	A	
44	**Ca**	1	**4836.000**	ug/l	4,836.00	1.1	500000	45	P	
47	**Ti**	1	**48.020**	ug/l	48.02	1.9	5000	45	P	
51	**V**	1	**48.580**	ug/l	48.58	1.4	5000	45	P	
52	**Cr**	1	**48.540**	ug/l	48.54	1.0	5000	45	P	
57	**Fe**	1	**4856.000**	ug/l	4,856.00	0.3	500000	74	A	
59	**Co**	1	**49.650**	ug/l	49.65	1.8	5000	45	P	
60	**Ni**	1	**46.570**	ug/l	46.57	1.6	5000	74	P	
63	**Cu**	1	**47.060**	ug/l	47.06	1.4	5000	74	P	
66	**Zn**	1	**49.800**	ug/l	49.80	1.4	5000	74	P	
78	**Se**	1	**47.980**	ug/l	47.98	1.8	5000	74	P	
88	**Sr**	1	**48.300**	ug/l	48.30	0.9	5000	74	P	
95	**Mo**	1	**48.160**	ug/l	48.16	0.7	5000	103	P	
109	**Ag**	1	**50.110**	ug/l	50.11	1.6	200	103	P	
111	**Cd**	1	**49.950**	ug/l	49.95	0.9	5000	103	P	
118	**Sn**	1	**49.450**	ug/l	49.45	1.8	5000	103	P	
135	**Ba**	1	**50.990**	ug/l	50.99	1.2	5000	103	P	
200	**Hg**	1	**2.346**	ug/l	2.35	2.7	50	175	P	
205	**Tl**	1	**49.750**	ug/l	49.75	3.4	5000	175	A	
208	**Pb**	1	**48.210**	ug/l	48.21	1.2	5000	175	P	
238	**U**	1	**48.460**	ug/l	48.46	1.6	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	188751	0.61	240400	**78.5**	30	-	125	
45	Sc	1	2475914	1.16	2616000	**94.6**	30	-	125	
74	Ge	1	5460685	1.07	5524000	**98.9**	30	-	125	
103	Rh	1	7347533	0.78	7587000	**96.8**	30	-	125	
165	Ho	1	3251074	0.59	3139000	**103.6**	30	-	125	
175	Lu	1	2723312	1.38	2574000	**105.8**	30	-	125	
209	Bi	1	3231282	1.63	3148000	**102.6**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\104SMPL.D\104SMPL.D#
Date Acquired: Oct 18 2011 10:48 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.005**	ug/l	0.00	24.0	5000	6	P	
23	**Na**	1	**0.527**	ug/l	0.53	404.0	500000	45	P	
24	**Mg**	1	**0.194**	ug/l	0.19	29.5	500000	45	P	
27	**Al**	1	**-0.254**	ug/l	-0.25	92.2	500000	45	P	
31	**P**	1	**-1.685**	ug/l	-1.69	88.3	500000	45	P	
39	**K**	1	**-4.119**	ug/l	-4.12	67.0	500000	45	P	
44	**Ca**	1	**-2.466**	ug/l	-2.47	20.7	500000	45	P	
47	**Ti**	1	**0.055**	ug/l	0.06	27.1	5000	45	P	
51	**V**	1	**-0.054**	ug/l	-0.05	17.1	5000	45	P	
52	**Cr**	1	**-0.003**	ug/l	0.00	256.2	5000	45	P	
57	**Fe**	1	**1.349**	ug/l	1.35	11.8	500000	74	P	
59	**Co**	1	**0.000**	ug/l	0.00	268.2	5000	45	P	
60	**Ni**	1	**-0.007**	ug/l	-0.01	57.0	5000	74	P	
63	**Cu**	1	**0.028**	ug/l	0.03	10.1	5000	74	P	
66	**Zn**	1	**-0.030**	ug/l	-0.03	33.3	5000	74	P	
78	**Se**	1	**-0.053**	ug/l	-0.05	140.2	5000	74	P	
88	**Sr**	1	**-0.004**	ug/l	0.00	144.6	5000	74	P	
95	**Mo**	1	**0.084**	ug/l	0.08	18.7	5000	103	P	
109	**Ag**	1	**0.001**	ug/l	0.00	100.9	200	103	P	
111	**Cd**	1	**0.004**	ug/l	0.00	38.2	5000	103	P	
118	**Sn**	1	**0.179**	ug/l	0.18	12.3	5000	103	P	
135	**Ba**	1	**0.001**	ug/l	0.00	791.0	5000	103	P	
200	**Hg**	1	**0.015**	ug/l	0.01	8.4	50	175	P	
205	**Tl**	1	**0.291**	ug/l	0.29	9.6	5000	175	P	
208	**Pb**	1	**0.010**	ug/l	0.01	117.9	5000	175	P	
238	**U**	1	**0.013**	ug/l	0.01	19.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	196828	0.90	240400	**81.9**	30	-	125	
45	Sc	1	2510997	2.91	2616000	**96.0**	30	-	125	
74	Ge	1	5616153	0.56	5524000	**101.7**	30	-	125	
103	Rh	1	7655151	0.35	7587000	**100.9**	30	-	125	
165	Ho	1	3311162	1.33	3139000	**105.5**	30	-	125	
175	Lu	1	2716182	1.08	2574000	**105.5**	30	-	125	
209	Bi	1	3330172	2.13	3148000	**105.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed

0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\105SMPL.D\105SMPL.D#
Date Acquired: Oct 18 2011 10:53 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29122-B-1-B MS Vial Number: 4301
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**105.600**	ug/l	105.60	1.0	5000	6	P	
23	**Na**	1	**16050.000**	ug/l	16,050.00	2.4	500000	45	A	
24	**Mg**	1	**12180.000**	ug/l	12,180.00	3.3	500000	45	A	
27	**Al**	1	**974.800**	ug/l	974.80	3.5	500000	45	A	
31	**P**	1	**9960.000**	ug/l	9,960.00	3.9	500000	45	M	
39	**K**	1	**11830.000**	ug/l	11,830.00	2.2	500000	45	A	
44	**Ca**	1	**18890.000**	ug/l	18,890.00	2.4	500000	45	A	
47	**Ti**	1	**100.800**	ug/l	100.80	3.6	5000	45	P	
51	**V**	1	**100.700**	ug/l	100.70	3.4	5000	45	A	
52	**Cr**	1	**100.600**	ug/l	100.60	2.0	5000	45	A	
57	**Fe**	1	**10000.000**	ug/l	10,000.00	1.7	500000	74	A	
59	**Co**	1	**101.600**	ug/l	101.60	1.9	5000	45	A	
60	**Ni**	1	**95.950**	ug/l	95.95	1.3	5000	74	P	
63	**Cu**	1	**105.800**	ug/l	105.80	0.5	5000	74	A	
66	**Zn**	1	**148.400**	ug/l	148.40	1.2	5000	74	P	
78	**Se**	1	**100.400**	ug/l	100.40	0.6	5000	74	P	
88	**Sr**	1	**150.000**	ug/l	150.00	1.4	5000	74	A	
95	**Mo**	1	**101.800**	ug/l	101.80	0.3	5000	103	P	
109	**Ag**	1	**101.300**	ug/l	101.30	1.0	200	103	A	
111	**Cd**	1	**104.200**	ug/l	104.20	0.8	5000	103	P	
118	**Sn**	1	**103.400**	ug/l	103.40	0.7	5000	103	P	
135	**Ba**	1	**115.600**	ug/l	115.60	0.4	5000	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	22.9	50	175	P	
205	**Tl**	1	**109.300**	ug/l	109.30	1.4	5000	175	A	
208	**Pb**	1	**99.760**	ug/l	99.76	2.2	5000	175	A	
238	**U**	1	**99.490**	ug/l	99.49	1.9	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	185230	0.73	240400	**77.1**	30	-	125	
45	Sc	1	2484485	3.06	2616000	**95.0**	30	-	125	
74	Ge	1	5449582	1.14	5524000	**98.7**	30	-	125	
103	Rh	1	7212272	0.25	7587000	**95.1**	30	-	125	
165	Ho	1	3255959	2.04	3139000	**103.7**	30	-	125	
175	Lu	1	2662645	1.23	2574000	**103.4**	30	-	125	
209	Bi	1	3081092	1.30	3148000	**97.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\106SMPL.D\106SMPL.D#
Date Acquired: Oct 18 2011 10:57 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29122-B-1-C MSD Vial Number: 4302
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**105.700**	ug/l	105.70	1.8	5000	6	P	
23	**Na**	1	**15960.000**	ug/l	15,960.00	2.3	500000	45	A	
24	**Mg**	1	**12460.000**	ug/l	12,460.00	3.2	500000	45	A	
27	**Al**	1	**963.800**	ug/l	963.80	2.3	500000	45	A	
31	**P**	1	**9637.000**	ug/l	9,637.00	0.9	500000	45	M	
39	**K**	1	**11820.000**	ug/l	11,820.00	1.2	500000	45	A	
44	**Ca**	1	**19010.000**	ug/l	19,010.00	0.6	500000	45	A	
47	**Ti**	1	**101.100**	ug/l	101.10	1.4	5000	45	P	
51	**V**	1	**102.700**	ug/l	102.70	1.2	5000	45	A	
52	**Cr**	1	**101.600**	ug/l	101.60	2.0	5000	45	A	
57	**Fe**	1	**9992.000**	ug/l	9,992.00	1.6	500000	74	A	
59	**Co**	1	**101.000**	ug/l	101.00	2.5	5000	45	A	
60	**Ni**	1	**96.140**	ug/l	96.14	1.6	5000	74	P	
63	**Cu**	1	**106.600**	ug/l	106.60	1.2	5000	74	A	
66	**Zn**	1	**147.400**	ug/l	147.40	1.7	5000	74	P	
78	**Se**	1	**100.300**	ug/l	100.30	1.0	5000	74	P	
88	**Sr**	1	**150.200**	ug/l	150.20	0.5	5000	74	A	
95	**Mo**	1	**101.400**	ug/l	101.40	1.2	5000	103	P	
109	**Ag**	1	**101.300**	ug/l	101.30	1.2	200	103	A	
111	**Cd**	1	**103.900**	ug/l	103.90	1.2	5000	103	P	
118	**Sn**	1	**102.700**	ug/l	102.70	1.4	5000	103	P	
135	**Ba**	1	**115.600**	ug/l	115.60	0.5	5000	103	P	
200	**Hg**	1	**0.015**	ug/l	0.02	32.4	50	175	P	
205	**Tl**	1	**107.200**	ug/l	107.20	1.6	5000	175	A	
208	**Pb**	1	**98.420**	ug/l	98.42	1.6	5000	175	A	
238	**U**	1	**97.680**	ug/l	97.68	1.9	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	186560	1.58	240400	**77.6**	30	-	125	
45	Sc	1	2471223	1.74	2616000	**94.5**	30	-	125	
74	Ge	1	5417206	1.19	5524000	**98.1**	30	-	125	
103	Rh	1	7201047	0.20	7587000	**94.9**	30	-	125	
165	Ho	1	3215740	0.66	3139000	**102.4**	30	-	125	
175	Lu	1	2689745	1.75	2574000	**104.5**	30	-	125	
209	Bi	1	3112887	1.41	3148000	**98.9**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\107SMPL.D\107SMPL.D#
Date Acquired: Oct 18 2011 11:02 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29122-B-2-A Vial Number: 4303
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.027**	ug/l	0.03	26.4	5000	6	P	
23	Na	1	**7066.000**	ug/l	7,066.00	3.3	500000	45	A	
24	Mg	1	**13500.000**	ug/l	13,500.00	1.7	500000	45	A	
27	Al	1	**231.900**	ug/l	231.90	1.8	500000	45	P	
31	P	1	**155.400**	ug/l	155.40	3.2	500000	45	P	
39	K	1	**2416.000**	ug/l	2,416.00	2.5	500000	45	A	
44	Ca	1	**19000.000**	ug/l	19,000.00	0.5	500000	45	A	
47	Ti	1	**11.350**	ug/l	11.35	3.2	5000	45	P	
51	V	1	**4.255**	ug/l	4.26	2.7	5000	45	P	
52	Cr	1	**1.615**	ug/l	1.62	3.9	5000	45	P	
57	Fe	1	**348.000**	ug/l	348.00	0.9	500000	74	P	
59	Co	1	**0.264**	ug/l	0.26	2.0	5000	45	P	
60	Ni	1	**0.848**	ug/l	0.85	4.0	5000	74	P	
63	Cu	1	**2.281**	ug/l	2.28	0.9	5000	74	P	
66	Zn	1	**11.030**	ug/l	11.03	1.4	5000	74	P	
78	Se	1	**0.128**	ug/l	0.13	15.0	5000	74	P	
88	Sr	1	**85.700**	ug/l	85.70	2.0	5000	74	A	
95	Mo	1	**0.726**	ug/l	0.73	3.6	5000	103	P	
109	Ag	1	**0.004**	ug/l	0.00	32.4	200	103	P	
111	Cd	1	**0.047**	ug/l	0.05	31.7	5000	103	P	
118	Sn	1	**0.647**	ug/l	0.65	12.6	5000	103	P	
135	Ba	1	**10.860**	ug/l	10.86	2.2	5000	103	P	
200	Hg	1	**0.009**	ug/l	0.01	14.4	50	175	P	
205	Tl	1	**0.138**	ug/l	0.14	19.1	5000	175	P	
208	Pb	1	**0.693**	ug/l	0.69	4.8	5000	175	P	
238	U	1	**0.258**	ug/l	0.26	1.0	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	184959	0.34	240400	**76.9**	30	-	125	
45	Sc	1	2492168	1.30	2616000	**95.3**	30	-	125	
74	Ge	1	5476550	1.20	5524000	**99.1**	30	-	125	
103	Rh	1	7205048	1.03	7587000	**95.0**	30	-	125	
165	Ho	1	3270696	0.47	3139000	**104.2**	30	-	125	
175	Lu	1	2666604	2.17	2574000	**103.6**	30	-	125	
209	Bi	1	3108681	1.82	3148000	**98.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\108SMPL.D\108SMPL.D#
Date Acquired: Oct 18 2011 11:07 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29122-B-3-A Vial Number: 4304
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.012**	ug/l	0.01	47.1	5000	6	P	
23	**Na**	1	**7852.000**	ug/l	7,852.00	2.7	500000	45	A	
24	**Mg**	1	**11350.000**	ug/l	11,350.00	1.9	500000	45	A	
27	**Al**	1	**23.460**	ug/l	23.46	4.3	500000	45	P	
31	**P**	1	**257.100**	ug/l	257.10	2.2	500000	45	P	
39	**K**	1	**2724.000**	ug/l	2,724.00	2.1	500000	45	A	
44	**Ca**	1	**20560.000**	ug/l	20,560.00	2.8	500000	45	A	
47	**Ti**	1	**1.615**	ug/l	1.62	8.0	5000	45	P	
51	**V**	1	**3.636**	ug/l	3.64	3.9	5000	45	P	
52	**Cr**	1	**0.996**	ug/l	1.00	4.2	5000	45	P	
57	**Fe**	1	**138.900**	ug/l	138.90	0.6	500000	74	P	
59	**Co**	1	**0.095**	ug/l	0.09	8.4	5000	45	P	
60	**Ni**	1	**0.420**	ug/l	0.42	6.2	5000	74	P	
63	**Cu**	1	**0.899**	ug/l	0.90	0.3	5000	74	P	
66	**Zn**	1	**7.157**	ug/l	7.16	1.8	5000	74	P	
78	**Se**	1	**0.052**	ug/l	0.05	35.5	5000	74	P	
88	**Sr**	1	**112.200**	ug/l	112.20	1.7	5000	74	A	
95	**Mo**	1	**0.655**	ug/l	0.65	2.6	5000	103	P	
109	**Ag**	1	**0.004**	ug/l	0.00	43.9	200	103	P	
111	**Cd**	1	**0.018**	ug/l	0.02	58.4	5000	103	P	
118	**Sn**	1	**0.346**	ug/l	0.35	5.8	5000	103	P	
135	**Ba**	1	**5.519**	ug/l	5.52	2.0	5000	103	P	
200	**Hg**	1	**0.006**	ug/l	0.01	69.6	50	175	P	
205	**Tl**	1	**0.051**	ug/l	0.05	32.6	5000	175	P	
208	**Pb**	1	**0.187**	ug/l	0.19	11.8	5000	175	P	
238	**U**	1	**0.293**	ug/l	0.29	0.9	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	183090	0.10	240400	**76.2**	30	-	125	
45	Sc	1	2436335	2.85	2616000	**93.1**	30	-	125	
74	Ge	1	5391798	0.02	5524000	**97.6**	30	-	125	
103	Rh	1	7107826	0.68	7587000	**93.7**	30	-	125	
165	Ho	1	3254150	0.42	3139000	**103.7**	30	-	125	
175	Lu	1	2695216	1.87	2574000	**104.7**	30	-	125	
209	Bi	1	3173547	2.63	3148000	**100.8**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\109SMPL.D\109SMPL.D#
Date Acquired: Oct 18 2011 11:12 pm Acq. Method: 00He_ALL.M
Sample Name: 580-29122-B-4-A Vial Number: 4305
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**0.062**	ug/l	0.06	30.2	5000	6	P	
23	**Na**	1	**93290.000**	ug/l	93,290.00	2.7	500000	45	A	
24	**Mg**	1	**9376.000**	ug/l	9,376.00	2.3	500000	45	A	
27	**Al**	1	**1739.000**	ug/l	1,739.00	1.0	500000	45	A	
31	**P**	1	**1717.000**	ug/l	1,717.00	1.8	500000	45	P	
39	**K**	1	**23500.000**	ug/l	23,500.00	3.0	500000	45	A	
44	**Ca**	1	**39070.000**	ug/l	39,070.00	2.0	500000	45	A	
47	**Ti**	1	**69.170**	ug/l	69.17	3.5	5000	45	P	
51	**V**	1	**7.268**	ug/l	7.27	2.5	5000	45	P	
52	**Cr**	1	**5.436**	ug/l	5.44	3.7	5000	45	P	
57	**Fe**	1	**3333.000**	ug/l	3,333.00	0.7	500000	74	A	
59	**Co**	1	**4.284**	ug/l	4.28	2.4	5000	45	P	
60	**Ni**	1	**6.439**	ug/l	6.44	2.0	5000	74	P	
63	**Cu**	1	**16.320**	ug/l	16.32	0.4	5000	74	P	
66	**Zn**	1	**129.000**	ug/l	129.00	0.6	5000	74	P	
78	**Se**	1	**0.242**	ug/l	0.24	32.0	5000	74	P	
88	**Sr**	1	**182.500**	ug/l	182.50	1.0	5000	74	A	
95	**Mo**	1	**1.842**	ug/l	1.84	2.6	5000	103	P	
109	**Ag**	1	**0.033**	ug/l	0.03	26.8	200	103	P	
111	**Cd**	1	**0.284**	ug/l	0.28	3.4	5000	103	P	
118	**Sn**	1	**0.371**	ug/l	0.37	3.3	5000	103	P	
135	**Ba**	1	**71.710**	ug/l	71.71	1.6	5000	103	P	
200	**Hg**	1	**0.016**	ug/l	0.02	22.4	50	175	P	
205	**Tl**	1	**0.067**	ug/l	0.07	10.1	5000	175	P	
208	**Pb**	1	**4.390**	ug/l	4.39	2.7	5000	175	P	
238	**U**	1	**0.125**	ug/l	0.13	2.6	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	181964	1.10	240400	**75.7**	30	-	125	
45	Sc	1	2398858	2.58	2616000	**91.7**	30	-	125	
74	Ge	1	5207539	0.26	5524000	**94.3**	30	-	125	
103	Rh	1	6815997	1.32	7587000	**89.8**	30	-	125	
165	Ho	1	3088778	0.56	3139000	**98.4**	30	-	125	
175	Lu	1	2565412	1.74	2574000	**99.7**	30	-	125	
209	Bi	1	2896444	2.22	3148000	**92.0**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\112SMPL.D\112SMPL.D#
Date Acquired: Oct 18 2011 11:26 pm Acq. Method: 00He_ALL.M
Sample Name: CCV Vial Number: 1104
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	*Corr. Conc*	RSD(%)	LDR	IS	P/A	Flag
9	**Be**	1	**50.330**	ug/l	50.33	0.7	5000	6	P	
23	**Na**	1	**4561.000**	ug/l	4,561.00	3.2	500000	45	A	
24	**Mg**	1	**4534.000**	ug/l	4,534.00	3.2	500000	45	A	
27	**Al**	1	**460.200**	ug/l	460.20	3.0	500000	45	P	
31	**P**	1	**4521.000**	ug/l	4,521.00	2.9	500000	45	P	
39	**K**	1	**4825.000**	ug/l	4,825.00	2.1	500000	45	A	
44	**Ca**	1	**4807.000**	ug/l	4,807.00	2.8	500000	45	P	
47	**Ti**	1	**47.770**	ug/l	47.77	3.1	5000	45	P	
51	**V**	1	**47.900**	ug/l	47.90	3.2	5000	45	P	
52	**Cr**	1	**48.490**	ug/l	48.49	3.0	5000	45	P	
57	**Fe**	1	**4725.000**	ug/l	4,725.00	1.0	500000	74	A	
59	**Co**	1	**49.100**	ug/l	49.10	3.2	5000	45	P	
60	**Ni**	1	**46.390**	ug/l	46.39	2.0	5000	74	P	
63	**Cu**	1	**46.910**	ug/l	46.91	1.7	5000	74	P	
66	**Zn**	1	**49.770**	ug/l	49.77	1.8	5000	74	P	
78	**Se**	1	**47.450**	ug/l	47.45	1.2	5000	74	P	
88	**Sr**	1	**48.220**	ug/l	48.22	1.0	5000	74	P	
95	**Mo**	1	**46.980**	ug/l	46.98	0.7	5000	103	P	
109	**Ag**	1	**49.260**	ug/l	49.26	0.5	200	103	P	
111	**Cd**	1	**49.080**	ug/l	49.08	0.2	5000	103	P	
118	**Sn**	1	**48.650**	ug/l	48.65	1.2	5000	103	P	
135	**Ba**	1	**50.320**	ug/l	50.32	1.0	5000	103	P	
200	**Hg**	1	**2.361**	ug/l	2.36	2.3	50	175	P	
205	**Tl**	1	**51.120**	ug/l	51.12	1.9	5000	175	A	
208	**Pb**	1	**48.750**	ug/l	48.75	1.4	5000	175	P	
238	**U**	1	**50.010**	ug/l	50.01	2.6	5000	175	A	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	187638	1.09	240400	**78.1**	30	-	125	
45	Sc	1	2460641	2.83	2616000	**94.1**	30	-	125	
74	Ge	1	5421573	1.38	5524000	**98.1**	30	-	125	
103	Rh	1	7397883	0.40	7587000	**97.5**	30	-	125	
165	Ho	1	3275481	1.87	3139000	**104.3**	30	-	125	
175	Lu	1	2676629	1.02	2574000	**104.0**	30	-	125	
209	Bi	1	3217258	1.42	3148000	**102.2**	30	-	125	

Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

TA Seattle Sample Report 200.8/6020 7500ce ICPMS

Data File: C:\ICPCHEM\1\DATA\101811PM.B\113SMPL.D\113SMPL.D#
Date Acquired: Oct 18 2011 11:31 pm Acq. Method: 00He_ALL.M
Sample Name: CCB Vial Number: 1306
Misc Info: STDS&RL&CCV 00008,ICV 00010,ICSA&ICSAB 101711

Current Method: C:\ICPCHEM\1\METHODS\101811.M Operator: FCW ICP-MS ID#SEA44
Calibration File: C:\ICPCHEM\1\CALIB\101811.C
Last Cal. Update: Oct 19 2011 09:13 am
ISTD Ref File : C:\ICPCHEM\1\DATA\101811PM.B\004CALB.D\004CALB.D#

Tune #	Name
1	ı\1\7500\he.u
2	ᵓCHEM\1\7500\
3	ᵓCHEM\1\7500\

Dilution Factor: **1.00** Final Dil Factor: **1.00**

QC Elements

Element		T#	Conc.	Units	Corr. Conc	RSD(%)	LDR	IS	P/A	Flag
9	Be	1	**0.009**	ug/l	0.01	66.3	5000	6	P	
23	Na	1	**0.120**	ug/l	0.12	872.1	500000	45	P	
24	Mg	1	**0.228**	ug/l	0.23	27.6	500000	45	P	
27	Al	1	**-0.501**	ug/l	-0.50	35.3	500000	45	P	
31	P	1	**-2.387**	ug/l	-2.39	15.5	500000	45	P	
39	K	1	**-4.541**	ug/l	-4.54	26.2	500000	45	P	
44	Ca	1	**-2.441**	ug/l	-2.44	6.8	500000	45	P	
47	Ti	1	**0.038**	ug/l	0.04	19.7	5000	45	P	
51	V	1	**-0.055**	ug/l	-0.06	42.4	5000	45	P	
52	Cr	1	**-0.007**	ug/l	-0.01	21.2	5000	45	P	
57	Fe	1	**1.256**	ug/l	1.26	42.2	500000	74	P	
59	Co	1	**0.001**	ug/l	0.00	91.5	5000	45	P	
60	Ni	1	**0.000**	ug/l	0.00	312.6	5000	74	P	
63	Cu	1	**0.011**	ug/l	0.01	18.2	5000	74	P	
66	Zn	1	**-0.033**	ug/l	-0.03	63.7	5000	74	P	
78	Se	1	**-0.002**	ug/l	0.00	1339.9	5000	74	P	
88	Sr	1	**-0.002**	ug/l	0.00	217.9	5000	74	P	
95	Mo	1	**0.141**	ug/l	0.14	10.8	5000	103	P	
109	Ag	1	**0.000**	ug/l	0.00	243.8	200	103	P	
111	Cd	1	**-0.001**	ug/l	0.00	1364.2	5000	103	P	
118	Sn	1	**0.193**	ug/l	0.19	20.2	5000	103	P	
135	Ba	1	**0.012**	ug/l	0.01	17.3	5000	103	P	
200	Hg	1	**0.014**	ug/l	0.01	12.6	50	175	P	
205	Tl	1	**0.283**	ug/l	0.28	9.1	5000	175	P	
208	Pb	1	**0.013**	ug/l	0.01	23.4	5000	175	P	
238	U	1	**0.019**	ug/l	0.02	10.2	5000	175	P	

ISTD Elements

IS	Mass	Tune	CPS Mean	RSD(%)	Ref Value	Rec(%)	QC Range(%)			Flag
6	Li	1	192189	1.13	240400	**79.9**	30	-	125	
45	Sc	1	2492825	1.35	2616000	**95.3**	30	-	125	
74	Ge	1	5465540	0.45	5524000	**98.9**	30	-	125	
103	Rh	1	7618810	0.83	7587000	**100.4**	30	-	125	
165	Ho	1	3287477	0.30	3139000	**104.7**	30	-	125	
175	Lu	1	2717588	0.95	2574000	**105.6**	30	-	125	
209	Bi	1	3324020	2.11	3148000	**105.6**	30	-	125	

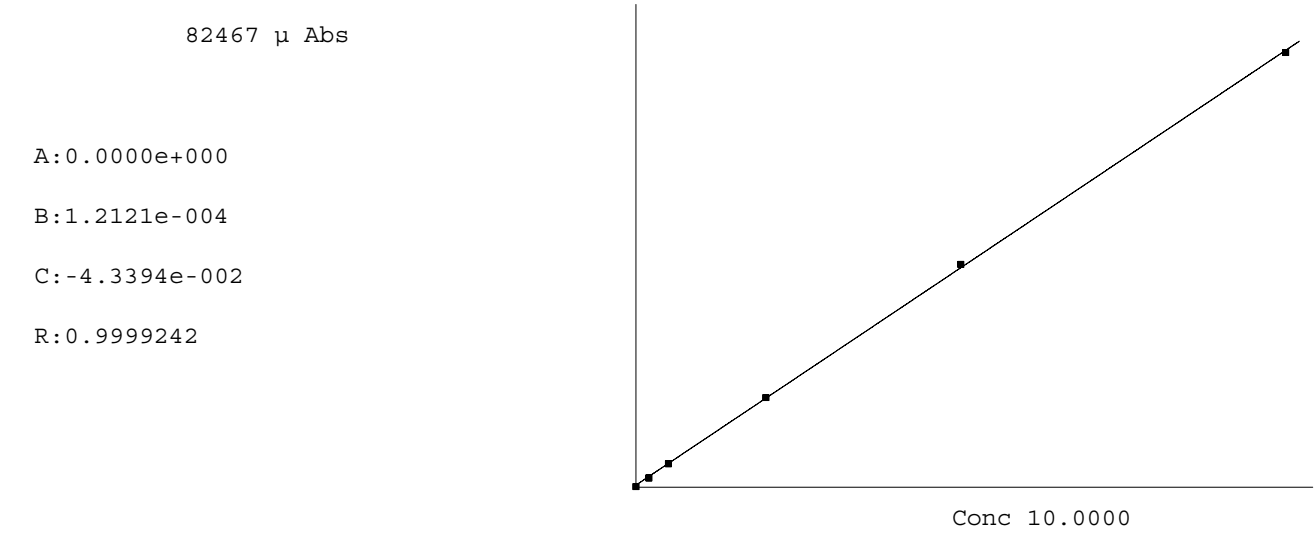
Analytes: **Pass** **ISTD:** **Pass**

0 :Element Failures **0** :Max. Number of Failures Allowed
0 :ISTD Failures **0** :Max. Number of ISTD Failures Allowed

97935-HG

Method: Hg Operator: Admin Date of Analysis: 18 Oct 2011 14:23:03

Sample ID	Mean	Units	RSD	Date	Extended ID	Seq ID	Curve Type	Type	Method	Stnd Conc
STD 0	127	ug/l	0.370	18 Oct 2011 14:29:38		4197	-	Std	Hg	0.000
STD 1	1779	ug/l	0.279	18 Oct 2011 14:31:36		4198	-	Std	Hg	0.200
STD 2	4452	ug/l	0.239	18 Oct 2011 14:33:34		4199	-	Std	Hg	0.500
STD 3	17033	ug/l	0.508	18 Oct 2011 14:35:32		4200	-	Std	Hg	2.000
STD 4	42319	ug/l	0.114	18 Oct 2011 14:37:30		4201	-	Std	Hg	5.000
STD 5	82467	ug/l	0.174	18 Oct 2011 14:39:29		4202	-	Std	Hg	10.000



ICV	4.099	ug/l	0.336	18 Oct 2011 14:41:29		4203	Linear	CK STND	Hg	-
ICB	-0.073	ug/l	-0.677	18 Oct 2011 14:43:32		4204	Linear	CK STND	Hg	-
RL	0.155	ug/l	0.259	18 Oct 2011 14:45:32		4205	Linear	CK STND	Hg	-
CCV	5.100	ug/l	0.542	18 Oct 2011 14:47:30		4206	Linear	CK STND	Hg	-
CCB	-0.075	ug/l	-0.773	18 Oct 2011 14:49:27		4207	Linear	CK STND	Hg	-
MB 580-97935/21-A	< 0.000	ug/l	-0.202	18 Oct 2011 14:51:27	TAC103 FCW 97935	4208	Linear	SMPL	Hg	-
LCS 580-97935/22-A	2.084	ug/l	0.321	18 Oct 2011 14:53:24	TAC103 FCW 97935	4209	Linear	SMPL	Hg	-
LCSD 580-97935/23-A	1.958	ug/l	0.650	18 Oct 2011 14:55:20	TAC103 FCW 97935	4210	Linear	SMPL	Hg	-
LCSSRM 580-97935/24-A	3.544	ug/l	0.713	18 Oct 2011 14:57:18	TAC103 FCW 97935 10X	4211	Linear	SMPL	Hg	-
580-29110-A-1-A	0.369	ug/l	0.041	18 Oct 2011 14:59:16	TAC103 FCW 97935 10X	4212	Linear	SMPL	Hg	-
580-29110-A-1-B DU	0.411	ug/l	0.483	18 Oct 2011 15:01:15	TAC103 FCW 97935 10X	4213	Linear	SMPL	Hg	-
580-29110-A-1-C MS	0.569	ug/l	0.114	18 Oct 2011 15:03:12	TAC103 FCW 97935 10X	4214	Linear	SMPL	Hg	-
580-29110-A-1-D MSD	0.586	ug/l	0.103	18 Oct 2011 15:05:09	TAC103 FCW 97935 10X	4215	Linear	SMPL	Hg	-
580-29110-A-2-A	0.223	ug/l	0.135	18 Oct 2011 15:07:06	TAC103 FCW 97935 10X	4216	Linear	SMPL	Hg	-
580-29110-A-3-A	1.313	ug/l	0.243	18 Oct 2011 15:09:04	TAC103 FCW 97935 10X	4217	Linear	SMPL	Hg	-
CCV	5.137	ug/l	0.444	18 Oct 2011 15:11:02		4218	Linear	CK STND	Hg	-
CCB	-0.079	ug/l	-0.441	18 Oct 2011 15:13:00		4219	Linear	CK STND	Hg	-
580-29110-A-4-A	0.868	ug/l	0.618	18 Oct 2011 15:15:00	TAC103 FCW 97935 10X	4220	Linear	SMPL	Hg	-
580-29110-A-6-A	0.243	ug/l	0.559	18 Oct 2011 15:18:58	TAC103 FCW 97935 10X	4221	Linear	SMPL	Hg	-
580-29110-A-7-A	1.106	ug/l	0.166	18 Oct 2011 15:20:55	TAC103 FCW 97935 10X	4222	Linear	SMPL	Hg	-
580-29110-A-9-A	0.767	ug/l	0.427	18 Oct 2011 15:24:50	TAC103 FCW 97935 10X	4223	Linear	SMPL	Hg	-
580-29110-A-10-A	0.939	ug/l	0.330	18 Oct 2011 15:26:47	TAC103 FCW 97935 10X	4224	Linear	SMPL	Hg	-
580-29110-A-11-A	1.583	ug/l	0.396	18 Oct 2011 15:28:45	TAC103 FCW 97935 10X	4225	Linear	SMPL	Hg	-
580-29110-A-12-A	1.467	ug/l	0.262	18 Oct 2011 15:30:43	TAC103 FCW 97935 10X	4226	Linear	SMPL	Hg	-
580-29110-A-13-A	0.826	ug/l	0.114	18 Oct 2011 15:32:42	TAC103 FCW 97935 10X	4227	Linear	SMPL	Hg	-
CCV	5.060	ug/l	0.393	18 Oct 2011 15:34:40		4228	Linear	CK STND	Hg	-
CCB	-0.077	ug/l	-0.411	18 Oct 2011 15:36:37		4229	Linear	CK STND	Hg	-
580-29110-A-14-A	< 0.000	ug/l	-4.360	18 Oct 2011 15:38:37	TAC103 FCW 97935 10X	4230	Linear	SMPL	Hg	-
580-29110-A-16-A	0.336	ug/l	0.326	18 Oct 2011 15:42:32	TAC103 FCW 97935 10X	4231	Linear	SMPL	Hg	-
580-29110-A-17-A	0.767	ug/l	0.336	18 Oct 2011 15:44:30	TAC103 FCW 97935 10X	4232	Linear	SMPL	Hg	-
CCV	5.045	ug/l	0.297	18 Oct 2011 15:46:28		4233	Linear	CK STND	Hg	-
CCB	-0.074	ug/l	-0.204	18 Oct 2011 15:48:25		4234	Linear	CK STND	Hg	-
MB 580-97946/20-A	< 0.000	ug/l	-0.807	18 Oct 2011 15:50:25	TAC103 FCW 97946	4235	Linear	SMPL	Hg	-
LCS 580-97946/21-A	2.035	ug/l	0.265	18 Oct 2011 15:52:22	TAC103 FCW 97946	4236	Linear	SMPL	Hg	-
LCSD 580-97946/22-A	1.992	ug/l	0.342	18 Oct 2011 15:54:19	TAC103 FCW 97946 10X	4237	Linear	SMPL	Hg	-
LCSSRM 580-97946/23-A	3.458	ug/l	0.281	18 Oct 2011 15:56:18	TAC103 FCW 97946 10X	4238	Linear	SMPL	Hg	-
CCV	5.205	ug/l	0.255	18 Oct 2011 15:58:17		4239	Linear	CK STND	Hg	-
CCB	-0.073	ug/l	-0.208	18 Oct 2011 16:00:16		4240	Linear	CK STND	Hg	-
580-29110-A-18-A	1.415	ug/l	0.137	18 Oct 2011 16:02:16	TAC103 FCW 97946 10X	4241	Linear	SMPL	Hg	-
580-29110-A-18-B DU	1.360	ug/l	0.164	18 Oct 2011 16:04:13	TAC103 FCW 97946 10X	4242	Linear	SMPL	Hg	-
580-29110-A-18-C MS	1.612	ug/l	0.067	18 Oct 2011 16:06:12	TAC103 FCW 97946 10X	4243	Linear	SMPL	Hg	-
580-29110-A-18-D MSD	1.629	ug/l	0.290	18 Oct 2011 16:08:11	TAC103 FCW 97946 10X	4244	Linear	SMPL	Hg	-
580-29110-A-19-A	1.323	ug/l	0.086	18 Oct 2011 16:10:10	TAC103 FCW 97946 10X	4245	Linear	SMPL	Hg	-
580-29110-A-21-A	0.355	ug/l	0.349	18 Oct 2011 16:14:08	TAC103 FCW 97946 10X	4246	Linear	SMPL	Hg	-
580-29110-A-22-A	0.340	ug/l	0.050	18 Oct 2011 16:16:06	TAC103 FCW 97946 10X	4247	Linear	SMPL	Hg	-
CCV	5.200	ug/l	0.306	18 Oct 2011 16:20:01		4248	Linear	CK STND	Hg	-
CCB	-0.068	ug/l	-0.224	18 Oct 2011 16:21:58		4249	Linear	CK STND	Hg	-
580-29266-A-1-J	0.615	ug/l	0.202	18 Oct 2011 16:25:55	TAC103 FCW 97946	4250	Linear	SMPL	Hg	-
580-29266-A-2-F	0.804	ug/l	0.263	18 Oct 2011 16:28:06	TAC103 FCW 97946	4251	Linear	SMPL	Hg	-
580-29266-A-3-F	0.344	ug/l	0.060	18 Oct 2011 16:30:04	TAC103 FCW 97946	4252	Linear	SMPL	Hg	-
580-29266-A-4-F	0.239	ug/l	0.369	18 Oct 2011 16:32:01	TAC103 FCW 97946	4253	Linear	SMPL	Hg	-
580-29266-A-6-H	0.002	ug/l	8.708	18 Oct 2011 16:33:58	TAC103 FCW 97946	4254	Linear	SMPL	Hg	-
580-28958-A-1-C	1.029	ug/l	0.400	18 Oct 2011 16:35:55	TAC103 FCW 97946	4255	Linear	SMPL	Hg	-
580-28958-A-3-C	< 0.000	ug/l	-0.352	18 Oct 2011 16:37:52	TAC103 FCW 97946	4256	Linear	SMPL	Hg	-
580-28958-A-4-C	< 0.000	ug/l	-0.321	18 Oct 2011 16:39:52	TAC103 FCW 97946	4257	Linear	SMPL	Hg	-
580-28958-A-2-C	< 0.000	ug/l	-0.602	18 Oct 2011 16:41:50	TAC103 FCW 97946	4258	Linear	SMPL	Hg	-
CCV	4.850	ug/l	0.710	18 Oct 2011 16:43:48		4259	Linear	CK STND	Hg	-
CCB	-0.076	ug/l	-0.417	18 Oct 2011 16:45:44		4260	Linear	CK STND	Hg	-
580-29110-A-5-A	1.230	ug/l	0.343	18 Oct 2011 16:47:44	1X	4261	Linear	SMPL	Hg	-
580-29110-A-8-A	0.726	ug/l	0.071	18 Oct 2011 16:49:42	1X	4262	Linear	SMPL	Hg	-
580-29110-A-15-A	0.877	ug/l	0.470	18 Oct 2011 16:51:41	1X	4263	Linear	SMPL	Hg	-
580-29110-A-20-A	2.377	ug/l	0.294	18 Oct 2011 16:53:39	1X	4264	Linear	SMPL	Hg	-
580-29110-A-23-A	1.768	ug/l	0.710	18 Oct 2011 16:55:36	1X	4265	Linear	SMPL	Hg	-
580-29145-A-4-A	0.806	ug/l	0.227	18 Oct 2011 16:57:35	20X	4266	Linear	SMPL	Hg	-
CCV	5.147	ug/l	0.285	18 Oct 2011 16:59:34		4267	Linear	CK STND	Hg	-
CCB	-0.076	ug/l	-0.272	18 Oct 2011 17:01:31		4268	Linear	CK STND	Hg	-

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97966 Batch Start Date: 10/18/11 13:48 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 15:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-29110-A-1	PUSHER S-1 0-6	3050B, 6010B	T	1.1285 g	50 mL				
580-29110-A-1 DU	PUSHER S-1 0-6	3050B, 6010B	T	1.0254 g	50 mL				
580-29110-A-1 MS	PUSHER S-1 0-6	3050B, 6010B	T	1.0301 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-29110-A-1 MSD	PUSHER S-1 0-6	3050B, 6010B	T	1.1076 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-29110-A-2	PUSHER S-1 6-12	3050B, 6010B	T	1.0501 g	50 mL				
580-29110-A-3	PUSHER S-2 0-6	3050B, 6010B	T	1.0624 g	50 mL				
580-29110-A-4	PUSHER S-2 6-12	3050B, 6010B	T	1.1030 g	50 mL				
580-29110-A-5	PUSHER S-3 0-6	3050B, 6010B	T	1.0223 g	50 mL				
580-29110-A-6	PUSHER S-3 6-12	3050B, 6010B	T	1.0642 g	50 mL				
580-29110-A-7	IBEX S1 0-6	3050B, 6010B	T	1.1899 g	50 mL				
580-29110-A-8	IBEX S2 0-6	3050B, 6010B	T	1.1685 g	50 mL				
580-29110-A-9	O+B UPPER S1 0-6	3050B, 6010B	T	1.0508 g	50 mL				
580-29110-A-10	O+B UPPER S2 0-6	3050B, 6010B	T	1.1281 g	50 mL				
580-29110-A-11	O+B UPPER S3 0-6	3050B, 6010B	T	1.2370 g	50 mL				
580-29110-A-12	O+B LOWER S1 0-6	3050B, 6010B	T	1.2905 g	50 mL				
580-29110-A-13	O+B LOWER S2 0-6	3050B, 6010B	T	1.2290 g	50 mL				
580-29110-A-14	76-7	3050B, 6010B	T	1.1000 g	50 mL				
580-29110-A-15	76-8	3050B, 6010B	T	1.0141 g	50 mL				
580-29110-A-16	CONGRESS S1 0-6	3050B, 6010B	T	1.0780 g	50 mL				
580-29110-A-17	CONGRESS S1 6-12	3050B, 6010B	T	1.0430 g	50 mL				
MB 580-97966/21		3050B, 6010B		1.0 g	50 mL				
LCS 580-97966/22		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-97966/23		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-97966/24		3050B, 6010B		0.5093 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	SRMsolid 00006					
580-29110-A-1	PUSHER S-1 0-6	3050B, 6010B	T						
580-29110-A-1 DU	PUSHER S-1 0-6	3050B, 6010B	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97966 Batch Start Date: 10/18/11 13:48 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 15:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	SRMsolid 00006					
580-29110-A-1 MS	PUSHER S-1 0-6	3050B, 6010B	T						
580-29110-A-1 MSD	PUSHER S-1 0-6	3050B, 6010B	T						
580-29110-A-2	PUSHER S-1 6-12	3050B, 6010B	T						
580-29110-A-3	PUSHER S-2 0-6	3050B, 6010B	T						
580-29110-A-4	PUSHER S-2 6-12	3050B, 6010B	T						
580-29110-A-5	PUSHER S-3 0-6	3050B, 6010B	T						
580-29110-A-6	PUSHER S-3 6-12	3050B, 6010B	T						
580-29110-A-7	IBEX S1 0-6	3050B, 6010B	T						
580-29110-A-8	IBEX S2 0-6	3050B, 6010B	T						
580-29110-A-9	O+B UPPER S1 0-6	3050B, 6010B	T						
580-29110-A-10	O+B UPPER S2 0-6	3050B, 6010B	T						
580-29110-A-11	O+B UPPER S3 0-6	3050B, 6010B	T						
580-29110-A-12	O+B LOWER S1 0-6	3050B, 6010B	T						
580-29110-A-13	O+B LOWER S2 0-6	3050B, 6010B	T						
580-29110-A-14	76-7	3050B, 6010B	T						
580-29110-A-15	76-8	3050B, 6010B	T						
580-29110-A-16	CONGRESS S1 0-6	3050B, 6010B	T						
580-29110-A-17	CONGRESS S1 6-12	3050B, 6010B	T						
MB 580-97966/21		3050B, 6010B							
LCS 580-97966/22		3050B, 6010B							
LCSD 580-97966/23		3050B, 6010B							
LCSSRM 580-97966/24		3050B, 6010B		0.5093 g					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97966 Batch Start Date: 10/18/11 13:48 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 15:20

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	807509
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	811835
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97974 Batch Start Date: 10/18/11 14:31 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 16:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-29110-A-18	PORTLAND 2 S1 0-6	3050B, 6010B	T	1.0588 g	50 mL				
580-29110-A-18 DU	PORTLAND 2 S1 0-6	3050B, 6010B	T	1.0200 g	50 mL				
580-29110-A-18 MS	PORTLAND 2 S1 0-6	3050B, 6010B	T	1.0792 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-29110-A-18 MSD	PORTLAND 2 S1 0-6	3050B, 6010B	T	1.0447 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-29110-A-19	PORTLAND 2 S1 6-12	3050B, 6010B	T	1.1540 g	50 mL				
580-29110-A-20	PORTLAND 2 S2 0-6	3050B, 6010B	T	1.0544 g	50 mL				
580-29110-A-21	CONGRESS S2 0-6	3050B, 6010B	T	1.0595 g	50 mL				
580-29110-A-22	CONGRESS S2 6-12	3050B, 6010B	T	1.0392 g	50 mL				
580-29110-A-23	PORTLAND 2 S2 6-12	3050B, 6010B	T	1.0896 g	50 mL				
MB 580-97974/20		3050B, 6010B		1.0 g	50 mL				
LCS 580-97974/21		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-97974/22		3050B, 6010B		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-97974/23		3050B, 6010B		0.4964 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-29110-A-18	PORTLAND 2 S1 0-6	3050B, 6010B	T						
580-29110-A-18 DU	PORTLAND 2 S1 0-6	3050B, 6010B	T						
580-29110-A-18 MS	PORTLAND 2 S1 0-6	3050B, 6010B	T	1 mL					
580-29110-A-18 MSD	PORTLAND 2 S1 0-6	3050B, 6010B	T	1 mL					
580-29110-A-19	PORTLAND 2 S1 6-12	3050B, 6010B	T						
580-29110-A-20	PORTLAND 2 S2 0-6	3050B, 6010B	T						
580-29110-A-21	CONGRESS S2 0-6	3050B, 6010B	T						
580-29110-A-22	CONGRESS S2 6-12	3050B, 6010B	T						
580-29110-A-23	PORTLAND 2 S2 6-12	3050B, 6010B	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97974 Batch Start Date: 10/18/11 14:31 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 16:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
MB 580-97974/20		3050B, 6010B							
LCS 580-97974/21		3050B, 6010B		1 mL					
LCSD 580-97974/22		3050B, 6010B		1 mL					
LCSSRM 580-97974/23		3050B, 6010B			0.4964 g				

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	807509
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	811835
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97966 Batch Start Date: 10/18/11 13:48 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 15:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-29110-A-1	PUSHER S-1 0-6	3050B, 6020	T	1.1285 g	50 mL				
580-29110-A-1 DU	PUSHER S-1 0-6	3050B, 6020	T	1.0254 g	50 mL				
580-29110-A-1 MS	PUSHER S-1 0-6	3050B, 6020	T	1.0301 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-29110-A-1 MSD	PUSHER S-1 0-6	3050B, 6020	T	1.1076 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-29110-A-2	PUSHER S-1 6-12	3050B, 6020	T	1.0501 g	50 mL				
580-29110-A-3	PUSHER S-2 0-6	3050B, 6020	T	1.0624 g	50 mL				
580-29110-A-4	PUSHER S-2 6-12	3050B, 6020	T	1.1030 g	50 mL				
580-29110-A-5	PUSHER S-3 0-6	3050B, 6020	T	1.0223 g	50 mL				
580-29110-A-6	PUSHER S-3 6-12	3050B, 6020	T	1.0642 g	50 mL				
580-29110-A-7	IBEX S1 0-6	3050B, 6020	T	1.1899 g	50 mL				
580-29110-A-8	IBEX S2 0-6	3050B, 6020	T	1.1685 g	50 mL				
580-29110-A-9	O+B UPPER S1 0-6	3050B, 6020	T	1.0508 g	50 mL				
580-29110-A-10	O+B UPPER S2 0-6	3050B, 6020	T	1.1281 g	50 mL				
580-29110-A-11	O+B UPPER S3 0-6	3050B, 6020	T	1.2370 g	50 mL				
580-29110-A-12	O+B LOWER S1 0-6	3050B, 6020	T	1.2905 g	50 mL				
580-29110-A-13	O+B LOWER S2 0-6	3050B, 6020	T	1.2290 g	50 mL				
580-29110-A-14	76-7	3050B, 6020	T	1.1000 g	50 mL				
580-29110-A-15	76-8	3050B, 6020	T	1.0141 g	50 mL				
580-29110-A-16	CONGRESS S1 0-6	3050B, 6020	T	1.0780 g	50 mL				
580-29110-A-17	CONGRESS S1 6-12	3050B, 6020	T	1.0430 g	50 mL				
MB 580-97966/21		3050B, 6020		1.0 g	50 mL				
LCS 580-97966/22		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-97966/23		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-97966/24		3050B, 6020		0.5093 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	SRMsolid 00006					
580-29110-A-1	PUSHER S-1 0-6	3050B, 6020	T						
580-29110-A-1 DU	PUSHER S-1 0-6	3050B, 6020	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97966 Batch Start Date: 10/18/11 13:48 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 15:20

Lab Sample ID	Client Sample ID	Method Chain	Basis	SRMsolid 00006					
580-29110-A-1 MS	PUSHER S-1 0-6	3050B, 6020	T						
580-29110-A-1 MSD	PUSHER S-1 0-6	3050B, 6020	T						
580-29110-A-2	PUSHER S-1 6-12	3050B, 6020	T						
580-29110-A-3	PUSHER S-2 0-6	3050B, 6020	T						
580-29110-A-4	PUSHER S-2 6-12	3050B, 6020	T						
580-29110-A-5	PUSHER S-3 0-6	3050B, 6020	T						
580-29110-A-6	PUSHER S-3 6-12	3050B, 6020	T						
580-29110-A-7	IBEX S1 0-6	3050B, 6020	T						
580-29110-A-8	IBEX S2 0-6	3050B, 6020	T						
580-29110-A-9	O+B UPPER S1 0-6	3050B, 6020	T						
580-29110-A-10	O+B UPPER S2 0-6	3050B, 6020	T						
580-29110-A-11	O+B UPPER S3 0-6	3050B, 6020	T						
580-29110-A-12	O+B LOWER S1 0-6	3050B, 6020	T						
580-29110-A-13	O+B LOWER S2 0-6	3050B, 6020	T						
580-29110-A-14	76-7	3050B, 6020	T						
580-29110-A-15	76-8	3050B, 6020	T						
580-29110-A-16	CONGRESS S1 0-6	3050B, 6020	T						
580-29110-A-17	CONGRESS S1 6-12	3050B, 6020	T						
MB 580-97966/21		3050B, 6020							
LCS 580-97966/22		3050B, 6020							
LCSD 580-97966/23		3050B, 6020							
LCSSRM 580-97966/24		3050B, 6020		0.5093 g					

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97966 Batch Start Date: 10/18/11 13:48 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 15:20

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	807509
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	811835
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97974 Batch Start Date: 10/18/11 14:31 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 16:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	m-GPS-1 00021	m-GPS-2 00018	m-GPS-3 00018	m-GPS-4 00020
580-29110-A-18	PORTLAND 2 S1 0-6	3050B, 6020	T	1.0588 g	50 mL				
580-29110-A-18 DU	PORTLAND 2 S1 0-6	3050B, 6020	T	1.0200 g	50 mL				
580-29110-A-18 MS	PORTLAND 2 S1 0-6	3050B, 6020	T	1.0792 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-29110-A-18 MSD	PORTLAND 2 S1 0-6	3050B, 6020	T	1.0447 g	50 mL	1 mL	1 mL	1 mL	1 mL
580-29110-A-19	PORTLAND 2 S1 6-12	3050B, 6020	T	1.1540 g	50 mL				
580-29110-A-20	PORTLAND 2 S2 0-6	3050B, 6020	T	1.0544 g	50 mL				
580-29110-A-21	CONGRESS S2 0-6	3050B, 6020	T	1.0595 g	50 mL				
580-29110-A-22	CONGRESS S2 6-12	3050B, 6020	T	1.0392 g	50 mL				
580-29110-A-23	PORTLAND 2 S2 6-12	3050B, 6020	T	1.0896 g	50 mL				
MB 580-97974/20		3050B, 6020		1.0 g	50 mL				
LCS 580-97974/21		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSD 580-97974/22		3050B, 6020		1.0 g	50 mL	1 mL	1 mL	1 mL	1 mL
LCSSRM 580-97974/23		3050B, 6020		0.4964 g	50 mL				

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
580-29110-A-18	PORTLAND 2 S1 0-6	3050B, 6020	T						
580-29110-A-18 DU	PORTLAND 2 S1 0-6	3050B, 6020	T						
580-29110-A-18 MS	PORTLAND 2 S1 0-6	3050B, 6020	T	1 mL					
580-29110-A-18 MSD	PORTLAND 2 S1 0-6	3050B, 6020	T	1 mL					
580-29110-A-19	PORTLAND 2 S1 6-12	3050B, 6020	T						
580-29110-A-20	PORTLAND 2 S2 0-6	3050B, 6020	T						
580-29110-A-21	CONGRESS S2 0-6	3050B, 6020	T						
580-29110-A-22	CONGRESS S2 6-12	3050B, 6020	T						
580-29110-A-23	PORTLAND 2 S2 6-12	3050B, 6020	T						

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97974 Batch Start Date: 10/18/11 14:31 Batch Analyst: Boardway, Peter A

Batch Method: 3050B Batch End Date: 10/18/11 16:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	MS-HgSpk 00011	SRMsolid 00006				
MB 580-97974/20		3050B, 6020							
LCS 580-97974/21		3050B, 6020		1 mL					
LCSD 580-97974/22		3050B, 6020		1 mL					
LCSSRM 580-97974/23		3050B, 6020			0.4964 g				

Batch Notes	
Balance ID	SEA220
Hydrogen peroxide lot number	609987
Lot # of hydrochloric acid	807509
Logbook ID for diluted Nitric	782152
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Oven, Bath or Block Temperature 1	93.5 CORRECTED-TEMP Degrees C
Pipette ID	20051014
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	811835
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97935 Batch Start Date: 10/18/11 10:47 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 10/18/11 11:30

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_CAL_WORK 00009	SRMsolid 00006		
580-29110-A-1	PUSHER S-1 0-6	7471A, 7471A	T	0.7133 g	50 mL				
580-29110-A-1 DU	PUSHER S-1 0-6	7471A, 7471A	T	0.7143 g	50 mL				
580-29110-A-1 MS	PUSHER S-1 0-6	7471A, 7471A	T	0.6511 g	50 mL	1 mL			
580-29110-A-1 MSD	PUSHER S-1 0-6	7471A, 7471A	T	0.6136 g	50 mL	1 mL			
580-29110-A-2	PUSHER S-1 6-12	7471A, 7471A	T	0.7609 g	50 mL				
580-29110-A-3	PUSHER S-2 0-6	7471A, 7471A	T	0.7785 g	50 mL				
580-29110-A-4	PUSHER S-2 6-12	7471A, 7471A	T	0.7496 g	50 mL				
580-29110-A-5	PUSHER S-3 0-6	7471A, 7471A	T	0.6675 g	50 mL				
580-29110-A-6	PUSHER S-3 6-12	7471A, 7471A	T	0.6656 g	50 mL				
580-29110-A-7	IBEX S1 0-6	7471A, 7471A	T	0.6369 g	50 mL				
580-29110-A-8	IBEX S2 0-6	7471A, 7471A	T	0.6895 g	50 mL				
580-29110-A-9	O+B UPPER S1 0-6	7471A, 7471A	T	0.9407 g	50 mL				
580-29110-A-10	O+B UPPER S2 0-6	7471A, 7471A	T	0.7476 g	50 mL				
580-29110-A-11	O+B UPPER S3 0-6	7471A, 7471A	T	0.8093 g	50 mL				
580-29110-A-12	O+B LOWER S1 0-6	7471A, 7471A	T	0.7312 g	50 mL				
580-29110-A-13	O+B LOWER S2 0-6	7471A, 7471A	T	0.7442 g	50 mL				
580-29110-A-14	76-7	7471A, 7471A	T	0.6320 g	50 mL				
580-29110-A-15	76-8	7471A, 7471A	T	0.6225 g	50 mL				
580-29110-A-16	CONGRESS S1 0-6	7471A, 7471A	T	0.6249 g	50 mL				
580-29110-A-17	CONGRESS S1 6-12	7471A, 7471A	T	0.6209 g	50 mL				
MB 580-97935/21		7471A, 7471A		0.6 g	50 mL				
LCS 580-97935/22		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSD 580-97935/23		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSSRM 580-97935/24		7471A, 7471A		0.1001 g	50 mL		0.1001 g		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97935 Batch Start Date: 10/18/11 10:47 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 10/18/11 11:30

Batch Notes	
Hydroxylamine Hydrochloride Lot	790508
Balance ID	SEA220
Sulfuric Acid Lot Number	737209
Lot # of hydrochloric acid	807509
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38008
Potassium Persulfate Lot Number	782098
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	93.5
Pipette ID	20051014
Stannous Chloride Lot Number	790550
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	745282
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97946 Batch Start Date: 10/18/11 11:56 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 10/18/11 12:40

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Hg_CAL_WORK 00009	SRMsolid 00006		
580-29110-A-18	PORTLAND 2 S1 0-6	7471A, 7471A	T	0.6381 g	50 mL				
580-29110-A-18 DU	PORTLAND 2 S1 0-6	7471A, 7471A	T	0.6137 g	50 mL				
580-29110-A-18 MS	PORTLAND 2 S1 0-6	7471A, 7471A	T	0.6756 g	50 mL	1 mL			
580-29110-A-18 MSD	PORTLAND 2 S1 0-6	7471A, 7471A	T	0.6272 g	50 mL	1 mL			
580-29110-A-19	PORTLAND 2 S1 6-12	7471A, 7471A	T	0.6867 g	50 mL				
580-29110-A-20	PORTLAND 2 S2 0-6	7471A, 7471A	T	0.8623 g	50 mL				
580-29110-A-21	CONGRESS S2 0-6	7471A, 7471A	T	0.6385 g	50 mL				
580-29110-A-22	CONGRESS S2 6-12	7471A, 7471A	T	0.6146 g	50 mL				
580-29110-A-23	PORTLAND 2 S2 6-12	7471A, 7471A	T	0.6091 g	50 mL				
MB 580-97946/20		7471A, 7471A		0.6 g	50 mL				
LCS 580-97946/21		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSD 580-97946/22		7471A, 7471A		0.6 g	50 mL	1 mL			
LCSSRM 580-97946/23		7471A, 7471A		0.1035 g	50 mL		0.1035 g		

METALS BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97946 Batch Start Date: 10/18/11 11:56 Batch Analyst: Boardway, Peter A

Batch Method: 7471A Batch End Date: 10/18/11 12:40

Batch Notes	
Hydroxylamine Hydrochloride Lot	790508
Balance ID	SEA220
Sulfuric Acid Lot Number	737209
Lot # of hydrochloric acid	807509
Lot # of Nitric Acid	782155
Hood ID or number	06
Hot Block ID number	38009
Potassium Persulfate Lot Number	782098
Potassium Permanganate Lot Number	654649
NaCL Lot #	654642
Oven, Bath or Block Temperature 1	93.5
Pipette ID	20051014
Stannous Chloride Lot Number	790550
ID number of the thermometer	15-041-1A-A
Digestion Tube/Cup Lot #	811835
Uncorrected Temperature	95 Celsius

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY

COVER PAGE
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG No.:

Project: Monte Cristo

Client Sample ID	Lab Sample ID
PUSHER S-1 0-6	580-29110-1
PUSHER S-1 6-12	580-29110-2
PUSHER S-2 0-6	580-29110-3
PUSHER S-2 6-12	580-29110-4
PUSHER S-3 0-6	580-29110-5
PUSHER S-3 6-12	580-29110-6
IBEX S1 0-6	580-29110-7
IBEX S2 0-6	580-29110-8
O+B UPPER S1 0-6	580-29110-9
O+B UPPER S2 0-6	580-29110-10
O+B UPPER S3 0-6	580-29110-11
O+B LOWER S1 0-6	580-29110-12
O+B LOWER S2 0-6	580-29110-13
76-7	580-29110-14
76-8	580-29110-15
CONGRESS S1 0-6	580-29110-16
CONGRESS S1 6-12	580-29110-17
PORTLAND 2 S1 0-6	580-29110-18
PORTLAND 2 S1 6-12	580-29110-19
PORTLAND 2 S2 0-6	580-29110-20
CONGRESS S2 0-6	580-29110-21
CONGRESS S2 6-12	580-29110-22
PORTLAND 2 S2 6-12	580-29110-23

Comments:

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PUSHER S-1 0-6 Lab Sample ID: 580-29110-1

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/27/2011 11:30

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.28			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PUSHER S-1 6-12 Lab Sample ID: 580-29110-2

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/27/2011 11:40

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.63			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PUSHER S-2 0-6 Lab Sample ID: 580-29110-3

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/27/2011 11:55

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	3.53			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PUSHER S-2 6-12 Lab Sample ID: 580-29110-4

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/27/2011 12:05

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	3.76			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PUSHER S-3 0-6 Lab Sample ID: 580-29110-5

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/27/2011 12:20

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	3.66			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PUSHER S-3 6-12 Lab Sample ID: 580-29110-6

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/27/2011 12:25

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.04			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: IBEX S1 0-6 Lab Sample ID: 580-29110-7

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 14:30

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.48			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: IBEX S2 0-6 | Lab Sample ID: 580-29110-8

Lab Name: TestAmerica Seattle | Job No.: 580-29110-1

SDG ID.:

Matrix: Solid | Date Sampled: 09/28/2011 14:40

Reporting Basis: WET | Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.64			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: O+B UPPER S1 0-6 Lab Sample ID: 580-29110-9

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 15:00

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	3.09			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: O+B UPPER S2 0-6 Lab Sample ID: 580-29110-10

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 15:25

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.71			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: O+B UPPER S3 0-6 Lab Sample ID: 580-29110-11

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 15:40

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	2.89			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: O+B LOWER S1 0-6 Lab Sample ID: 580-29110-12

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 16:20

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	1.74			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: O+B LOWER S2 0-6 Lab Sample ID: 580-29110-13

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/28/2011 16:45

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.14			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-7 Lab Sample ID: 580-29110-14

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 16:50

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.96			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: 76-8 Lab Sample ID: 580-29110-15

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 16:37

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.28			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: CONGRESS S1 0-6 Lab Sample ID: 580-29110-16

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 13:40

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.39			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: CONGRESS S1 6-12 Lab Sample ID: 580-29110-17

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 13:50

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.66			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PORTLAND 2 S1 0-6 Lab Sample ID: 580-29110-18

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 14:05

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	3.19			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PORTLAND 2 S1 6-12 Lab Sample ID: 580-29110-19

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 14:15

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.79			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PORTLAND 2 S2 0-6 Lab Sample ID: 580-29110-20

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 14:45

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	4.66			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: CONGRESS S2 0-6 Lab Sample ID: 580-29110-21

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 14:50

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.76			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: CONGRESS S2 6-12 Lab Sample ID: 580-29110-22

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 15:00

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	5.69			SU			1	9045C

1B-IN
INORGANIC ANALYSIS DATA SHEET
GENERAL CHEMISTRY

Client Sample ID: PORTLAND 2 S2 6-12 Lab Sample ID: 580-29110-23

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG ID.:

Matrix: Solid Date Sampled: 09/29/2011 15:00

Reporting Basis: WET Date Received: 10/05/2011 16:35

CAS No.	Analyte	Result			Units	C	Q	DIL	Method
	pH	6.13			SU			1	9045C

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Analyst: JP Batch Start Date: 10/17/2011

Reporting Units: SU Analytical Batch No.: 97871

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	16:15	pH	7.050					
21	CCV	16:15	pH	7.030					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

2-IN
CALIBRATION QUALITY CONTROL
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Analyst: JP Batch Start Date: 10/17/2011

Reporting Units: SU Analytical Batch No.: 97873

Sample Number	QC Type	Time	Analyte	Result	Spike Amount	(%) Recovery	Limits	Qual	Reagent
1	ICV	16:30	pH	7.030					
22	CCV	16:30	pH	7.030					

Note! Calculations are performed before rounding to avoid round-off errors in calculated results.

FORM II-IN

9-IN
DETECTION LIMITS
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job Number: 580-29110-1

SDG Number:

Matrix: Solid Instrument ID: NOEQUIP

Method: Moisture RL Date: 01/01/2005 13:13

Analyte	Wavelength/ Mass	RL (%)	
Percent Moisture		0.1	
Percent Solids		0.1	

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045C

Start Date: 10/17/2011 16:15 End Date: 10/17/2011 16:15

Lab Sample ID	D/F	Type	Time	Analytes
				pH
ICV 580-97871/1	1		16:15	X
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
ZZZZZZ			16:15	
580-29110-1	1	T	16:15	X
580-29110-2	1	T	16:15	X
580-29110-3	1	T	16:15	X
580-29110-4	1	T	16:15	X
580-29110-5	1	T	16:15	X
580-29110-6	1	T	16:15	X
CCV 580-97871/21	1		16:15	X

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: NOEQUIP Method: 9045C

Start Date: 10/17/2011 16:30 End Date: 10/17/2011 16:30

Lab Sample ID	D / F	Type	Time	Analytes																			
				pH																			
ICV 580-97873/1	1		16:30	X																			
580-29110-7	1	T	16:30	X																			
580-29110-8	1	T	16:30	X																			
580-29110-9	1	T	16:30	X																			
580-29110-10	1	T	16:30	X																			
580-29110-11	1	T	16:30	X																			
580-29110-12	1	T	16:30	X																			
580-29110-13	1	T	16:30	X																			
580-29110-14	1	T	16:30	X																			
580-29110-15	1	T	16:30	X																			
580-29110-16	1	T	16:30	X																			
580-29110-17	1	T	16:30	X																			
580-29110-18	1	T	16:30	X																			
580-29110-19	1	T	16:30	X																			
580-29110-20	1	T	16:30	X																			
580-29110-21	1	T	16:30	X																			
580-29110-22	1	T	16:30	X																			
580-29110-23	1	T	16:30	X																			
ZZZZZZ			16:30																				
ZZZZZZ			16:30																				
ZZZZZZ			16:30																				
CCV 580-97873/22	1		16:30	X																			

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle   Job No.: 580-29110-1

SDG No.:

Instrument ID: NOEQUIP   Method: Moisture

Start Date: 10/06/2011 12:14   End Date: 10/06/2011 12:14

Lab Sample ID	D/F	Type	Time	Analytes: %Sol	Moist
ZZZZZZ			12:14		
ZZZZZZ			12:14		
ZZZZZZ			12:14		
ZZZZZZ			12:14		
ZZZZZZ			12:14		
ZZZZZZ			12:14		
ZZZZZZ			12:14		
ZZZZZZ			12:14		
ZZZZZZ			12:14		
ZZZZZZ			12:14		
580-29110-1	1	T	12:14	X	X
580-29110-2	1	T	12:14	X	X
580-29110-3	1	T	12:14	X	X
580-29110-4	1	T	12:14	X	X
580-29110-5	1	T	12:14	X	X
580-29110-6	1	T	12:14	X	X
580-29110-7	1	T	12:14	X	X
580-29110-8	1	T	12:14	X	X
580-29110-9	1	T	12:14	X	X
580-29110-10	1	T	12:14	X	X
580-29110-11	1	T	12:14	X	X

Prep Types

T = Total/NA

13-IN
ANALYSIS RUN LOG
GENERAL CHEMISTRY

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Instrument ID: NOEQUIP Method: Moisture

Start Date: 10/06/2011 13:12 End Date: 10/06/2011 13:12

Lab Sample ID	D / F	Type	Time	Analytes																			
				% Sol	Moist																		
580-29110-12	1	T	13:12	X	X																		
580-29110-13	1	T	13:12	X	X																		
580-29110-14	1	T	13:12	X	X																		
580-29110-15	1	T	13:12	X	X																		
580-29110-16	1	T	13:12	X	X																		
580-29110-17	1	T	13:12	X	X																		
580-29110-18	1	T	13:12	X	X																		
580-29110-19	1	T	13:12	X	X																		
580-29110-20	1	T	13:12	X	X																		
580-29110-21	1	T	13:12	X	X																		
580-29110-22	1	T	13:12	X	X																		
580-29110-23	1	T	13:12	X	X																		
ZZZZZZ			13:12																				
ZZZZZZ			13:12																				

Prep Types

T = Total/NA

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst JP Date 10/17/11 Instrument ID pH2

Batch 97871 Start Time 9:10 End Time 15:15

Calibration

pH 4 Std.	TALS ID: 779178	Slope =	97.9	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756339	Slope =	97.1	
pH 10 Std.	TALS ID: 756338	Slope =	95.5	
For Orion 370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.05	7.05	7.05	(±0.05 units) Yes / No
1	~~29263-E-1~~ JP	10/17/11			Done 10-14-11
2	29282-D-1	7.79	7.79	7.79	
3	29282-D-1 DU	7.73	7.73	7.73	
4	29282-B-4	6.94	6.93	6.93	
5	29051-E-1	7.20	7.21	7.21	
6	29067-B-1	7.17	7.17	7.17	
7	29067-B-2	7.25	7.24	7.24	
8	29282-A-2	3.90	3.89	3.89	
9	29040-A-1	4.83	4.83	4.83	
10	29040-A-2	5.56	5.56	5.56	
11	29040-A-3	5.46	5.46	5.46	
12	29040-A-4	6.87	6.87	6.87	
13	29040-A-5	7.03	7.02	7.02	
14	29040-A-6	7.16	7.16	7.16	
15	29110-A-1	5.28	5.28	5.28	
16	29110-A-2	4.63	4.63	4.63	
17	29110-A-3	3.53	3.53	3.53	
18	29110-A-4	3.77	3.76	3.76	
19	29110-A-5	3.67	3.66	3.66	
20	29110-A-6	4.05	4.04	4.04	
Closing CCV	pH7 Std. TALS ID:	7.03	7.03	7.03	(±0.05 units) Yes / No

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units) Yes / No

Reviewer's Initals and Date

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Seattle

pH/Corrosivity

150.1 / 9040B / 9045C (circle one)

Analyst JP Date 10/17/11 Instrument ID pH2

Batch 97873 Start Time 15:30 End Time 16:10

Calibration

pH 4 Std.	TALS ID: 779178	Slope =	97.9	Acceptance Criteria 92.0-105.0
pH 7 Std.	TALS ID: 756335	Slope =	97.1	
pH 10 Std.	TALS ID: 756338	Slope =	95.5	
For Orion.370 pH meter, please record Avg. Slope =				

High / Low check standards (Use when sample is outside calibration range)

True Value	Measured Value	±0.05 units	Reagent
2.00		Yes / No	Lot:
11.00		Yes / No	Lot:

Probe Maintenance	Performed by
Probe Cleaned*	
Check solution level daily-Add if required	

*Perform weekly on first day of use or as required.

pH(1) and pH(2) must agree within 0.1 pH units.

Sample	Sample ID	pH(1)	pH(2)	Result	Comments
ICV	pH7 Std. TALS ID:	7.03	7.03	7.03	(±0.05 units) Yes / No
1	29110-A-7	5.48	5.48	5.48	
2	29110-A-8	5.65	5.64	5.64	
3	29110-A-9	3.10	3.09	3.09	
4	29110-A-10	5.70	5.71	5.71	
5	29110-A-11	2.90	2.89	2.89	
6	29110-A-12	1.74	1.74	1.74	
7	29110-A-13	4.14	4.14	4.14	
8	29110-A-14	4.97	4.96	4.96	
9	29110-A-15	5.28	5.28	5.28	
10	29110-A-16	5.39	5.39	5.39	
11	29110-A-17	5.66	5.66	5.66	
12	29110-A-18	3.19	3.19	3.19	
13	29110-A-19	4.79	4.79	4.79	
14	29110-A-20	4.66	4.66	4.66	
15	29110-A-21	5.76	5.76	5.76	
16	29110-A-22	5.69	5.69	5.69	
17	29110-A-23	6.12	6.13	6.13	
18	29241-A-5	6.38	6.39	6.39	
19	29241-A-6	6.72	6.70	6.70	
20	~~29226-A-1~~	~~7.28~~	~~7.30~~	~~7.30~~	6.67, 6.66, 6.66
Closing CCV	pH7 Std. TALS ID:	7.03	7.03	7.03	(±0.05 units) Yes / No

JP 10/17/11

29241-A-6DU

Duplicate	Sample ID	pH(1)	pH(2)	Result	(±0.1 units)
					Yes / No

Reviewer's Initals and Date

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97058 Batch Start Date: 10/06/11 12:14 Batch Analyst: DeMonnin, Robert

Batch Method: Moisture Batch End Date: 10/07/11 10:08

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
580-29110-A-1	PUSHER S-1 0-6	Moisture	T	0.7448 g	5.0844 g	4.7137 g			
580-29110-A-2	PUSHER S-1 6-12	Moisture	T	0.7375 g	7.2558 g	5.9096 g			
580-29110-A-3	PUSHER S-2 0-6	Moisture	T	0.7355 g	8.5052 g	8.2088 g			
580-29110-A-4	PUSHER S-2 6-12	Moisture	T	0.7493 g	6.2091 g	5.2519 g			
580-29110-A-5	PUSHER S-3 0-6	Moisture	T	0.7650 g	7.9490 g	7.7600 g			
580-29110-A-6	PUSHER S-3 6-12	Moisture	T	0.7700 g	5.4289 g	4.3898 g			
580-29110-A-7	IBEX S1 0-6	Moisture	T	0.7880 g	8.4926 g	8.2416 g			
580-29110-A-8	IBEX S2 0-6	Moisture	T	0.7809 g	6.5092 g	6.4072 g			
580-29110-A-9	O+B UPPER S1 0-6	Moisture	T	0.7537 g	6.9827 g	6.6975 g			
580-29110-A-10	O+B UPPER S2 0-6	Moisture	T	0.7553 g	9.2367 g	8.6538 g			
580-29110-A-11	O+B UPPER S3 0-6	Moisture	T	0.7696 g	6.5729 g	6.3952 g			

Batch Notes	
Balance ID	sea218 No Unit
Date samples were placed in the oven	10-6-11
Oven Temp when samples are put in oven	110 Degrees C
Time samples were place in the oven	12:58
Date samples were removed from oven	10-7-11
Oven Temp when samples removed from oven	111 Degrees C
Time Samples were removed from oven	10:00
Oven ID	tac306
ID number of the thermometer	3a4823
Uncorrected In Temperature	110 Celsius
Uncorrected Out Temperature	111 Celsius

Basis	Basis Description
T	Total/NA

GENERAL CHEMISTRY BATCH WORKSHEET

Lab Name: TestAmerica Seattle Job No.: 580-29110-1

SDG No.:

Batch Number: 97065 Batch Start Date: 10/06/11 13:12 Batch Analyst: DeMonnin, Robert

Batch Method: Moisture Batch End Date: 10/07/11 10:15

Lab Sample ID	Client Sample ID	Method Chain	Basis	DishWeight	SampleMassWet	SampleMassDry			
580-29110-A-12	O+B LOWER S1 0-6	Moisture	T	0.7359 g	6.9305 g	6.7674 g			
580-29110-A-13	O+B LOWER S2 0-6	Moisture	T	0.8093 g	8.1575 g	7.9306 g			
580-29110-A-14	76-7	Moisture	T	0.8127 g	5.6064 g	4.9816 g			
580-29110-A-15	76-8	Moisture	T	0.7770 g	4.1678 g	3.0132 g			
580-29110-A-16	CONGRESS S1 0-6	Moisture	T	0.7477 g	5.0576 g	4.4100 g			
580-29110-A-17	CONGRESS S1 6-12	Moisture	T	0.7614 g	5.4587 g	4.7547 g			
580-29110-A-18	PORTLAND 2 S1 0-6	Moisture	T	0.7518 g	9.3787 g	9.0296 g			
580-29110-A-19	PORTLAND 2 S1 6-12	Moisture	T	0.8079 g	5.5916 g	5.5002 g			
580-29110-A-20	PORTLAND 2 S2 0-6	Moisture	T	0.7865 g	7.9980 g	7.9005 g			
580-29110-A-21	CONGRESS S2 0-6	Moisture	T	0.7645 g	6.2810 g	6.1779 g			
580-29110-A-22	CONGRESS S2 6-12	Moisture	T	0.7553 g	5.7503 g	5.6209 g			
580-29110-A-23	PORTLAND 2 S2 6-12	Moisture	T	0.7772 g	9.8928 g	9.6880 g			

Batch Notes	
Balance ID	sea218 No Unit
Date samples were placed in the oven	10-6-11
Oven Temp when samples are put in oven	110 Degrees C
Time samples were place in the oven	13:27
Date samples were removed from oven	10-7-11
Oven Temp when samples removed from oven	111 Degrees C
Time Samples were removed from oven	10:10
Oven ID	tac306
ID number of the thermometer	3a4823
Uncorrected In Temperature	110 Celsius
Uncorrected Out Temperature	111 Celsius

Basis	Basis Description
T	Total/NA

Shipping and Receiving Documents

Sample Custody Record

Samples Shipped to: TEST AMERICA

1 OF 2

HARTCROWSER

Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB 17800-06 LAB NUMBER

PROJECT NAME MONTE CRISTO

HART CROWSER CONTACT MICHELLE HAVEY

SAMPLED BY: ASK, MAH, PRC, WDM

29110

LAB NO.	SAMPLE ID	~~DESCRIPTION~~	DATE	TIME	MATRIX	REQUESTED ANALYSIS: SEE ATTACHED TABLE 1	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
1	PUSHER S1 0-6		9/27/11	1130	SOIL	X	1	
2	PUSHER S1 6-12			1140		X	1	
3	PUSHER S2 0-6			1155		X	1	
4	PUSHER S2 6-12			1205		X	1	
5	PUSHER S3 0-6			1220		X	1	
6	PUSHER S3 6-12			1225		X	1	
7	IBEX S1 0-6		9/28/11	1430		X	1	
8	IBEX S2 0-6			1440		X	1	
9	O+B UPPER S1 0-6			1500		X	1	
10	O+B UPPER S2 0-6			1525		X	1	
11	O+B UPPER S3 0-6			1540		X	1	
12	O+B LOWER S1 0-6			1620		X	1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: Andrew Kaparos	10/5/11	SIGNATURE: Tom Blankinship	10/5/11
PRINT NAME: Andrew Kaparos	TIME	PRINT NAME: Tom Blankinship	TIME
COMPANY: Hart Crowser	1405	COMPANY: TA-Sea	1635
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

PLEASE RETAIN ALL SAMPLES FOR ARSENIC SPECIATION PENDING RESULTS

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER 10 DAYS

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser Gold to Sample Custodian

10/25/2011

Sample Custody Record

Samples Shipped to: TEST AMERICA

2 OF 2

HARTCROWSER

Hart Crowser, Inc.
1910 Fairview Avenue East
Seattle, Washington 98102-3699
Phone: 206-324-9530 FAX: 206-328-5581

JOB 17800-06 LAB NUMBER

PROJECT NAME MONTE CRISTO

HART CROWSER CONTACT MICHELLE HAVEY

SAMPLED BY: ASK, MAH, PRC, WDM

29110

LAB NO.	SAMPLE ID	~~DESCRIPTION~~	DATE	TIME	MATRIX	REQUESTED ANALYSIS: SEE ATTACHED TABLE 1	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
13	O&B LOWER S2 0-6		9/28/11	1645	SOIL	X	1	
14	76-7		9/29/11	1650		X	1	
15	76-8			1637		X	1	
16	CONGRESS S1 0-6			1340		X	1	
17	CONGRESS S1 6-12			1350		X	1	
18	PORTLAND 2 S1 0-6			1405		X	1	
19	PORTLAND 2 S1 6-12			1415		X	1	
20	PORTLAND 2 S2 0-6			1445		X	1	
21	CONGRESS S2 0-6			1450		X	1	
22	CONGRESS S2 6-12			1500		X	1	
23	PORTLAND 2 S2 6-12			1500		X	1	
								PriCour Med Red/wh wet/other IR = 4.9/3.9

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE: Andrew Skaros	10/5/11	SIGNATURE: Tom Blankinship	10/5/11
PRINT NAME: ANDREW KAPAROS	TIME: 1405	PRINT NAME:	TIME: 1635
COMPANY: HART CROWSER		COMPANY:	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

PLEASE RETAIN ALL SAMPLES FOR ARSENIC SPECIATION PENDING RESULTS

11 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☐ STANDARD
☐ 72 HOURS OTHER 10 DAYS

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser Gold to Sample Custodian

10/25/2011

Table 1 - Sample Containers, Preservation, and Holding Times

Analyte	MTCA Method B Screening Level	Prep Method	Analysis Method	MRL	MDL	Units	Min Sample	Preservative	Holding Time
Aluminum	8.00E+04	EPA 3050B	EPA 6020	30.0	3.00	mg/Kg	1 - 4 oz plastic bottle (10 gms)	ice	6 months; mercury - 28 days
Antimony	3.20E+01	EPA 3050B	EPA 6020	0.2	0.042	mg/Kg			
Arsenic	NA	EPA 3050B	EPA 6020	0.5	0.18	mg/Kg			
Barium	1.60E+04	EPA 3050B	EPA 6020	0.2	0.022	mg/Kg			
Beryllium	1.60E+02	EPA 3050B	EPA 6020	0.2	0.022	mg/Kg			
Cadmium	8.00E+01	EPA 3050B	EPA 6020	0.2	0.01	mg/Kg			
Calcium	NA	EPA 3050B	EPA 6010B	55.0	3.10	mg/Kg			
Chromium	2.40E+02	EPA 3050B	EPA 6020	0.2	0.072	mg/Kg			
Cobalt	NA	EPA 3050B	EPA 6020	0.2	0.019	mg/Kg			
Copper	3.20E+03	EPA 3050B	EPA 6020	0.2	0.098	mg/Kg			
Iron	5.60E+04	EPA 3050B	EPA 6010B	10.0	0.61	mg/Kg			
Lead	NA	EPA 3050B	EPA 6020	0.2	0.011	mg/Kg			
Magnesium	NA	EPA 3050B	EPA 6010B	55.0	3.20	mg/Kg			
Manganese	1.12E+04	EPA 3050B	EPA 6020	0.5	0.105	mg/Kg			
Mercury	2.40E+01	EPA 7471A	EPA 7471A	0.02	0.0063	mg/Kg			
Nickel	1.60E+03	EPA 3050B	EPA 6020	0.2	0.071	mg/Kg			
Potassium	NA	EPA 3050B	EPA 6010B	165.0	16.00	mg/Kg			
Selenium	4.00E+02	EPA 3050B	EPA 6020	0.7	0.202	mg/Kg			
Silver	4.00E+02	EPA 3050B	EPA 6020	0.2	0.007	mg/Kg			
Sodium	NA	EPA 3050B	EPA 6020	100.0	14.70	mg/Kg			
Thallium	NA	EPA 3050B	EPA 6020	0.5	0.13	mg/Kg			
Vanadium	5.60E+00	EPA 3050B	EPA 6020	0.7	0.473	mg/Kg			
Zinc	2.40E+04	EPA 3050B	EPA 6020	0.7	0.32	mg/Kg			
Soil pH		9045C		± 0.1		std pH units			

Note: soil moisture is also determined automatically by the lab for each sample. Moisture = (wet weight - dry weight)/wet weight.

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 580-29110-1

Login Number: 29110

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom

Question	Answer	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	Not needed.
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	N/A	No voa vial rec'd.
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

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APPENDIX C
TERRESTRIAL ECOLOGICAL EVALUATION

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ANALYTICAL SOILS DATA USED IN THE TERRESTRIAL ECOLOGICAL EVALUATION (PROVIDED ON CD)

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ATTACHMENT D
PROUCL OUTPUT FILES – SOIL BACKGROUND COMPARISONS (PROVIDED ON CD)

ATTACHMENT E
ALTERNATIVE WILDLIFE TOXICITY REFERENCE VALUE DATA

ACRONYMS

AMSL	above mean sea level
BAF	bioaccumulation factor
COPEC	constituent of potential ecological concern
CSM	conceptual site model
DL	detection limit
EC10	effects concentration 10
EC20	effects concentration 20
Ecology	Washington State Department of Ecology
EcoSSL	ecological soil screening level
EISC	ecological indicator soil concentration
EPA	U.S. Environmental Protection Agency
EPC	exposure point concentration
FIR	food ingestion rate
HQ	hazard quotient
LOAEC	lowest observed adverse effect concentration
LOAEL	lowest observed adverse effect level
MATC	maximum allowable threshold concentration
MCMA	Monte Cristo Mining Area
MT	metallothioneins
MTCA	Model Toxics Control Act
NOAEC	no observed adverse effect concentration
NOAEL	no observed adverse effect level
NRC	National Research Council
ORNL	Oak Ridge National Laboratory
P	proportion of contaminated food in diet
P_s	proportion of soil in diet
RGAF	gut absorption factor
RI	remedial investigation
SFSR	South Fork Sauk River
SIR	soil ingestion rate
TEE	terrestrial ecological evaluation
TRV	toxicity reference value
UCL	upper confidence limit
VOC	volatile organic compound
WAC	Washington Administrative Code
WMW	Wilcoxon-Mann-Whitney

TERRESTRIAL ECOLOGICAL EVALUATION OF THE MONTE CRISTO MINING AREA

1.0 INTRODUCTION

This terrestrial ecological evaluation (TEE) forms part of the remedial investigation (RI) for the Monte Cristo Mining Area (MCMA) site. This evaluation meets the regulatory requirements for a site-specific TEE under the Model Toxics Control Act (MTCA) (Washington Administrative Code (WAC) 173-340-7493).

This introduction provides a description of the MCMA site. It also describes the regulatory framework and purpose for the TEE.

1.1 Site Description

The MCMA is located at the headwaters of the South Fork Sauk River within the Mt. Baker-Snoqualmie National Forest near Granite Falls, Washington (Figure C-1). Three smaller watersheds (Weden Creek, Glacier Creek, and Seventysix Gulch) form the headwaters of the South Fork Sauk River approximately 6 miles upstream of Monte Cristo Lake. The area is a popular recreational destination and is accessible to hikers by a washed-out dirt road which runs south from Barlow Pass on the Mountain Loop Highway; the road crosses over and follows along the South Fork Sauk River to the Monte Cristo Townsite (Townsite). There is currently no vehicular access to the area.

The MCMA is situated within extremely rugged terrain in the Cascade Mountains, with elevations ranging upward from approximately 2,760 feet above mean sea level at the Townsite. (All elevations are above mean seal level, AMSL, unless noted otherwise.) The high-elevation portion of the MCMA is drained by Glacier Creek and Seventysix Gulch, and the headwaters of both creeks exceed 6,000 feet AMSL. The confluence of these streams at the Townsite marks the beginning of the South Fork Sauk River. The following summary of mining activity is taken from the Cascade Earth Sciences Engineering Evaluation/Cost Analysis dated April 2010 (CES 2010).

The MCMA consists of numerous abandoned base metal and gold mines. The area has a number of potential contaminant sources: open and closed adits, waste rock piles, the remnants of the ore storage facility (Ore Collector) and processing facility (Concentrator), the Assay Shack, and miscellaneous debris. Several of these potential sources are adjacent to either Glacier Creek or

Seventysix Gulch, both of which are tributaries to the South Fork Sauk River (Figures C-2A through C-2C).

Historical mining practices of in-stream disposal and erosion from waste piles has introduced mining waste to surface water. Materials containing hazardous substances associated with mining and milling include waste rock, ore, concentrate, tailings, impacted soil, impacted stream sediment, seeps from mine features (e.g., adits and waste rock dumps), groundwater, and surface water.

Prospecting began in the spring of 1889, with active claim staking and mine development shortly thereafter (CES 2010). A railroad to the Townsite was completed in 1893, and a 300-tons-per-day concentrator was constructed on site. Mining activity was strong until flooding destroyed the rail access in 1897. Rail service was restored in 1900, but production continued only on a limited basis until 1907 with several unsuccessful attempts to restore mining until 1920. A total of 54 mines and prospects, as well as ore transport, storage, and processing facilities were identified within the Monte Cristo Mining District (District) during a study conducted by the US Bureau of Mines (Johnson et al. 1983).

Production records for the District are spotty, but ore production is estimated to have been at least 310,000 tons (Johnson et al. 1983). Over 90 percent of the ore processed at the United Companies Concentrator was extracted from the Mystery/Pride mine complex and Justice/Golden Cord mine complex, but several other adits and claims contributed as well (Amann and Lambeth 2007). Total indicated and inferred gold-silver-copper-lead-zinc resources and restricted marginal reserves in the District were estimated at nearly 51 million tons, of which essentially all came from the large northeast shear zone developed by the Justice/Golden Cord, Mystery/Pride, and New Discovery mines.

Standard underground mining practices were used for all mines in the MCMA (CES 2010). Ore from the Glacier Creek/Basin mines was sent to the Ore Collector for coarse crushing (Figure C-2A). It was then trammed along the haulage way to the United Companies Concentrator (Concentrator) by horse-drawn rail. At the Concentrator, ore went through a series of fine crushers and rolls before being passed through a system of jigs for concentrating. An unknown volume of tailings were discharged to the surrounding land and Glacier Creek.

1.2 Regulatory Framework and Purpose

This ecological assessment evaluates potential hazards to terrestrial ecological receptors from residual constituent concentrations present in soil at the MCMA.

Hazards to aquatic ecological receptors are evaluated elsewhere (CES 2011). A site-specific TEE was deemed the most appropriate method for this assessment. This site-specific TEE was prepared following procedures prescribed in MTCA (WAC 173-340-7493).

A phased approach is used for the MCMA TEE. The first phase of the TEE is contained in this report and includes problem formulation and hazard characterization. In problem formulation, site soil constituent concentrations are compared to MTCA default ecological indicator soil concentrations (EISCs) and natural background concentrations to identify constituents of potential ecological concern (COPECs). Alternative EISCs were then developed for the COPECs using updated information obtained from the scientific literature. In hazard characterization, constituent concentrations in site soils are then compared to the alternative EISCs to refine the COPEC selection process for the site.

This first phase of the TEE uses a literature-based approach to assess ecological hazards. Results of the first phase of the TEE are evaluated in the conclusions and recommendations sections of this report (Sections 5.0 and 6.0) to determine if further assessment is required. Where further assessment is required, a second phase of the TEE may be conducted and may include the collection of additional site-specific data (e.g., tissue samples, bioassays) to refine hazard characterization. The need for, scope, and schedule for a second phase of the TEE will be evaluated following review of the first phase results.

MTCA (WAC 173-340-7490(3)(b)) stipulates that for commercial/industrial properties, the TEE should be protective of terrestrial wildlife (e.g., birds and mammals). For all other land uses, the TEE should be protective of plants, soil biota, and wildlife. Although patented mine claims are present at the site, we understand there are currently no permits in place for future mine development and none of the site land meets the MTCA definition of industrial or commercial property (personal communication with J. Shira, Ecology, December 1, 2011). Therefore, the goal of the site-specific TEE for the MCMA is protection of plants, soil biota, and wildlife.

The standard point of compliance for a TEE extends from the soil surface to a depth of 15 feet (WAC 173-340-7490(4)). MTCA also allows the use of a conditional point of compliance which represents the bioactive soil layer extending from 0 to 6 feet below ground surface (bgs). The conditional point of compliance represents a conservative estimate of the maximum depth of rooting and burrowing soil biota and wildlife. However, site-specific conditions may limit the bioactive soil layer to less than the default bioactive layer of 0 to 6 feet. MTCA provides for the development of site-specific points of compliance for the

TEE based upon analysis of the biological and physical conditions present at the site. Since the potential contaminants of concern discussed later in this report are relatively immobile, and characterization of soil below 6 feet deep would be very difficult due to site access constraints, we assumed for purposes of the RI that a conditional point of compliance of 0 to 6 feet below ground surface would apply to the MCMA site.

For purposes of this site-specific TEE, the term "soil" means a mixture of organic and inorganic solids, air, water, and biota that exists on the earth's surface above bedrock, including waste rock, ore, and tailings associated with mining activities, consistent with WAC 173-340-200.

This site-specific TEE is organized into the following sections:

- 2.0 Problem Formulation – problem formulation identifies the ecological issues to be addressed in the TEE and includes a description of the ecological setting for the site, an assessment of potential exposure, the identification of receptors of concern, an assessment of potential toxicity, and the identification of COPECs

- 3.0 Derivation of Alternative Ecological Indicator Soil Concentrations – describes the methods used to develop alternative EISCs for plants, soil biota, and wildlife for use in hazard characterization

- 4.0 Hazard Characterization – evaluates hazards associated with COPECs at each exposure area and provides a qualitative description of the major sources of uncertainty associated with the hazard characterization

- 5.0 Conclusions – integrates results of the hazard characterization and uncertainty analysis to formulate conclusions on the ecological hazards to terrestrial receptors

- 6.0 Recommendations – provides recommendations for further evaluation of terrestrial ecological hazards, if required

2.0 PROBLEM FORMULATION

The problem formulation for the MCMA site includes the following components:

- A description of the ecological setting of the MCMA site;
- An exposure assessment;
- Identification of ecological receptors of concern;
- A toxicity assessment; and

- The identification of COPECs.

2.1 Ecological Setting

The MCMA is situated in a predominantly forested area characteristic of the Pacific Northwest region. The former mining area contains numerous waterways flowing through forested valleys that transition to rocky ridges and peaks at higher elevations. Terrestrial habitats include vegetated valley bottoms, steep valley walls and cliffs, rocky ridges, alpine meadows, talus fields, lakes, and mountain peaks. These habitat types support a wide variety of wildlife including threatened and endangered species that use the site on a seasonal to permanent basis.

Three main watersheds are located in the MCMA: Glacier Creek, Seventysix Gulch, and Weden Creek (Figure C-1). Each watershed contains one main drainage or waterway with numerous seasonal to permanent and named and unnamed tributaries flowing into the main drainage. Additionally, each of the individual watersheds contains some or all of the terrestrial habitats discussed above, which support diverse flora and fauna despite impacts from former mining activities.

Soil samples were collected at numerous mine sites within the MCMA and potential terrestrial receptor observations (Attachment A) were recorded during field visits. Terrestrial receptor data was collected at four abandoned mine locations in the Glacier Creek watershed, seven in Seventysix Gulch watershed, and two in Weden Creek watershed.

2.1.1 Terrestrial Habitats

The Glacier Creek, Seventysix Gulch, and Weden Creek watershed boundaries generally follow ridgelines, passes, and peaks to form the individual watersheds or basins. Terrestrial habitats observed within the three watersheds comprising the MCMA include, but may not be limited to: valley bottoms, valley walls, ridges, meadows, talus fields, lakes, and mountain peaks (Figures C-3A through C-3C). In addition, disturbed habitat associated with former mines, patents, and prospects in the MCMA are also present within the three watersheds.

Glacier Creek Watershed

The Glacier Creek watershed is located east/northeast from Seventysix Gulch. This watershed is characterized by rock, snow, and ice (Figure C-3A). Small portions of this watershed contain coniferous forest and consist primarily of small forested or shrub stands interspersed with rock and talus. Shrubs and

herbaceous vegetation dominate the lower portion of the basin slopes. Numerous seasonal waterways exist within the eastern portion of the watershed and route snowmelt into Glacier Creek.

Seventysix Gulch Watershed

The Seventysix Gulch watershed is located east/southeast of Weden Creek and is geographically the smallest of the three watersheds. The northern half and low elevation areas of the watershed are predominately forested and dominated by coniferous forest (Figure C-3B). The southern portion of the watershed consists of talus slopes, rocky ridges, lakes, mountain peaks, and glaciers. Vegetation on talus slopes, peaks, and ridges is limited to areas with adequate soil to support plant growth. Shrub species, such as salmonberry (*Rubus spectabilis*) and slide alder (*Alnus sinuata*), are common on talus or rock slopes and ridgelines, and herbaceous vegetation, including a variety of ferns, grasses, and mosses, are typically found on vegetated gravel bars and adjacent to waterways.

Weden Creek Watershed

Most of the Weden Creek watershed is located at the lowest elevation of the three watersheds in the MCMA and is distinguished from the other watersheds by a dominance of forested vegetation including coniferous and deciduous species within valley bottom, talus slope, and ridge habitats. The western and southern portions of this watershed contain talus slope, lakes, rocky ridges, and mountain peaks that generally support forested or shrub vegetation communities with the exception of areas at the highest elevations (Figure C-3C).

Forest habitats provide shelter, food, and migration corridors for small to large mammals, herpetiles, macroinvertebrates, and birds. Forested habitats in the MCMA include riparian areas, young and old coniferous and deciduous forests, and other vegetated habitats with a canopy cover. Forested habitats vary in structural and species diversity. Past mining activities and natural disturbance regimes (e.g., erosion, avalanches) have altered these habitats, leaving impacted portions of the individual watersheds with young alder forest and limited structural diversity. Large portions of the watersheds continue to support intact and structurally diverse forested habitats that are important food sources for small to large mammals such as squirrels, deer, and bears, which rely on the nuts, berries, and plant foliage on a seasonal basis. This habitat type is also crucial for the development of macroinvertebrate populations that support other wildlife populations, such as fish, birds, and amphibians, throughout the area. Shrub and scrub habitats are interspersed among the forested and rocky habitat types and provide increased structural diversity and similar habitat functions as forested habitat types.

Talus slopes are numerous and interspersed with other habitat types throughout the MCMA. Talus is present in many of the seasonal and permanent drainages, at the base of rocky ridges and cliffs, and along ridgelines. These habitats are present from low to high elevation areas, and transition from valley walls and rocky ridges to the valley bottom habitats. Talus slope ranges from sparse to densely vegetated (primarily salmonberry, Indian hellebore [*Veratrum viride*], Devil's club, and alder) to unvegetated. Talus slopes serve as important habitat by providing refuge and food storage functions that support small to medium mammals, such as wolverine, pika, and marmot. Additionally, mammals using talus slope habitat support carnivorous mammal populations.

Disturbed habitat from former mining activities exists in localized areas throughout the three watersheds. Inactive mine features including adits and waste rock piles, among other features, remain. Disturbance as a result of these activities and features ranges from extensive to limited. In general, disturbed habitats from mining activities equal a small percentage (less than 1 percent)of the overall combined or individual watershed areas.

2.1.2 Plants and Animals

Numerous plant and animal species are known or likely to occur on or in the immediate vicinity of the MCMA. Plant species include trees, shrubs, and herbaceous vegetation as well as sensitive or rare plants. Table C2-1 lists plant species observed or likely to occur in the MCMA. Wildlife is relatively abundant throughout the three watersheds, and consists of macro fauna that maintain large to small ranges. Tables C2-2 through C2-5 summarize common bird, mammal, invertebrate, amphibian and reptile species observed or likely to occur in the MCMA.

Glacier Creek Watershed

The Glacier Creek watershed contains dominant vegetation, such as grand fir, subalpine fir (*Abies lasiocarpa*), cedar, and slide alder with an understory of blueberry, huckleberry (*Vaccinium* sp.), and moss. Seasonal to permanent waterways including seeps and lakes generally support a fringe of riparian or wetland vegetation consisting of alder, Devil's club, salmonberry, vine maple, willow (*Salix* sp.), and grasses. These riparian habitats support macroinvertebrate populations, which provide food for fish, reptiles, amphibians, and birds.

Seventysix Gulch Watershed

Dominant vegetation in the Seventysix Gulch watershed consists of Douglas-fir, true firs, hemlock, and cedar with an understory of salmonberry (*Rubus*

spectabilis), vine maple (*Acer circinatum*), red elderberry (*Sambucus racemosa*), Devil's club (*Oplopanax horridus*), ferns, and grasses.

Weden Creek Watershed

The Weden Creek watershed contains dominant vegetation including Western hemlock (*Tsuga heterophylla*), Western redcedar (*Thuja plicata*), Douglas-fir (*Pseudotsuga menziesii*), grand fir (*Abies grandis*), other true firs, and red alder (*Alnus rubra*) with an understory of plants similar to Seventysix Gulch.

Many terrestrial wildlife populations are transitional within a defined home range, and occupy different areas based on food sources, shelter and reproductive needs. Individual mammal and bird species or populations residing in the MCMA likely use multiple watersheds to meet their development needs. Species, such as amphibians and reptiles, maintain a smaller home range, and move to new habitats when food is scarce, natural disaster relocates their population, or to meet other growth and development needs. Use of all three watersheds by large mammals (deer, bear, mountain lion) is evident throughout the MCMA. Evidence of small (pika, mice) and other large mammal use can also be seen throughout the MCMA. In addition, terrestrial birds are often heard but may not be seen and occupy various portions of the site year round.

Common terrestrial wildlife species known to inhabit the site on a seasonal to permanent basis include, but are not limited to: Columbia black-tailed deer (*Odocoileus hemionus*), black bear (*Ursus americanus*), mountain lion (*Felis concolor*), deer mouse (*Peomyscus maniculatus*), pika (*Ochotona princeps*), tailed frog (*Ascaphus truei*), Cascades frog (*Rana cascadae*), Western toad (*Bufo boreas*), harlequin duck (*Histrionicus histrionicus*), northern flicker (*Colaptes aurantus*), northern goshawk (*Accipiter gentilis*), olive-sided flycatcher (*Contopus borealis*), pileated woodpecker (*Dryocopus pileatus*), northern spotted owl (*Strix occidentalis*), willow flycatcher (*Empidonax traillii*), and a variety of terrestrial invertebrates. Lists of common species known or likely to occur in the MCMA are included in Tables C2-1 through C2-5.

Mining-disturbed habitats generally supported more limited plant and animal communities than the surrounding natural habitats. Although field observations of mine and waste rock locations (Attachment A) showed fairly robust vegetation in some localized areas, most disturbed habitats had no to sparse vegetative cover. Few birds or mammals were observed in the disturbed habitats, while no amphibians or reptiles were observed in disturbed habitats. Few terrestrial invertebrates (e.g., spiders, slugs) were observed in disturbed habitats and no subterranean invertebrates (i.e., earthworms) were observed

during excavation of mine feature soil sample pits associated with TEE observations.

2.1.3 Sensitive Species

Federal and state threatened, endangered, and sensitive plant and animal species are known or likely to occur in the MCMA. In addition to threatened, endangered, and sensitive species, several candidate species, monitor species, and species of concern are also expected to occur at or near the site. Sensitive species have been grouped for the three watersheds and Table C2-6 summarizes threatened, endangered, and sensitive species that may occur in the MCMA.

Many of the mammals and birds identified on federal and state lists have wide ranges and are likely present on a seasonal permanent basis depending on a variety of ecological conditions such as food, shelter, and reproductive needs. Limited information is available on the movements of individual species including grizzly bear (*Ursus arctos*), gray wolf (*Canis lupus*), Canada lynx (*Lynx canadensis*), Columbia black-tailed deer (*Odocoileus hemionus*), and wolverine (*Gulo gulo*), among others.

Several sensitive herpetiles (reptiles and amphibians) are documented as occurring within Snohomish County. Of these, tailed frog (*Ascaphus truei*), Cascades frog (*Rana cascadae*), Western toad (*Bufo boreas*), and Oregon spotted frog (*Rana pretiosa*) are expected to occur on or in the vicinity of the MCMA at locations containing aquatic, riparian, and terrestrial characteristics that will support localized populations.

Numerous threatened and sensitive plant species are documented in Snohomish County. Two of these species, boreal bedstraw (*Galium kamtschaticum*) and whitebark pine (*Pinus albicaulis*), are expected to occur as localized populations throughout the county. It is possible that other species are present on or in the immediate vicinity of the MCMA.

2.2 Exposure Assessment

This section delineates the MCMA into ecological exposure areas, describes methods used to calculate the reasonable maximum soil exposure point concentrations (EPCs), and presents a terrestrial ecological conceptual site model (CSM) where complete and significant ecological exposure pathways are identified.

2.2.1 Delineation of Ecological Exposure Areas

The MCMA covers approximately 5,815 acres of the 12,500 acre South Fork Sauk River Watershed. Wildlife use of the MCMA may be affected by factors such as topography and distance. For example, voles potentially inhabiting the Glacier Creek Watershed are unlikely to migrate to the Seventysix Gulch Watershed because the talus slopes forming the ridge between these two watersheds may act as a physical barrier. In addition, different sources of contamination (e.g., tailings versus waste rock) may affect ecological exposures. For example, the fine-grained texture of tailings versus the coarse-grained texture of waste rock conceivably could affect the bioavailability of soil contaminants[1] These three factors (topography, distance, and contaminant source) were used to delineate ecological exposure areas for the MCMA. Five ecological exposure areas were identified (Figures 4A through 4C) as follows:

- Area 1: Processing Area
- Area 2: Lower Watershed Area
- Area 3: Upper Glacier Creek Watershed
- Area 4: Upper Seventysix Gulch Watershed
- Area 5: Weden Creek Watershed

Area 1 includes the main sources of concentrated ore and processed ores, the Ore Collector, Haulage Road, and Concentrator. The Assay Shack is included in Area 1 because of its proximity to these source areas. Areas 2, 3, 4, and 5 have open and closed adits and waste rock piles as the primary contaminant sources. The lower portions of the watersheds are geographically interconnected.

2.2.2 Derivation of Exposure Point Concentrations

Soils data collected from 2005 through 2011 are included in this TEE. Although a few soil samples were collected as early as 2002, most samples were collected between 2005 and 2011. Potential sources of contamination have been in place since at least the 1920s in Glacier Creek and Seventysix Gulch watersheds and since the 1950s in Weden Creek when mining operations ceased. Concentrations of constituents in soil at the MCMA are considered to be relatively stable. Therefore, the historical data collected between 2005 and

[1] Gradation of the waste affects potential exposure via incidental ingestion of soil by wildlife, and via potential reactivity that may cause phytotoxicity to plants. Both incidental ingestion during foraging, and incidental ingestion while cleaning of fur or plumage is anticipated to increase as the grain-size of the soil becomes finer. Finer grained particles have more surface area per unit weight compared to coarse-grained particles, which increases reactivity (e.g., oxidation of sulfide minerals that decreases pH and increases solubility and bioavailability of metals).

2011 were considered suitable for characterizing the soil chemical concentrations at the MCMA.

All 2011 soil samples were either collected from the 0- to 6-inch interval, representing surface soil conditions, or were collected from the 6- to 12-inch interval representing subsurface soil conditions. Although many samples collected before 2011 were also collected from these same intervals, some samples were collected from other subsurface intervals (e.g., 1.5 to 2 feet, 6 to 6.5 feet). Only soil samples collected from intervals starting at less than or equal to 6 feet were used to characterize ecological exposures. The 0- to 6-foot soil interval corresponds to the assumed biologically active zone and represents the conditional point of compliance (WAC 173-340-7490(4)(a)). Data from the 0- to 6-foot interval were pooled to estimate the EPCs for each ecological exposure area.

The soils data used to calculate the reasonable maximum EPCs are shown in Attachment B. Although most soil samples were discrete samples, two samples (COL-09 (6-6.5) and Potomac 1) were composite samples. These composite samples were included in the soils database.

The reasonable maximum EPCs were calculated using EPA's ProUCL version 4.00.005[2] statistical software using the upper confidence limit (UCL) option. The UCL option was run in the "with non-detects" mode to accommodate datasets containing undetected values[3]. ProUCL output files of general statistics and UCL estimates are provided in Attachment C. Attachment C also contains tables of summary statistics for constituents in each ecological exposure area which were also derived using ProUCL.

2.2.3 Ecological Conceptual Site Model (CSM)

The CSM identifies the contaminant sources, release/transport mechanisms, impacted media, routes of exposure, and receptors. A summary CSM was presented in the Phase 1 Spatial Analysis Summary Report (Hart Crowser 2011) and is refined here to characterize the exposure of terrestrial receptors to soil-borne constituents.

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[2] Available online at http://www.epa.gov/esd/tsc/TSC_form.htm.

[3] ProUCL recommends the dataset contain a minimum of eight to ten samples to calculate a UCL. However, ProUCL will calculate a UCL with datasets containing at least five samples, but warns the user that too few samples may be available to calculate a reliable UCL. ProUCL will not calculate a UCL when less than five samples are available. All of our datasets had a minimum of five samples.

Sources of contamination include waste rock, tailings, and facilities where mining and ore concentrating activities occurred. The primary release mechanisms to soil include wind erosion of fine particles and water erosion. The primary impacted media considered in this evaluation is soil. Plants and soil biota may accumulate constituents from affected soil and then be consumed by animals. Plants and soil biota are secondary impacted media.

Plants primarily accumulate soil-borne constituents in their tissues through direct uptake by roots from the soil. Constituents dissolve in the soil pore water where they can then be absorbed by the roots. Wind-borne dust may accumulate on leaf surfaces.

Soil biota can accumulate soil-borne constituents in their tissues through direct uptake and through the ingestion of soil. Like plants, metals dissolved in soil pore water may be absorbed across the outer membrane of invertebrates and accumulate in their tissues. Some soil invertebrates ingest soil and/or soil organic matter and may absorb dissolved constituents across the gut membrane.

Birds and mammals become exposed to constituents present in soil through two primary exposure pathways:

- Incidental ingestion of soil during foraging or purposeful ingestion of soil to meet nutritional requirements; and
- Ingestion of prey that have accumulated constituents from the soil.

The TEE only considers exposure of birds and mammals to constituents present in soil because the goal of the TEE is to develop soil cleanup levels. Although terrestrial wildlife may drink surface water, this is typically a minor pathway of exposure. Although birds and mammals may be exposed to high levels of bioaccumulative constituents through the consumption of aquatic biota from contaminated areas, this pathway is not considered in the TEE process.

Once ingested, constituents may be dissolved from the mineral soil and then absorbed across the gut membrane of birds and mammals. Likewise, constituents accumulating in plants and soil biota may be dissolved in the gut once they are consumed and subsequently absorbed across the gut membrane.

The inhalation and dermal contact exposure pathways for wildlife may be complete, but they are considered insignificant. This is consistent with EPA's approach for developing the national ecological soil screening levels (EcoSSLs) (EPA 2003f). The rationale for this approach is:

- Burrowing animals could be exposed to relatively high concentrations of volatile organic compounds (VOCs) in their burrows via inhalation. However, none of the constituents at the MCMA are VOCs and the long duration since mining operations ceased (1920) means that the residual volatile fraction of constituents should have already volatilized. Therefore, inhalation of volatilized constituents is not considered to be a significant pathway of exposure.
- Soil particles containing mining-related constituents may be inhaled by wildlife. However, respirable particles are most likely ingested as a result of mucocilliary clearance rather than being inhaled. Evidence (EPA 2003f) suggests that inhalation exposure is less than 0.1 percent of the oral exposure. Therefore, inhalation of constituents associated with particulates is not considered to be a significant pathway of exposure.
- Birds and mammals may be exposed to constituents in soil via dermal contact. However, scientific information to quantify this pathway is lacking. Evidence suggests that dermal exposure is less than 1 to 11 percent of the exposure due to ingestion (EPA 2003f). The contribution of the dermal route to the total dose estimate made by EPA was based on an exposure model for the meadow vole. According to EPA, meadow voles do burrow when excavating nests/resting areas, and when seeking shelter from severe weather. Although not specifically mentioned in the TEE discussion of dermal absorption, EPA also notes that dermal absorption of metals across the skin is considered a minor pathway because metals tend to be strongly bound in the soils and have a relatively low tendency to cross the skin. Therefore, dermal contact with soil-borne constituents is not considered to be a significant pathway of exposure.

Figure C-5 shows the ecological CSM for the terrestrial habitats at the MCMA.

2.3 Receptors of Concern

The default receptors of concern used to evaluate terrestrial ecological hazards under MTCA are plants, soil biota, and wildlife. Plants and soil biota are broad receptor categories. The default MTCA EISCs used to evaluate hazards to these receptors (MTCA Table 749-3) are assumed to be protective of most species of plants and soil biota.

The default MTCA EISCs used to evaluate hazards to wildlife (MTCA Table 749-3) are assumed to be protective of all or most species of birds and mammals. The wildlife EISCs were derived using exposure models for three species: the vole, shrew, and robin (MTCA Table 749-4). The vole is an herbivore and is exposed to constituents through the ingestion of plants that accumulate constituents from the soil as well as direct ingestion of soil. The

shrew and robin are insectivores and are exposed to constituents through the ingestion of soil invertebrates that accumulate constituents from the soil and the direct ingestion of soil. These three species have relatively small home ranges, high food ingestion rates, and forage on prey that is in direct contact with soil (plants and soil biota). Therefore, these three species are assumed to be highly exposed to constituents in soil.

As noted in Section 2.1.2, numerous species of birds and mammals potentially inhabit the MCMA. Upper trophic-level predators such as the weasel and red-tailed hawk have relatively large home ranges and forage on small mammals which are not expected to accumulate high levels of constituents (i.e., metals/metalloids) in their tissues[4]. Likewise, larger herbivores such as deer have large home ranges and are not expected to be as highly exposed as herbivores with small home ranges such as the vole. Other insectivores such as most insect-eating birds (e.g., warblers, wrens, swallows) and bats feed upon invertebrates that may not be highly exposed to constituents in soil (e.g., moths that live and feed on plants) and will not accumulate constituents to levels found in soil-dwelling invertebrates. Therefore, the default MTCA wildlife receptors of concern (vole, shrew and robin) are likely to be more highly exposed to constituents in soil than most other species of birds and mammals.

Several sensitive wildlife species occur within the MCMA (Section 2.1.3). None of these species is expected to be more highly exposed to constituents in soil at the site than the default MTCA receptors. Although MTCA does not require a change in the site-specific TEE methodology when sensitive species may be present, typically, ecological assessments afford additional protection for sensitive species. The potential impact of the presence of sensitive species on the results of the TEE is discussed in the uncertainty section of hazard characterization (Section 4.2).

Based on the preceding discussion, the MTCA default ecological receptors (i.e., plants, soil biota, vole, shrew, and robin) are retained as the receptors of concern for the site-specific TEE of the MCMA.

2.4 Toxicity Assessment

This section includes a description of potential effects of COPECs, the identification of ecological indicator soil concentrations (EISCs) used for

[4] EPA 2007b derived that soil to small mammal bioaccumulation factors (BAFs) for six metals and BAFs ranged from 0.004 to 0.05. Bioaccumulative constituents have bioaccumulation factors greater than one.

identifying COPECs, and the assessment and measurement endpoints used in this site-specific TEE.

2.4.1 Potential Effects of Constituents of Potential Ecological Concern

The COPECs are identified in Section 2.5 for each ecological exposure area and a total of 16 COPECs were identified at one or more ecological exposure areas. These COPECs may affect plants, soil biota, and wildlife in a variety of ways. Several on-line sources of comprehensive ecotoxicological information describe the effects of COPECs on plants, soil biota, and wildlife.

- Contaminant Hazard Review Reports by the U.S. Fish and Wildlife Service available at http://www.pwrc.usgs.gov/infobase/eisler/reviews.cfm
- Environmental Contaminants Encyclopedia by the National Park Service available at http://www.nature.nps.gov/hazardssafety/toxic/index.cfm
- Toxicity profiles in the Risk Assessment Information System by the U.S. Department of Energy available at http://rais.ornl.gov/tools/tox_profiles.html
- Toxicity profiles on the Ecological Toxicity Information website for U.S. EPA Region 5 available at http://www.epa.gov/R5Super/ecology/html/toxprofiles.htm#as
- Toxicity Literature Online (TOXLINE) by the U.S. National Library of Medicine includes ecotoxicology information and is available at http://toxnet.nlm.nih.gov/cgi-bin/sis/htmlgen?TOXLINE
- Ecotoxicological Profiles for Selected Metals and Other Inorganic Chemicals by the U.S. Department of Energy Oak Ridge National Laboratory available at http://www.esd.ornl.gov/programs/ecorisk/guidance_docs.html

2.4.2 Ecological Indicator Soil Concentrations

EISCs are soil concentrations below which ecological hazards are deemed to be acceptable. EISCs represent threshold concentrations below which adverse impacts to individual organisms are unlikely to occur. The EISCs used in Section 2.5 to identify the COPECs come from MTCA Table 749-3. EISCs were developed for plants, soil biota, and wildlife and the lower of these EISCs was selected as the final EISC to help identify COPECs (Table C2-7).

2.4.3 Assessment and Measurement Endpoints

MTCA supports the use of endpoints to help frame the approach for the site-specific TEE. An endpoint is a characteristic of an ecological component that may be affected by exposure to a hazardous substance. The EPA defines two types of endpoints: assessment and measurement (EPA 1997b). An assessment endpoint is an explicit expression of the environmental value that is to be protected. A measurement endpoint is a measurable ecological characteristic that is related to the valued characteristics chosen as the assessment endpoint and is a measure of biological effects. The assessment and measurement endpoints identified for the MCMA TEE are shown in Table C2-8.

2.5 Identification of Constituents of Potential Ecological Concern

COPECs were identified for each ecological exposure area by comparing the EPCs (Section 2.2.2) to the default EISCs (Section 2.4.2) and natural background. The EPCs for each constituent had to exceed the corresponding EISC and natural background to be identified as a COPEC.

2.5.1 Natural Background Comparison Methods

Background comparisons were made to test the hypothesis that the mean/median concentrations of constituents in soil samples from the ecological exposure areas identified in Section 2.2.1 were less than or equal to the mean/median concentrations in samples from natural background areas. The software and statistical methods recommended in EPA's ProUCL statistical software package were used to make the background comparisons[5].

Nonparametric hypothesis testing methods were used for making the background comparisons. Nonparametric methods were selected because:

- They can be used on data sets with normal and non-normal distributions.
- They have good performance for a wide variety of data distributions.
- They are not unduly affected by outlier observations.
- They can handle data sets with nondetect values.

Following EPA's ProUCL recommendations, the nonparametric Wilcoxon-Mann-Whitney (WMW) test was used when less than 40 percent of the samples from

[5] ProUCL version 4.00.005 software and supporting documentation are available online at http://www.epa.gov/esd/tsc/software.htm.

either the MCMA or background data sets contained nondetect values[6]. However, the WMW test was not used on data sets with multiple detection limits. A two-sample WMW test in the "Full" mode was run on data sets with all detections, while a two-sample WMW test in the "with NDs" mode was run on data sets with non-detections > 0 percent and < 40 percent. A two-sample Gehan test was used when 40 percent or more of the samples from either the MCMA or background areas were nondetect values ("with NDs" mode). The Gehan test was also used when multiple detection limits were present in either the MCMA or background data sets. Table C2-9 shows the process used for selecting the background test statistic for each constituent at each ecological exposure area.

ProUCL background comparison output files are provided in Attachment D.

2.5.2 Constituent of Potential Ecological Concern

The COPECs for each ecological exposure area are identified in Tables C2-10 through C2-14.

Table C2-15 presents a summary of the COPECs. A total of 17 COPECs were identified at one or more ecological exposure areas and include aluminum, antimony, arsenic, barium, cadmium, chromium, cobalt, copper, iron, lead, manganese, mercury, nickel, selenium, silver, thallium, and zinc. Ecological exposure Area 1 (Process Area) had the highest number of COPECs (13), while Area 5 (Weden Creek Watershed) had the fewest COPECs (7). Copper, iron, and zinc were COPECs at all five areas, while beryllium and vanadium were not COPECs at any area.

3.0 DERIVATION OF ALTERNATIVE ECOLOGICAL INDICATOR SOIL CONCENTRATIONS

This section identifies alternative EISCs for plants, soil biota, and wildlife. These alternative EISCs are used to refine the hazard estimates for each ecological exposure area in the hazard characterization (Section 4.0).

[6] Although ProUCL recommends the Quantile test be run in parallel with the Wilcoxon-Mann-Whitney test, the Quantile test is only used to detect a shift to the right in the right tails of the site and background data sets. Since the Quantile test has several statistical limitations that may apply to MCMA site data sets, it was not used in the background comparisons.

3.1 Alternative Indicator Soil Concentrations for Plants and Soil Biota

The MTCA default EISCs for plants and soil biota (MTCA Table 749-3) come from the Oak Ridge National Laboratory (ORNL) toxicological benchmarks for plants (Efroymson et al. 1997a) and soil biota (e.g., earthworms) (Efroymson et al. 1997b). For both plants and soil biota, ORNL conducted literature searches to identify appropriate toxicity studies (Efroymson et al. 1997a, 1997b). The general criteria used to identify acceptable toxicity studies were:

1) The methodology was clearly stated (especially concentrations of applied chemicals) and followed in the experiment.

2) Results were quantified as measures of growth or yield for plants (e.g., weight, height), measures of metabolic activity or tissue chemical concentration were used if measures of growth or yield were not available for a particular chemical of interest, and measures of survivorship, growth, respiration, reproduction, substrate transformation, or enzyme activity for earthworms.

3) Results were presented in numeric form or graphical presentations of data were clearly interpretable.

4) An unambiguous reduction existed in the measured parameter within the range of applied concentrations of the chemical of interest.

Growth or yield was selected as ecologically relevant endpoints for plants (Efroymson et al. 1997a). Virtually all of the plant toxicity studies were conducted using agronomic crops (lettuce, radish, beans, wheat, etc.). Growth, reproduction, or activity was selected as the ecologically relevant endpoints for soil invertebrates (Efroymson et al. 1997b). Toxicity data for earthworms was used to characterize adverse effects to soil biota. A 20 percent reduction in the endpoint was considered ecologically significant and was used as the lowest observed adverse effect concentrations (LOAEC). Acceptable LOAEC toxicity values were rank ordered and the approximate 10th percentile of the distribution was selected as the benchmark. Confidence in each benchmark was ranked as low ($n \leq 10$), medium ($n > 10$ and $n \leq 20$), or high ($n>20$) where n is the number of LOAECs used to derive the benchmark.

Table C3-1 shows the default MTCA EISCs for plants and soil biota obtained from ORNL (Efroymson et al. 1997a, 1997b). Table C3-1 also shows the confidence associated with each EISC and most EISCs were assigned a low confidence.

The most recent and comprehensive sets of EISCs for plants and soil biota were derived by EPA as part of the EcoSSLs program. The EcoSSLs are concentrations of constituents in soil that are protective of ecological receptors that commonly come into contact with soil or ingest biota that live in or on soil. These values can be used to identify those COPECs in soils that may require further evaluation in a baseline ecological risk assessment.

EPA (2003a) conducted a comprehensive literature search to identify and acquire potentially relevant toxicology literature for use in setting EcoSSLs for plants and soil invertebrates. Once the literature was assembled, the following process was used to derive EcoSSLs for plants and soil invertebrates (EPA 2003b):

1) Toxicity studies were reviewed and scored using nine experimental quality criteria. Each criterion was scored 0, 1, or 2 with 2 being the highest score. A minimum score of 10 was required to conclude the study was acceptable.

2) A minimum of three acceptable toxicity values were required to derive an EcoSSL.

3) Only toxicity data for ecologically relevant endpoints was used. Endpoint preference was reproduction > population > growth. However, most of the plant toxicity studies used the endpoint of biomass production.

4) If data for more than one toxicity parameter were reported for a study, a preferred toxicity value was selected based on the following hierarchy: effects concentration 20 (EC20) > maximum allowable threshold concentration (MATC) > effects concentration 10 (EC10), where EC20 and EC10 are effect concentrations for 20 and 10 percent of the population and the MATC is the maximum acceptable threshold concentration. The MATC was calculated as the geometric mean of the No Observed Adverse Effect Concentrations (NOAEC) and the LOAEC.

5) The EcoSSL was calculated as the geometric mean of at least three acceptable toxicity values.

EPA used toxicity studies on earthworms, potworms, springtails, and nematodes to characterize adverse effects on soil invertebrates. Virtually all of the plant toxicity studies were conducted using agronomic crops (lettuce, radish, beans, wheat, etc.).

Kapustka et al. (2006) updated the plant EcoSSLs for cobalt and nickel in a study sponsored by the EPA to fill some data gaps identified in the earlier EcoSSLs.

Although the EcoSSLs from the Kapustka study have not been formally adopted as the national EcoSSLs by EPA, their study used multiple test soils, multiple plant species, and a rigorous experimental design. Therefore, the plant EcoSSLs for cobalt and nickel derived by Kapustka et al. (2006) were selected as alternative EISCs.

The process used by EPA to derive the EcoSSLs for plants and soil invertebrates is considered to be scientifically defensible and state of the art. Therefore, EPA's EcoSSLs for plants and soil invertebrates are selected as alternative EISCs and are shown in Table C3-1.

3.2 Alternative Indicator Soil Concentrations for Wildlife

MTCA uses three surrogate wildlife receptors to derive EISCs protective of wildlife: the vole, shrew, and robin (WAC 173-340 Table 749-4). Exposure models are used to derive the EISC for each surrogate species and the lowest EISC was selected as the wildlife EISCs presented in Table 749-3 of MTCA. The general model used to derive the wildlife EISCs is shown in Equation 1.

Equation 1:

$$EISC = \frac{TRV}{[(FIR \times P \times BAF) + (SIR \times RGAF)]}$$

Where:

EISC = ecological indicator soil concentration (mg/kg)
TRV = toxicity reference value (mg/kg /day)
FIR = food ingestion rate (kg dry food/kg body weight/day)
P = proportion of contaminated food in diet (unitless)
BAF = bioaccumulation factor (unitless)
SIR = soil ingestion rate (kg dry soil/kg body weight/day)
RGAF = gut absorption factor for constituent in soil (unitless)

MTCA assumes a default RGAF value of one for deriving wildlife EISCs (WAC 173-340 Table 749-5). The RGAF is expressed as the proportion of gut absorption of a constituent in soil relative to the gut absorption of the constituent in food and is a measure of relative bioavailability. Soils have long been known to affect the bioavailability of constituents which may bind to the solid phases of soil to varying degrees (NRC 2003). However, limited published information exists that characterizes the bioavailability of metals in soil to wildlife (birds and mammals). In addition, the relatively low pH measured in MCMA soil may affect the bioavailability of metals in the soil. Therefore, it is not possible to

justify the use of alternative RGAFs and the default RGAF of one is used to derive alternative wildlife EISCs.

MTCA uses P values of 0.50 for the shrew, 1.0 for the vole, and 0.52 for the robin (WAC 173-340 Table 749-4). The P value for the shrew is based on a published article analyzing the proportion of ground-dwelling prey measured in the diet of shrews, while the P value for the robin is based on a published article evaluating the proportion of feeding events occurring at ground level (Ecology 2000). The site-specific diets of shrews and robins vary with season and prey availability. For example, EPA (1993) characterizes the diet of robins in the western United States as consisting primarily of invertebrates during the spring and summer and consisting primarily of fruit during the fall and winter. Therefore, it is not possible to justify the use of alternative P values for shrew and robin at the MCMA site. The P value for the vole is based on the assumption that all the plants consumed are growing in soil from the site. This is a reasonable assumption and use of an alternative P value for the vole cannot be justified.

Although EPA derived EISCs protective of wildlife, these values are not appropriate for use in Washington State because they were not derived in a manner consistent with the TEE process. Besides using somewhat different receptor species, EPA used TRVs for birds and mammals that represented no observed adverse effects levels (NOAELs), while MTCA used lowest observed adverse effects levels (LOAELs) as the TRVs. EPA's EcoSSL TRV datasets for birds and mammals are considered the most recent and comprehensive available. Furthermore, EPA derived state of the art values for three wildlife exposure parameters: FIRs, SIRs, and BAFs.

Alternative values for four model parameters are evaluated in Sections 3.2.1 (TRVs), 3.2.2 (BAFs), and 3.2.3 (FIRs and SIRs).

Alternative wildlife EISCs cannot be calculated before hazard characterization because many of the plant and earthworm BAFs are based upon regression equations that require the input of site-specific soil EPCs (see Section 3.2.2). Therefore, alternative wildlife EISCs are presented in the hazard characterization for each ecological exposure area (Section 4.0, Tables C4-1 through C4-5).

3.2.1 Alternative Wildlife Toxicity Reference Values

The ORNL's Toxicological Benchmarks for Wildlife report (Sample et al. 1996) was the source of most of the wildlife TRVs shown in MTCA Table 749-5 (Ecology 2000). The LOAEL values were selected from Sample et al. (1996) and used to derive the wildlife EISCs shown in MTCA Table 749-3. Sample et al.

(1996) reviewed the toxicological data from several sources and selected the most appropriate value for each constituent. The rationale for selecting a specific toxicity study as the basis of TRV derivation was not specifically stated, but preference was given to studies using reproduction and development endpoints, chronic exposure periods, and multiple exposure levels.

The ORNL TRVs for mammalian species of wildlife were selected from studies conducted primarily on laboratory rodents, and TRVs for avian species were selected from laboratory studies on domestic and wild birds. Many toxicity studies reported exposure as constituent concentrations in food or water that were converted to a dose using estimates of food and water ingestion rates for the test animals. In cases where the toxicity study did not represent chronic exposure, the TRVs were adjusted using uncertainty factors.

The selected source for alternative bird and mammal TRVs is EPA's EcoSSL documents[7]. This approach is consistent with recent Ecology recommendations (Sloan 2011). The toxicological data used by EPA to derive the wildlife TRVs is relatively current, comprehensive, and is state of the art. EPA conducted comprehensive literature surveys and identified ecotoxicity publications meeting specific scientific criteria for use in deriving TRVs for birds and mammals (EPA 2003c). A preliminary review of each article was conducted to determine if the article contains data suitable for TRV derivation. For example, studies based on acute exposure, reporting results for dead animals, using mixtures of constituents, studies lacking experimental controls, studies not reporting a test duration, and studies reporting data from research not conducted by the author were deemed unsuitable. Each study was then reviewed in detail and scored using ten data quality criteria (EPA 2007a). Total scores range from 0 to 100 and a minimum score of 66 was required for acceptance of the study. Finally, NOAEL and LOAEL TRVs were derived for each study and expressed as a daily dose of constituent (mg/kg - day).

The alternative bird and mammal TRVs were based on LOAEL toxicity data following MTCA methodology (WAC 173-340-7493(4)(a)). Toxicity data for growth, reproduction, and survival endpoints were used. A minimum of three acceptable toxicity values were needed to derive an alternative TRV consistent with EPA EcoSSL methodology (EPA 2003c, 2007a). Only bounded LOAEL values[8] were used because studies that did not report a NOAEL were

[7] Available online at http://www.epa.gov/ecotox/ecossl/.

[8] Bounded toxicity data are data that include both NOAEL and LOAEL values. Studies that report a LOAEL, but not a NOAEL are limited by the fact that the range between the NOAEL and LOAEL are unknown and, therefore, it is difficult to interpret the LOAEL value. EPA (2007a) uses the bounded toxicity data concept in developing wildlife TRVs for the EcoSSL Program.

considered unacceptable. The tenth percentile value of the selected LOAELs was selected as the alternative TRV. The tenth percentile value is considered sufficiently protective and reduces uncertainties associated with toxicity values occurring at the extremes of the data distribution (i.e., data outliers).

The default MTCA TEE process used body scaling to adjust the mammalian TRVs from the toxicity test species (e.g., a mouse or rat) to the surrogate receptor (i.e., the vole and shrew) (Ecology 2000). Body scaling was not applied to birds because scientific data were insufficient to support body scaling. EPA did not use body scaling to adjust TRVs for mammals or birds for the derivation of the EcoSSLs (EPA 2007a). Furthermore, most of the toxicological data used by EPA for EcoSSL mammalian TRVs were based on studies using mice and rats whose body weight is similar to the vole and shrew. It is concluded that body scaling would have little effect on the alternative TRV. Therefore, body scaling was not applied to the derivation of alternative mammalian TRVs for the MCMA TEE[9].

Alternative bird and mammal TRVs are shown in Table C3-2. Supporting information showing how these TRVs were derived is provided in Attachment E.

3.2.2 Alternative Bioaccumulation Factors

The MTCA model used to derive wildlife EISCs (Equation 1) requires input of constituent-specific BAF values. MTCA provides default BAFs for plants and soil biota in MTCA Table 749-5 and their derivation is explained in the Technical Addendum to MTCA Sections 7490-7493 (Ecology 2000). The plant BAFs were obtained from EPA's Technical Support Document for the Land Application of Sewage Sludge (EPA 1992). The default plant BAFs were calculated as the geometric mean of uptake factors for forage grasses reported in EPA (1992). The soil concentration was estimated from an application rate reported in kg/ha divided by two. For metals/metalloids that were not addressed by EPA (1992), a default plant BAF of 1.01 was assumed based on the BAF for molybdenum, which was the highest value reported for a metal/metalloid constituents by EPA (1992). The MTCA default soil biota BAFs were derived from selected publications for individual constituents. These studies were typically conducted using earthworms and if more than one value was available, the average value was used as the default soil biota BAF. For metal/metalloid constituents for which a study was not found, a default soil BAF of 4.6 was used based on the

[9] Since the alternative TRVs for birds and mammals were calculated as the tenth percentile of acceptable LOAELs for growth, reproduction, and survival, the alternative TRVs cannot be associated with a single study or test species. Therefore, body scaling cannot be applied to the alternative TRVs.

BAF for cadmium, which was the highest value of any metal/metalloid constituent found.

EPA selected a different set of plant and soil biota BAFs for use in developing the national EcoSSLs for wildlife (EPA 2007b). Soil-to-biota bioaccumulation uptake equations, both as simple ratios (BAFs) or as regression equations, have recently been developed from published data for earthworms (Sample et al. 1998, 1999) and terrestrial plants (Bechtel-Jacobs 1998). Databases of bioaccumulation data from acceptable published sources were presented and bioaccumulation equations were developed in these three publications. Bioaccumulation equations presented in these reports were selected by EPA as the primary means for estimating concentrations of inorganic contaminants in wildlife dietary items. If both a chemical-specific BAF and a chemical-specific regression equation were available for a given constituent, the regression equation was selected for application provided the equation was significant (i.e., the slope differed significantly [$p<0.05$] from 0) and the coefficient of determination (R^2) was greater than or equal to 0.2. Regression equations are considered better predictors of bioaccumulation because bioaccumulation is often shown to be non-linear. If these criteria were not met, the median BAF was used to estimate bioaccumulation.

The BAFs and bioaccumulation equations selected by EPA (2007b) are considered more up to date and robust than the default MTCA BAFs and were selected as alternative methods for estimating bioaccumulation of constituents into plants and soil biota. The alternative bioaccumulation equations are shown in Table C3-3.

3.2.3 Alternative Wildlife Exposure Parameter Values

Exposure parameters required to calculate EISCs for FIR, P, BAF, SIR and gut RGAF (see Equation 1). Alternative BAFs are described in Section 3.2.2. The default P and RGAF values are retained for calculating alternative wildlife EISCS for reasons stated in Section 3.2. The default values for FIR and SIR for the shrew, vole and robin (MTCA Table 749-4) were selected from published sources (Ecology 2000). The default FIR and SIR values for the vole and robin come from EPA's Wildlife Exposure Factors Handbook (EPA 1993), which provides a compendium of acceptable values. The FIR and SIR values for the shrew were obtained from the published scientific literature.

EPA used the shrew, vole, and woodcock to help derive the EcoSSLs protective of birds and mammals (EPA 2007b). Although the woodcock occupies the same feeding guild as the robin (i.e., avian insectivore), it can weigh twice as much as

a robin and is not native to Washington State (EPA 1993). Therefore, the woodcock is not a suitable alternative receptor for the robin.

EPA (2007b) reviewed the scientific literature for data on FIR for the shrew and vole. High end estimates (estimated to be the 90th percentile, assuming a normal distribution) were calculated for each study. The arithmetic mean of the high-end estimates of FIR was selected as the high end point estimate FIR (n=3 for the vole and n=5 for the shrew). For the SIR, EPA (2007b) estimated a high-end value for each species using a four-variable equation (Equation 2). Input parameter values for the four variables that characterized their distributions were obtained from published scientific literature. A Monte Carlo simulation using the input parameter values for the four variables was used to estimate the 90th percentile SIR[10].

Equation 2:

$$P_s = \frac{(b - y + a \times y)}{(a \times y - c + b)}$$

Where:

P_s = proportion of soil in diet (g soil per g dry mass diet)
a = digestibility of food (g absorbed per g dry mass ingested)
b = concentration of acid-insoluble ash in food (g per g dry mass)
c = concentration of acid-insoluble ash in soil (g per g dry mass)
y = concentration of acid-insoluble ash in scat (g per g dry mass)

EPA's FIR and SIR values for the shrew and vole (EPA 2007b) were derived in a more rigorous manner than the default MTCA values and are selected as alternative exposure parameter values for the derivation of alternative EISCs. The MTCA default and EPA alternative wildlife exposure parameter values are shown in Table C3-4.

4.0 HAZARD CHARACTERIZATION

This section includes a hazard evaluation where hazard estimates are refined using the alternative EISCs developed in Section 3.0 and an uncertainty analysis.

[10] The SIR is calculated by multiplying the 90th percentile P_s by the FIR.

4.1 Hazard Evaluation

COPECs were identified in Section 2.5.2 by comparing soil EPCs for each ecological exposure area to MTCA default EISCs and natural background. Potential ecological hazard estimates are refined in this section by comparing the EPCs for the COPECs to the alternative EISCs for plants, soil biota, and wildlife developed in Section 3.0. Hazard quotients (HQs) were calculated by dividing the EPC by the alternative EISC. Constituents with HQs greater than one are considered to pose a potential ecological hazard[11].

Tables C4-1 to C4-5 present the EPCs for the COPECs, alternative EISCs, and HQs for each ecological exposure area. Results show that many of the COPECs identified in Section 2.5.2 pose a potential ecological hazard.

Mercury and thallium were not evaluated by EPA as part of the EcoSSL program. Since no further hazard evaluation was possible, results of the COPEC screening (Section 2.5) were used to evaluate ecological hazards from mercury and thallium.

Aluminum was identified as a COPEC in Ecological Exposure Area 5 (see Table C2-14). EPA (2003d) determined that the measurement of total aluminum in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. EPA recommends evaluating the potential ecological hazards associated with aluminum based on the measured soil pH. Aluminum is considered to pose a potential ecological hazard only when the soil pH is less than 5.5. Table C4-6 shows the median pH at Area 5 is 5.9, which is above the EPA threshold of 5.5 and above the median background pH of 4.87. This information indicates that aluminum does not pose an ecological hazard in Area 5.

Iron was identified as a COPEC in ecological exposure areas 1, 2, 3, 4, and 5 (Tables C2-10, C2-11, C2-12, C2-13, and C2-14, respectively). EPA (2003e) determined that the measurement of total iron in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. EPA recommends that site-specific measurements of soil pH and Eh (oxidation/reduction potential) be used to help evaluate the bioavailability and toxicity of iron. In well-aerated soil with a pH between 5 and 8, iron is not expected to be toxic to plants (plants being the most sensitive ecological receptor). Table C4-6 shows the median pH of Ecological Exposure Area 4 is 5.395 and Area 5 is 5.9, which are above the EPA pH threshold value of 5.0 and above the median natural background pH of

[11] As demonstrated in Section 2.5.2, all COPECs have concentrations above natural background.

4.87. This information indicates that iron is not a hazard to plants at Areas 4 and 5. However, iron poses a potential hazard to plants and Ecological Exposure Areas 1, 2, and 3 because the median pH at these areas is below EPA's threshold and the median natural background.

Another perspective for reviewing the ecological hazards is to group them by receptor. Table C4-7 shows that arsenic, copper, lead, and zinc have HQs above one for plants at most ecological exposure areas and HQs are highest for arsenic. Table C4-8 shows that antimony, copper, lead, and zinc pose hazards to soil biota at most areas. Table C4-9 shows that arsenic and lead pose hazards to the vole at most areas, but HQs are highest for arsenic. Table C4-10 shows that antimony, arsenic, cadmium, copper, and lead pose hazards to shrew at most areas, but HQs are highest for antimony, arsenic, cadmium, and lead. Table C4-11 shows that cadmium, copper, and lead pose hazards to robins at most areas, but HQs are highest for lead.

4.2 Uncertainty Analysis

Assumptions exist in many steps of the TEE process that lead to uncertainties in the evaluation. Understanding these uncertainties can help with interpreting the results of the evaluation and enhance remedial decision making. This uncertainty analysis provides a qualitative evaluation of the direction and magnitude of potential sources of uncertainty associated with the site-specific TEE for the MCMA. Uncertainties were grouped into exposure, toxicity, and hazard characterization categories.

4.2.1 Uncertainties Associated with Exposure

The analytical samples used to characterize ecological exposure to site soil were typically collected from locations on or close to known or suspected sources. This high-biased sampling will result in overestimated exposures within each ecological exposure area, but not for the discrete mine waste piles. The magnitude of uncertainty when using this high-biased sampling design is expected to be relatively large.

The size of soil data sets used to calculate EPCs at the MCMA site was acceptable[12] in all but one case. The Area 5 – Weden Creek Watershed

[12] EPA's ProUCL Technical Guide (available online at http://www.epa.gov/esd/tsc/TSC_form.htm) recommends a minimum of eight samples be used for calculating a UCL. However, ProUCL will calculate the UCL for datasets having five, six, seven, or more samples, but caveats the results with the statement "A sample size of n=5 may not be adequate enough to compute meaningful and reliable test statistics and estimates."

Ecological Exposure Area had between five and eight samples per constituent and several constituents had non-detected values. Small sample sizes can adversely affect the estimation of upper confidence levels and EPCs. The magnitude and direction (i.e., underestimation or overestimation) of uncertainty associated with the low number of soil samples in Area 5 is unknown, but expected to be small.

Consistent with MTCA, this TEE assumed that wildlife receptors will use the contaminated portions of each ecological exposure area 100 percent of the time. Most of the source areas (i.e., waste rock piles, tailings piles, and adits) contain little or no vegetation and support a sparse population of soil invertebrates (see Section 2.1). Although the lack of plant and soil invertebrate communities may suggest potential toxicity, it is also likely that other substrate characteristics (i.e., low nutrient levels and low water holding capacity) negatively impact the establishment and maintenance of these communities. These areas provide minimal cover and food resources for most species of birds and mammals that may use the MCMA. These species will preferentially use the adjacent undisturbed habitats where cover, food, and birthing/rearing sites are more plentiful. The limited potential use of the source areas by wildlife reduces their potential exposures and consequent hazards. Expected low wildlife use of the source areas results in a moderate overestimation of hazards to wildlife.

The MTCA TEE process assesses wildlife risks by estimating constituent exposures through the direct ingestion of food and soil. Although wildlife may also become exposed to constituents through inhalation and dermal routes, the ingestion route is considered to contribute most to overall exposure. Although wildlife exposures via the inhalation and dermal routes were not quantified in this TEE and may result in an underestimation of total exposure and risk, the magnitude of this uncertainty is considered to be small.

The wildlife exposure factors used in hazard characterization were food and soil ingestion rates for the shrew, robin, and vole. Default MTCA exposure factors were used for the robin, but alternative exposure factors for the shrew and vole were obtained from EPA (2007b). These values are considered representative for these species, although the actual rates in the field will vary with factors such as season, prey type, prey availability, breeding status, weather conditions, and distance traveled to acquire food. However, use of the literature-based exposure factors is expected to have little influence on the alternative EISCs and subsequent hazard estimates.

The BAFs used in hazard characterization came from EPA's EcoSSL (EPA 2007b). Most of these BAFs were derived from regression equations comparing plant or earthworm tissue concentrations to co-located soil concentrations. The

earthworm BAFs were based on results of field studies at a variety of sites having different sources and concentrations of constituents. BAFs derived from field studies are expected to be representative of sites with a variety of soil characteristics. However, soil conditions at the MCMA site are unusual because of the depressed soil pH associated with the oxidation of mine wastes. Depressed soil pH can increase the bioavailability of some constituents (e.g., copper, zinc), while depressing the bioavailability of other constituents (e.g., arsenic). The magnitude and direction of this uncertainty is unknown.

The BAFs for soil biota were derived for earthworms (EPA 2007b). As described in Section 2.1, earthworms were not observed at the MCMA site and are not expected to be present. The use of BAFs derived for earthworms to estimate the bioaccumulation potential in other soil invertebrates (e.g., beetles, grasshoppers, and ants) is highly uncertain. Due to the lack of information on BAFs for these other soil invertebrates, the magnitude and direction of this uncertainty is largely unknown.

The BAFs for plants (EPA 2007b) were based on published data that included both field and laboratory studies. The laboratory studies included testing of field-collected soil and soil spiked with the constituent. Studies using spiked soil applied the constituent in a highly bioavailable form (e.g., cadmium chloride). BAFs derived from field collected samples and laboratory studies using field collected soil samples are considered to be more representative of BAFs at other field sites. Use of BAFs derived from laboratory tests using constituents applied in a highly bioavailable form are likely to overestimate bioavailability compared to field conditions where constituents are expected to have reached equilibrium with the soil matrix (i.e., the highly bioavailable fraction is assumed to have attenuated and the residual fraction is in equilibrium with the solid and liquid phases of the soil). As impacted soil ages and weather the bioavailable fraction of the constituent (i.e., water soluble fraction) is leached out and a higher proportion of the residual fraction is bound to the solid phase where it is not bioavailable. The magnitude of overestimation of plants BAFs using spiked soil studies is unknown.

This TEE conservatively assumed the gut absorption of constituents associated with ingested soil by wildlife is 100 percent. This assumption will result in an overestimation of exposure and hazards to wildlife. For example, EPA (2007c) estimated the relative bioavailability of soil lead to humans to be about 60 percent. However, since soil ingestion typically accounts for a relatively small proportion of the total exposure (i.e., due to food ingestion), the magnitude of this uncertainty is expected to be modest.

4.2.2 Uncertainties Associated with Toxicity

One major uncertainty in this hazard evaluation is associated with the use of alternative EISCs protective of plants and soil invertebrates. These literature-based toxicity values were often derived using laboratory toxicity tests where plants and invertebrates were exposed to highly bioavailable forms of the constituents (e.g., cadmium chloride). The chemical forms in site soil are expected to be quite different resulting in lowered bioavailability relative to the highly bioavailable forms. However, the depressed pH of soil at the MCMA will also affect bioavailability of many constituents. The complex interactions of soil properties make it difficult to assess the relative bioavailability and, hence, toxicity of constituents at the MCMA site to plants and soil biota.

Alternative plant EISCs were not available for antimony, barium, or chromium. The default MTCA plant EISC for antimony is 5 mg/kg (MTCA Table 749-3). The antimony EPCs for Ecological Exposure Area 1 is 4,301 mg/kg, Area 2 is 71.9 mg/kg, Area 3 is 3,827 mg/kg, and Area 4 is 675.4 mg/kg and exceeds the default EISC. Therefore, hazards to plants from antimony may have been underestimated by a large degree. The default MTCA plant EISC for barium is 500 mg/kg (MTCA Table 749-3) and the EPC for Ecological Exposure Area 1 is 294.3 mg/kg. So it is unlikely that hazards to plants from barium were underestimated. The default MTCA plant EISC for chromium is 42 mg/kg (MTCA Table 749-3) based on Washington State background. The chromium EPCs for Ecological Exposure Area 1 is 54.3 mg/kg and Area 5 is 104 mg/kg, so it appears unlikely that chromium poses a hazard to plants at these areas.

Alternative soil biota EISCs were not available for arsenic, chromium, or silver. The default MTCA soil biota EISC for arsenic is 60 mg/kg (MTCA Table 749-3). Since the arsenic EPCs for Ecological Exposure Areas 1, 2, 3, and 4 range from 12,730 to 38,158 mg/kg, it is likely hazards to soil biota from arsenic were underestimated. The default MTCA soil biota EISC for chromium is 42 mg/kg (MTCA Table 749-3) based on Washington State background. The chromium EPCs for Ecological Exposure Area 1 is 54.3 mg/kg and Area 5 is 104 mg/kg, so it appears unlikely that chromium poses a hazard to soil biota at these areas. There is no default MTCA soil biota EISC for silver (MTCA Table 749-3), so uncertainties are unknown.

The alternative wildlife TRVs used in hazard characterization came from the EPA's EcoSSL Program. The wildlife TRV databases developed by EPA are the most comprehensive and current available. The selected alternative TRVs are considered to be reasonable estimates of the thresholds for toxic effects. However, most of the toxicity data used to derive the TRVs were based on studies of domestic and/or laboratory species (e.g., chickens and quail for birds;

mice and rats for mammals). Extrapolation of this data to receptors used in this TEE (i.e., shrew, vole, and robin) is uncertain. Although the direction of this uncertainty is unknown, the magnitude of this uncertainty is considered to be small.

Alternative avian TRVs were not available for antimony and arsenic and, therefore, hazards to the robin from these constituents could not be assessed. Since antimony and arsenic have relatively large HQs for mammals, it is likely that hazards to the robin were underestimated to a fairly high degree for these constituents.

Potential hazards to plants from iron were assessed indirectly by evaluating soil pH. A number of soil properties besides pH affect the bioavailability and toxicity of iron to plants (e.g., Eh, complexing of iron with other chemicals) (EPA 2003e). Since these properties were not evaluated, the direction and magnitude of the uncertainty associated with the hazard evaluation using soil pH cannot be ascertained.

4.2.3 Uncertainties Associated with Hazard Characterization

This assessment evaluated hazards from mining-related constituents at specific locations where concentrations were expected to be highest (i.e., source areas). One major uncertainty concerns the goal of this assessment. As stated in Section 1.2, the overarching goal is the protection of plants, soil biota, and wildlife. This goal is consistent with the MTCA TEE procedures (WAC 173-340-7490(3)). However, EPA more specifically states that the goal of ecological risk assessment is typically the protection of populations of plants and animals (EPA 1997b). Organisms that are potentially exposed to constituents at MCMA source area locations are part of populations that inhabit much bigger areas. For example, assume that local populations of receptors of concern are delimited within the boundaries of each ecological exposure area. For Area 5 (Weden Creek), which covers approximately 2,700 acres, no more than 0.02 acres have been affected by mining activities. For sedentary species (e.g., plants) and species with small home ranges (e.g., voles), less than 0.001 percent of each population inhabiting Area 5 will be exposed to elevated metals concentrations. Reduced reproduction or increased mortality in 0.001 percent of the population of plants or voles is unlikely to have a significant impact on the local population viability. Likewise, most individuals of wider ranging animal species inhabiting Area 5 (e.g., robins) will have limited exposure to mining-related impacted soil, so impacts to local populations of these species are unlikely to be significant. Therefore, results of this TEE likely overestimate hazards to populations of plants and animals. One possible exception to this generalization is Area 1 (Process

Area) which is relatively small and has a greater proportion of mining-impacted soil.

For species protected under the Endangered Species Act or other applicable laws, the goal of the ecological hazard assessment is typically extended to the protection of individuals. MTCA defines protection of a population as extended to protection of an individual because "effect on individuals are generally considered to be relevant to the health of populations", MTCA Concise and Explanatory Statement 01-09-043. Section 2.1 indicates that several species may inhabit the MCMA, which are protected under these laws. Results of this TEE should be protective of individual organisms because the EISCs used to assess hazards represent threshold concentrations below which adverse impacts to individuals are unlikely to occur.

5.0 CONCLUSIONS

Results of the hazard evaluation and uncertainty analysis are integrated here to formulate conclusions for the site-specific TEE for the MCMA site.

Hazardous constituents are identified in Table C5-1. Multiple constituents are potentially hazardous to plants, soil biota, and wildlife in Ecological Exposure Areas 1, 2, 3, and 4. Ecological Exposure Area 5 has only three hazardous constituents: copper and nickel are potentially hazardous to plants and chromium is potentially hazardous to wildlife.

This phase of the site-specific TEE relied on a literature-based approach to estimate exposures, toxicity, and hazards. With the exception of the site-specific soil data, all other elements of the TEE were obtained from the scientific literature. Information presented in Section 4.2 shows there is considerable uncertainty associated with hazard estimates using literature-based information.

The major conclusions of the site-specific TEE organized by receptor group are:

Plants

- Antimony, arsenic, and lead likely pose hazards to plants living on source areas (i.e., tailings, waste rock and ore piles as well as mine adit areas) in Ecological Exposure Areas 1, 2, 3, and 4. Cadmium, cobalt, copper, iron, manganese, mercury, nickel, selenium, thallium, and zinc may pose hazards to plants living on source areas in one or more ecological exposure areas.
- Local populations of plants (i.e., populations living within each ecological exposure area) are unlikely to be adversely impacted by exposure to constituents associated with source areas.

Soil Biota

- Antimony and arsenic likely pose hazards to soil biota living on source areas (i.e., tailings, waste rock and ore piles as well as mine adit areas) in Ecological Exposure Areas 1, 3, and 4. Cadmium, copper, lead, manganese, selenium, and zinc may pose hazards to soil biota living on source areas in one or more ecological exposure areas.
- Local populations of soil biota (i.e., populations living within each ecological exposure area) are unlikely to be adversely impacted by exposure to constituents associated with source areas.

Wildlife

- Antimony, arsenic, cadmium, and lead likely pose hazards to wildlife living on source areas (i.e., tailings, waste rock and ore piles as well as mine adit areas) in several ecological exposure areas (antimony in Areas 2 and 3; arsenic in Areas 1,2,3, and 4; cadmium in Area 4; lead in Area 1, 3, and 4). Chromium, copper, selenium, and zinc may pose hazards to wildlife living on source areas in one or more ecological exposure areas.
- Local populations of wildlife (i.e., populations living within each ecological exposure area) are unlikely to be adversely impacted by exposure to constituents associated with source areas.

6.0 RECOMMENDATIONS

Conclusions of this site-specific TEE for the MCMA site (Section 5.0) indicate that several constituents may pose hazards to plants, soil biota, and wildlife living on source areas within each ecological exposure area. However, hazards to local populations of plants, soil biota, and wildlife are unlikely to be significant. In this section, we explore additional methods that could be used to refine the ecological hazard estimates and reduce uncertainty in a possible second phase of the site-specific TEE.

MTCA describes the evaluation methods which could be used in a site-specific TEE (WAC 173-340-7493(3)).

One of the main uncertainties associated with the first phase of the TEE concerns the estimation of soil EPCs and hazards to receptor populations. Currently, available soil samples were collected from known or suspected source areas and should represent the highest constituent concentrations in each ecological exposure area. Although some plants, soil biota, and possibly wildlife may live directly on these source areas, they are members of much larger local populations that inhabit much larger contiguous areas. An improved estimate of

the exposure of local populations to constituents could be obtained by integrating exposure across each ecological exposure area. This could be accomplished using existing site and background soil data to generate area-weighted exposure estimates.

Background soil samples were collected from within the MCMA and represent soil concentrations in areas unimpacted by mining activities. Probability distribution techniques, such as Monte Carlo analysis, could be used to generate constituent concentration populations from which modeled sample concentrations could be obtained representing the background and site subpopulations. Using estimates of the areal extent of impacted and unimpacted soil in each ecological exposure area, further analyses could model a set of area-weighted soil concentration samples representing the entire ecological exposure area. For example, if 10 percent of an ecological exposure area was impacted, 10 percent of the sample would be randomly selected from the impacted area population distribution and 90 percent from the unimpacted population distribution. The modeled sample results would then be used to generate an EPC more representative of ecological exposures across the ecological exposure area.

One issue to consider for the approach described above is that MTCA stipulates that for monitoring to assess compliance for soil cleanup actions: no single soil sample concentration shall be greater than two times the soil cleanup level and less than 10 percent of the soil sample concentrations shall exceed the soil cleanup level (WAC 173-340-740(7)(e)). Even if the 10 percent criteria could be met at some ecological exposure areas, it is doubtful that the two times criteria could be met. However, it is unclear whether this limitation is applicable to derivation of cleanup levels.

Another main uncertainty concerns the methods used to evaluate hazards to plants and soil biota. The literature-based plant and soil biota EISCs may not be representative of site-specific bioavailability and toxicity and were developed using species not present at the site. Methods available for refining the hazard assessment for plants and soil biota include toxicity tests, community analysis, and tissue analysis. Laboratory toxicity tests using soils collected from the site can be conducted on plants and soil biota to improve hazard estimates. However, toxicity tests using soil samples collected from source areas at the MCMA site have two major drawbacks. First, test results cannot be readily used to identify the cause of a negative response. Second, identifying a suitable reference area would be very difficult. Although source area substrates do contain elevated levels of many constituents, they are also characterized as coarse-grained, having low organic matter, and being excessively well-drained. Not only would it be difficult to find reference material with the same

characteristics but, lacking elevated constituent concentrations, performance of plant and soil biota test organisms would be compromised by soil with these characteristics.

Plant and soil biota community surveys may be helpful in detecting impacts at contaminated sites compared to a reference area. However, finding a comparable reference area for the source areas at the MCMA would be challenging. The intrinsic nature of the source area material also impacts the establishment and maintenance of plant and soil biota communities.

Plant and soil biota tissue sampling and analysis can be a useful tool for evaluating hazards. Results of tissue and co-located soil sampling provide an integrated measure of the bioavailability of soil constituents, which can be extrapolated to other areas of the site by developing site-specific BAFs. Measured tissue concentrations can be compared to published hazardous threshold tissue concentrations and background as a measure of potential impacts to plants and soil biota. This approach was accepted by Ecology for setting soil cleanup levels at the Holden Mine site. However, plant and soil biota tissue thresholds may not be available for all constituents. In addition, results of site-specific tissue analysis can be used to provide a better estimate of wildlife exposure. The literature-based BAFs that were used to estimate wildlife EISCs in the first phase of this TEE are one of the largest sources of uncertainty associated with assessing hazards to wildlife living on the source areas.

Small mammal (e.g., voles, mice, rats) tissue sampling is another method that has been used at other sites to generate improved estimates of exposure and hazards to small mammals. Small mammals are collected from impacted and reference areas and results from their tissue analysis (whole animal or specific organ) can be used as a measure of exposure to constituents. In addition, threshold tissue values exist for several metals above which adverse affects are indicated. However, collection of small mammals is sometimes difficult, a relatively large number of individual animals are required to provide sufficient mass to met analytical requirements, threshold values are available for relatively few metals, and small mammal collection and analysis may expose field and lab staff to hantavirus.

MTCA (WAC 173-340-7493(3)) also lists biomarkers as a possible method for refining hazard estimates. A common biomarker for assessing exposure to metals is the analysis of tissue levels of metallothioneins (MT). Many organisms synthesize MTs to ameliorate the affects of exposure to metals. Although MT analysis has been shown to be an effective tool for assessing exposure, its use for predicting adverse affects is not well understood. Sloan (2011) recently reported the results of MT analysis in earthworms collected from and exposed to

soil at the Tacoma Smelter Plume site. Results failed to show a correlation between soil concentrations of arsenic and lead and MT levels in exposed earthworms.

Refinement of exposure parameter and toxicity values used to derive wildlife EISCs would probably require some additional site-specific field or laboratory investigations. These types of studies are often difficult, time consuming, and yield inconclusive information. Further refinement of exposure parameter and toxicity values using a literature-based approach would likely have little effect on the EISC value.

Based on the preceding discussions, two methods are recommended to refine ecological hazard estimates at the MCMA site:

- use an area-weighted approach for ecological exposure areas to improve soil EPC estimates for local populations of plants, soil biota and wildlife, and
- use plant and soil biota tissue sampling from the site to improve hazard estimates to plants and soil biota and improve exposure estimates for wildlife.

Although the collection of site-specific plant and soil biota tissue samples will improve exposure and hazard estimates, hazard estimates will likely remain unacceptable for some constituents in some ecological exposure areas that are characterized only using soil samples collected from source areas. This is attributable to the high concentrations of some constituents currently found in several source areas (e.g., EPC for arsenic at Area 4 is 38,158 mg/kg) and relatively low concentration range of alternative EISCs (e.g., alternative EISCs for arsenic in Area 4 range from 18 to 493 mg/kg).

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TABLES

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Table C2-1 – Plant Species Observed or Likely to Occur in the Project Area

Common Name	Scientific Name	Observed/ Expected/ Possible
Trees		
Big-leaf maple	*Acer macrophyllum*	Observed
Douglas fir	*Pseudtosuga menziesii*	Observed
Grand fir	*Abies grandis*	Observed
Mountain hemlock	*Tsuga mertensiana*	Observed
Pacific silver fir	*Abies amabilis*	Observed
Red alder	*Alnus rubra*	Observed
Sitka alder	*Alnus sinuata*	Observed
Subalpine fir	*Abies lasiocarpa*	Observed
Western hemlock	*Tsuga heterophylla*	Observed
Western redcedar	*Thuja plicata*	Observed
Yellow cedar	*Chamaecyparis nookatensis*	Observed
Shrubs		
Devil's club	*Oplopanax horridus*	Observed
False azalea	*Menziesia ferruginea*	Observed
Pink mountain-heather	*Phyllodoce empetriformis*	Observed
Red elderberry	*Sambucus racemosa*	Observed
Red huckleberry	*Vaccinium parvifolium*	Observed
Salmonberry	*Rubus spectabilis*	Observed
Scouler's willow	*Salix scouleriana*	Observed
Sitka mountain-ash	*Sorbus sitchensis*	Observed
Sitka willow	*Salix sitchensis*	Observed
Sticky currant	*Ribes viscosissimum*	Observed
Subalpine spiraea	*Spiraea densiflora*	Observed
Thimbleberry	*Rubus parviflorus*	Observed
Unidentified huckleberry	*Vaccinium sp.*	Observed
Vine maple	*Acer circinatum*	Observed
Groundcover/ Herbaceous		
Alaska saxifrage	*Saxifraga ferruginea*	Observed
Bracken fern	*Pteridium aquifolium*	Observed
Bunchberry	*Cornus canadensis*	Observed
Canada thistle	*Cirsium arvense*	Observed
Colonial bentgrass	*Agrostis capillaris*	Observed
Common dandelion	*Taraxicum officianale*	Observed
Common horsetail	*Equisetum arvense*	Observed
Cow parsnip	*Heracleum lanatum*	Observed
Cusick's speedwell	*Veronica cusickii*	Observed
Daffodil	*Narcissus spp.*	Observed
Deer fern	*Blechnum spicant*	Observed
False lily-of-the-valley	*Maianthemum dilatatum*	Observed
False solomon's seal	*Smilacina racemosa*	Observed
Fireweed	*Epilbium angustifolium*	Observed
Foamflower	*Tiarella trifoliata*	Observed
Fringecup	*Tellima grandiflora*	Observed
Goat's beard	*Aruncus dioicus*	Observed
Hairy cats ear	*Hypochaeris radicata*	Observed
Indian hellebore	*Veratrum viride*	Observed
Lady fern	*Athyrium filix-femina*	Observed
Large-leaved avens	*Geum macrophyllum*	Observed
Oak fern	*Gymnocarpium dryopteris*	Observed

Table C2-1 – Plant Species Observed or Likely to Occur in the Project Area

Common Name	Scientific Name	Observed/ Expected/ Possible
Pacific sanicle	*Sanicula crassicaulis*	Observed
Piggyback plant	*Tolmeia menziesii*	Observed
Queen's cup	*Clintonia uniflora*	Observed
Rattlesnake plantain	*Goodyera oblongifolia*	Observed
Red columbine	*Aquilegia formosa*	Observed
Rosy twistedstalk	*Streptopus roseus*	Observed
Sedge	Carex sp.	Observed
Sitka valerian	*Valeriana sitchensis*	Observed
Spiny wood fern	*Dryopteris expansa*	Observed
Sword fern	*Polystichum munitum*	Observed
Unidentified aster	*Aster* sp.	Observed
Unidentified bramble	*Rubus* sp.	Observed
Unidentified grasses	Various species	Observed
Unidentified moss		Observed
Violet	*Viola spp.*	Observed
Western trillium	*Trillium ovatum*	Observed
Western trillium	*Trillium ovatum*	Observed
Wild ginger	*Asarum caudatum*	Observed
Yellow violet	*Viola glabella*	Observed

Table C2-2 – Birds Observed or Likely to Occur in the Project Area

Common Name	Scientific Name	Observed/ Expected/ Possible
American robin	*Turdus migratorius*	Expected
American crow	*Corvus brachyrhynchos*	Expected
American dipper	*Cinclus mexicanus*	Expected
American redstart	*Wetophaga ruticilla*	Possible
Audubon's warbler	*Dendroica auduboni*	Expected
Bald eagle	*Haliaeetus leucocephalus*	Possible
Band-tailed pigeon	*Columba fasciata*	Possible
Barred owl	*Strix varia*	Expected
Black-backed woodpecker	*Picoides arcticus*	Possible
Black-capped chickadee	*Parus atricapillus*	Expected
Black-chinned hummingbird	*Archilochus alexandri*	Possible
Blue grouse	*Dendragapus obscurus*	Possible
Brown creeper	*Certhia familiaris*	Expected
Calliope hummingbird	*Stellula calliope*	Possible
Cedar waxwing	*Bombycilla cedrorum*	Expected
Chestnut-backed chickadee	*Parus rufescens*	Possible
Common nighthawk	*Chordeiles minor*	Possible
Common raven	*Corvus corax*	Expected
Cooper's hawk	*Accipiter cooperii*	Possible
Dark-eyed junco	*Junco hyemalis*	Expected
Downy woodpecker	*Picoides pubescens (Dendrocopos pubescens)*	Expected
Dusky flycatcher	*Empidonax oberholseri*	Possible
Flammulated owl	*Otus Flammeolus*	Possible
Fox sparrow	*Passerella iliaca*	Expected
Fringed myotis	*Myotis thysanodes*	Possible
Golden eagle	*Aquila chrysaetos*	Possible
Golden-crowned kinglet	*Regulus satrapa*	Expected
Gray jay	*Perisoreus canadensis*	Possible
Great gray owl	*Strix nebulosa*	Expected
Great horned owl	*Bubo virginianus*	Expected
Hairy woodpecker	*Picoides villosus (Dendrocopos villosus)*	Expected
Hammond's flycatcher	*Empidonax hammondii*	Expected
Harlequin Duck	*Histrionicus histrionicus*	Possible
Hermit thrush	*Catharus guttatus (Hylochichla guttata)*	Expected
Long-eared owl	*Asio otus*	Possible
MacGillivray's warbler	*Oporornis tolmiei*	Possible
Marbled murrelet	*Brachyramphus marmoratus*	Expected
Mountain bluebird	*Sialia currucoides*	Possible
Mountain chickadee	*Parus gambeli*	Possible
Northern flicker	*Colaptes auratus (Colaptes cafer)*	Expected
Northern goshawk	*Accipiter gentilis*	Possible
Northwestern crow	*Corvus caurinus*	Expected
Olive-sided flycatcher	*Contopus borealis*	Expected
Orange-crowned warbler	*Vermivora celata*	Possible
Osprey	*Pandion haliaetus*	Possible
Pacific-slope flycatcher	*Empidonax difficilis*	Expected
Pileated woodpecker	*Dryocopus pileatus*	Possible
Pine siskin	*Carduelis pinus (Spinus pinus)*	Expected
Purple finch	*Carpodacus purpureus*	Possible
Pygmy nuthatch	*Sitta pygmaea*	Expected
Pygmy owl	*Glaucidium gnoma*	Expected
Red crossbill	*Loxia curvirostra*	Expected

Table C2-2 – Birds Observed or Likely to Occur in the Project Area

Common Name	Scientific Name	Observed/ Expected/ Possible
Red-breasted nuthatch	*Sitta canadensis*	Expected
Red-breasted sapsucker	*Sphyrapicus ruber*	Possible
Red-tailed hawk	*Buteo jamaicensis*	Expected
Ruby-crowned kinglet	*Regulus calendula*	Expected
Ruffed grouse	*Bonasa umbellus*	Possible
Rufous hummingbird	*Selasphorus rufus*	Expected
Rufous-sided towhee	*Pipilo erythrophthalmus*	Expected
Saw-whet owl	*Aegolius acadicus*	Expected
Sharp-shinned hawk	*Accipiter striatus*	Expected
Song sparrow	*Melospiza melodia*	Expected
Sora	*Porzana carolina*	Expected
Spotted owl	*Strix occidentalis*	Possible
Steller's jay	*Cyanocitta stelleri*	Expected
Swainson's thrush	*Catharus ustulata (Hylocichla ustulata)*	Expected
Three-toed woodpecker	*Picoides tridactylus*	Expected
Townsend's solitaire	*Myadestes townsendi*	Expected
Townsend's warbler	*Dendroica townsendi*	Expected
Turkey	*Meleagris gallopavo*	Possible
Turkey vulture	*Cathartes aura*	Expected
Varied thrush	*Ixoreus naevius*	Expected
Vaux's swift	*Chaetura vauxi*	Expected
Veery	*Catharus fuscescens (Hylocichla fuscescens)*	Possible
Warbling vireo	*Vireo gilvus*	Expected
Western bluebird	*Sialia mexicana*	Possible
Western flycatcher	*Empidonax difficilis*	Possible
Western tanager	*Piranga ludoviciana*	Expected
Western wood pewee	*Contopus sordidulus*	Possible
White-tailed ptarmigan	*Lagopus leucurus*	Expected
White-winged crossbill	*Loxia leucoptera*	Possible
Williamson's sapsucker	*Sphyrapicus thyroideus*	Possible
Willow flycatcher	*Empidonax traillii*	Possible
Winter wren	*Troglodytes troglodytes*	Expected
Yellow warbler	*Dendroica petechia*	Expected
Yellow-bellied sapsucker	*Sphyrapicus varius*	Expected
Yellow-rumped warbler	*Dendroica coronata*	Possible

Table C2-3 – Mammals Observed or Likely to Occur in the Project Area

Common Name	Scientific Name	Observed/ Expected/ Possible
Badger	*Taxidea taxus*	Possible
Beaver	*Castor canadensis*	Possible
Big brown bat	*Eptisicus fuscus*	Possible
Black bear	*Ursus americanus*	Observed
Bobcat	*Lynx rufus*	Expected
Boreal redback vole	*Clethrionomys gapperi*	Possible
California myotis	*Myotis californicus*	Possible
Canada lynx	*Lynx canadensis*	Possible
Cascade golden-mantled ground squirrel	*Citellus sateratus*	Observed
Columbia black-tailed deer	*Odocoileus hemionus columbianus*	Expected
Coyote	*Canis latrans*	Expected
Deer mouse	*Peromyscus maniculatus*	Expected
Douglas squirrel	*Tamiasciurus douglasi*	Observed
Dusky shrew	*Sorex obscurus*	Expected
Fisher	*Martes pennanti*	Possible
Fringed myotis	*Myotis thysanodes*	Possible
Gray wolf	*Canis lupus*	Possible
Grizzly bear	*Ursus arctos*	Possible
Heather vole	*Phenacomys intermedius*	Possible
Hoary marmot	*Marmota caligata*	Expected
Keen's myotis	*Myotis keenii*	Expected
Little brown myotis	*Myotis lucifugus*	Possible
Long-eared myotis	*Myotis evotis*	Expected
Long-legged myotis	*Myotis volans*	Possible
Longtail vole	*Microtus longicaudus*	Possible
Longtail weasel	*Mustela frenata*	Expected
Marten	*Martes americana*	Possible
Masked shrew	*Sorex cinereus*	Expected
Mink	*Mustela vision*	Expected
Montane shrew	*Soex monticolus*	Expected
Mountain beaver	*Aplodontia rufa*	Expected
Mountain goat	*Oreamnos americanus*	Possible
Mountain lion	*Felis concolor*	Expected
Mountain vole	*Microtus montanus*	Expected
Northern flying squirrel	*Glaucomys sabrinus*	Expected
Northern water shrew	*Sorex palustris*	Expected
Opossum	*Didelphis marsupialis*	Possible
Pacific jumping mouse	*Zapus trinotatus*	Possible
Pallid bat	*Antozous pallidus*	Possible
Pika	*Ochotona princeps*	Expected
Porcupine	*Erethizon dorsatum*	Expected
Preble’s shrew	*Sorex preblei*	Possible
Raccoon	*Procyon lotor*	Expected
Red bat	*Lasiurus borealis*	Possible
Red fox	*Vulpes fulva*	Expected
Shorttail weasel	*Mustela erminea*	Possible

Table C2-3 – Mammals Observed or Likely to Occur in the Project Area

Common Name	Scientific Name	Observed/ Expected/ Possible
Silver-haired bat	*Lasionycteris noctivagans*	Possible
Small-footed myotis	*Myotis leibii*	Possible
Snowshoe hare	*Lepus americanus*	Expected
Spotted skunk	*Spilogale putorius*	Possible
Striped skunk	*Mephitis mephitis*	Possible
Townsend vole	*Microtus townsendi*	Possible
Townsend's big-eared bat	*Plecotus townsendii townsendii*	Expected
Townsend's chipmunk	*Eutamias townsendi*	Expected
Trowbridge's shrew	*Sorex trowbridgei*	Possible
Vagrant shrew	*Sorex vagrans*	Possible
Water vole	*Microtus richardsoni*	Expected
Wolverine	*Gulo gulo luteus*	Possible
Yellow pine chipmunk	*Eutamias amoenus*	Expected
Yellow-bellied marmot	*Marmota flaviventris*	Expected
Yuma myotis	*Myotis yumanensis*	Possible

Table C2-4 – Terrestrial Invertebrates Observed or Likely to Occur in the Project Area

Common Name	Scientific Name	Observed/ Expected/ Possible
Alderflies	*Sialis* sp.	Expected
Ants	Order Hymenoptera	Observed
Banana slug	*Ariolimax columbianus*	Expected
Bees	Order Hymenoptera	Observed
Black carpenter ants	*Camponotus pennsylvanicus*	Expected
Black flies	*Simulium* sp.	Observed
Black-foot tightcoil snail	*Pristiloma chirstenella*	Possible
Butterflies and moths	Order Lepidoptera	Observed
Centipedes	Order Chilopoda	Expected
Common black ground beetle	*Pterostichus* sp.	Observed
Daddy-long-legs	Order Opiliones	Expected
Deer fly	*Chrysops* sp.	Observed
Grasshoppers and crickets	Order Orthoptera	Expected
Mayflies	Order Ephemeroptera	Expected
Mites and ticks	Order Acarina	Expected
Spiders	Order Araneae	Observed
Wasps	Order Hymenoptera	Expected
Yellow jackets	*Vespula* sp.	Observed

Table C2-5 – Amphibians and Reptiles Observed or Likely to Occur in the Project Area

Common Name	Scientific Name	Observed/ Expected/ Possible
Amphibians		
Cascades frog	*Rana cascadae*	Expected
Long-toed salamander	*Ambystoma macrodactylum*	Expected
Pacific treefrog	*Hyla regilla*	Possible
Red-legged frog	*Rana aurora*	Possible
Tailed frog	*Ascaphus montanus*	Expected
Western toad	*Bufo boreas*	Expected
Reptiles		
Common garter snake	*Thamnophis sirtalis*	Expected
Northern alligator lizard	*Gerrhonotus coeruleus*	Expected
Rubber boa	*Charina bottae*	Possible
Western skunk	*Eumeces skiltonianus*	Expected

Table C2-6 – Threatened, Endangered, and Sensitive Species Observed or Likely to Occur in the Project Area

Common Name	Species Name	Federal Status	State Status	Observed/ Expected/ Possible
Plants				
Tall agoseris	*Agoseris elata*		Sensitive	Possible
Stalked moonwort	*Botrychium pedunculosum*	Concern	Sensitive	Possible
Alaska harebell	*Campanula lasiocarpa*		Sensitive	Possible
Bristly sedge	*Carex comosa*		Sensitive	Possible
Poor sedge	*Carex magellanica ssp. Irrigua*		Sensitive	Possible
Few-flowered sedge	*Carex pauciflora*		Sensitive	Possible
Several-flowered sedge	*Carex pluriflora*		Sensitive	Possible
Smoky mountain sedge	*Carex proposita*		Threatened	Possible
Long-styled sedge	*Carex stylosa*		Sensitive	Possible
Spleenwort-leaved goldthread	*Coptis aspleniifolia*		Sensitive	Possible
Yellow mountain-avens	*Dryas drummondii*		Sensitive	Possible
Salish fleabane	*Erigeron salishii*		Sensitive	Possible
Black lily	*Fritillaria camschatcensis*		Sensitive	Possible
Boreal bedstraw	*Galium kamtschaticum*		Sensitive	Expected
Creeping snowberry	*Gaultheria hispidula*		Sensitive	Possible
Water lobelia	*Lobelia dortmanna*		Threatened	Possible
Treelike clubmoss	*Lycopodium dendroideum*		Sensitive	Possible
Branching montia	*Montia diffusa*		Sensitive	Possible
Whitebark pine	*Pinus albicaulis*	Candidate		Expected
Pine-foot	*Pityopus californica*		Threatened	Possible
Choris' bog-orchid	*Platanthera chorisiana*		Threatened	Possible
Small northern bog-orchid	*Platanthera obtusata*		Sensitive	Possible
Cooley's buttercup	*Ranunculus cooleyae*		Sensitive	Possible
Pygmy saxifrage	*Saxifraga rivularis*		Sensitive	Possible
Swertia	*Swertia perennis*		Review	Possible
Flat-leaved bladderwort	*Utricularia intermedia*		Sensitive	Possible
Terrestrial Invertebrates				
Beller's ground beetle	*Agonum belleri*	Concern	Candidate	Expected
Johnson' hairstreak	*Callophrys johnsoni*		Candidate	Possible
Reptiles and Amphibians (Herpetiles)				
Western pond turtle	*Actinemys marmorata*	Concern	Endangered	Possible
Tailed frog	*Ascaphus truei*	Concern	Monitor	Expected
Cascades frog	*Rana cascadae*	Concern	Monitor	Expected
Western toad	*Bufo boreas*	Concern	Candidate	Expected
Oregon spotted frog	*Rana pretiosa*	Candidate	Endangered	Expected
Birds				
Northern goshawk	*Accipiter gentilis*	Concern	Candidate	Expected
Olive-sided flycatcher	*Contopus borealis*	Concern		Expected
Pileated woodpecker	*Dryocopus pileatus*		Candidate	Expected
Northern spotted owl	*Strix occidentalis*	Threatened	Endangered	Possible
American peregrine falcon	*Falco peregrinus anatum*	Concern	Sensitive	Expected
Bald eagle	*Haliaeetus leucocephalus*	Sensitive	Concern	Expected
Black-backed woodpecker	*Picoides arcticus*		Candidate	Possible
Golden eagle	*Aquila chrysaetos*		Candidate	Possible
Marbled murrelet	*Brachyramphus marmoratus*	Threatened	Threatened	Possible

Table C2-6 – Threatened, Endangered, and Sensitive Species Observed or Likely to Occur in the Project Area

Common Name	Species Name	Federal Status	State Status	Observed/ Expected/ Possible
Mammals				
Columbia black-tailed deer	*Odocoileus hemionus*	Endangered	Endangered	Expected
Canada lynx	*Lynx canadensis*	Threatened	Threatened	Possible
Fisher	*Martes pennanti*	Candidate	Endangered	Possible
Gray wolf	*Canis lupus*	Endangered	Endangered	Possible
Long-eared myotis	*Myotis evotis*	Concern	Monitor	Possible
Long-legged myotis	*Myotis volans*	Concern	Monitor	Possible
Mountain goat	*Oreamnos americanus*		Priority	Possible
Grizzly bear	*Ursus arctos*	Threatened	Endangered	Possible
Townsend big-eared bat	*Plecotus townsendii townsendii*	Concern	Candidate	Possible
Keen's myotis	*Myotis keenii*		Candidate	Possible
Wolverine	*Gulo gulo*	Candidate	Candidate	Possible

Table C2-7 – Default Ecological Indicator Soil Concentrations

Constituent	Default EISC (mg/kg)[a]			Final Default EISC (mg/kg)[b]
	Plant	Soil Biota	Wildlife	Unrestricted Land Use
Aluminum	50	NA	NA	50
Antimony	5	NA	NA	5
Arsenic[e]	10	60	132	10
Barium	500	NA	102	102
Beryllium	10	NA	NA	10
Cadmium	4	20	14	4
Calcium[d]	--	--	--	--
Chromium	42	42	67	42
Cobalt	20	NA	NA	20
Copper	100	50	217	50
Iron	--	--	--	--
Lead	50	500	118	50
Magnesium[d]	--	--	--	--
Manganese	1,100	NA	1,500	1,100
Mercury	0.3[c]	0.1[c]	5.5[c]	0.1
Nickel	30	200	980	30
Potassium[d]	--	--	--	--
Selenium	1	70	0.3	0.3
Silver	2	NA	NA	2
Sodium[d]	--	--	--	--
Thallium	1	NA	NA	1
Vanadium	2	NA	NA	2
Zinc	86	200	360	86

[a] Ecological indicator soil concentration (EISC) from MTCA Table 749-3.

[b] Final EISCs are the lower of plant, soil biota, and wildlife values. The final EISCs are used to identify COPECs in Section 2.5.

[c] EISC is for inorganic mercury. Inorganic mercury is the dominant form of mercury found in soil, typically contributing between 97 and 99 percent of the total mercury (EPA 1997a).

[d] Constituent is an essential element and considered non-toxic over a wide range of soil concentrations. Constituent is eliminated from further considered in this TEE.

[e] EISC is for arsenic V. Under oxidizing conditions (e.g., well-drained soil), the arsenic V form dominates (Ascar et al. 2008; Kabata-Pendias and Pendias 1984; Zhang and Selim, 2008). It is assumed that soil in the bioactive zone of the MCMA are well-drained.

NA - EISC is not available.

EISC - ecological indicator soil concentration

-- Not evaluated.

Table C2-8 – Endpoints for the Site-specific Terrestrial Ecological Evaluation

Assessment Endpoint	Measurement Endpoint
Maintain growth, survival and reproductive success of wildlife (i.e., birds and mammals)	Compare soil constituent concentrations to:
	a) ecological indicator soil concentrations for wildlife
	b) soil background concentrations
Maintain growth, survival and reproductive success of plants	Compare soil constituent concentrations to:
	a) ecological indicator soil concentrations for plants
	b) soil background concentrations
Maintain growth, survival and reproductive success of soil biota	Compare soil constituent concentrations to:
	a) ecological indicator soil concentrations for soil biota
	b) soil background concentrations

Table C2-9 – Selection of Statistical Test for Background Comparison

Constituent	Background		Ecological Exposure Area 1			Ecological Exposure Area 2			Ecological Exposure Area 3			Ecological Exposure Area 4			Ecological Exposure Area 5		
	Multiple DLs?	< 40% Detects?	Multiple DLs?	< 40% Detects?	Test	Multiple DLs?	< 40% Detects?	Test	Multiple DLs?	< 40% Detects?	Test	Multiple DLs?	< 40% Detects?	Test	Multiple DLs?	< 40% Detects?	Test
Aluminum	No	No	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Anitmony	No	No	No	No	WMW	Yes	No	Gehan	Yes	No	Gehan	No	No	WMW	No	No	WMW
Arsenic	No	No	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Barium	No	No	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Beryllium	Yes	No	Yes	Yes	Gehan	No	No	Gehan	Yes	No	Gehan	No	No	Gehan	No	No	Gehan
Cadmium	No	No	Yes	No	Gehan	Yes	No	Gehan	Yes	No	Gehan	No	No	WMW	No	No	WMW
Chromium	No	No	No	No	WMW	Yes	No	Gehan	Yes	No	Gehan	No	No	WMW	No	No	WMW
Cobalt	No	No	Yes	No	Gehan	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Copper	No	No	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Iron	No	No	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Lead	No	No	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Manganese	No	No	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Mercury	Yes	No	No	No	Gehan	No	No	Gehan	No	No	Gehan	No	No	Gehan	No	No	Gehan
Nickel	No	No	Yes	No	Gehan	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Selenium	Yes	No	Yes	No	Gehan	Yes	No	Gehan	Yes	No	Gehan	No	No	Gehan	No	No	Gehan
Silver	No	No	No	No	WMW	Yes	No	Gehan	Yes	No	Gehan	No	No	WMW	No	No	WMW
Thallium	Yes	Yes	Yes	Yes	Gehan	No	No	Gehan	Yes	No	Gehan	No	No	Gehan	No	No	Gehan
Vanadium	No	No	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW	No	No	WMW
Zinc	Yes	No	No	No	Gehan	No	No	Gehan	No	No	Gehan	No	No	Gehan	No	No	Gehan

DLs - dectection limits
WMW - Wilcoxon-Mann-Whitney test

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Table C2-10 – Constituents of Potential Ecological Concern for Ecological Exposure Area 1

Constituent	Soil EPC (mg/kg)	Default EISC (mg/kg)	EPC Exceeds Default EISC?	Natural Background Concentration (mg/kg)a	Site Exceeds Background?b	COPEC?
Aluminum	10,022	50	Yes	37,271	No	No
Antimony	4,301	5	Yes	8.203	Yes	Yes
Arsenic	32,028	10	Yes	262.3	Yes	Yes
Barium	294	102	Yes	82.8	Yes	Yes
Beryllium	0.51	10	No	0.544	No	No
Cadmium	28	4	Yes	0.771	Yes	Yes
Chromium	54	42	Yes	70.57	Yes	Yes
Cobalt	7	20	No	20.37	No	No
Copper	943	50	Yes	131	Yes	Yes
Iron	67,590	NA	NA	36,136	Yes	Yes
Lead	10,092	50	Yes	71.24	Yes	Yes
Manganese	804	1,100	No	1,242	No	No
Mercury	4.14	0.10	Yes	0.393	Yes	Yes
Nickel	20	30	No	53.6	No	No
Selenium	2.06	0.30	Yes	1.639	Yes	Yes
Silver	131	2	Yes	1.187	Yes	Yes
Thallium	3.67	1	Yes	0.33	Yes	Yes
Vanadium	47	2	Yes	92.35	No	No
Zinc	2,822	86	Yes	151.4	Yes	Yes

[a] Natural background concentrations were calculated using ProUCL and are presented in Appendix D of the main body of the RI report. They are shown here for comparative purposes only. Background comparisons were made using the hypothesis testing methods described in Section 2.5.1.

[b] Results of natural background comparisons are provided in Appendix D.

EPC - exposure point concentration
EISC - ecological indicator soil concentration
COPEC - constituent of potential ecological concern
NA - not available

Table C2-11 – Constituents of Potential Ecological Concern for Ecological Exposure Area 2

Constituent	Soil EPC (mg/kg)	Default EISC (mg/kg)	EPC Exceeds Default EISC?	Natural Background Concentration (mg/kg)a	Site Exceeds Background?b	COPEC?
Aluminum	15,813	50	Yes	37,271	No	No
Antimony	72	5	Yes	8.203	Yes	Yes
Arsenic	27,439	10	Yes	262.3	Yes	Yes
Barium	63	102	No	82.8	Yes	No
Beryllium	0.13	10	No	0.544	No	No
Cadmium	1.29	4	No	0.771	Yes	No
Chromium	73	42	Yes	70.57	No	No
Cobalt	48	20	Yes	20.37	Yes	Yes
Copper	742	50	Yes	131	Yes	Yes
Iron	105,833	NA	NA	36,136	Yes	Yes
Lead	594	50	Yes	71.24	Yes	Yes
Manganese	1,129	1,100	Yes	1,242	No	No
Mercury	0.55	0.10	Yes	0.393	Yes	Yes
Nickel	13	30	No	53.6	No	No
Selenium	12	0.30	Yes	1.639	Yes	Yes
Silver	26	2	Yes	1.187	Yes	Yes
Thallium	0.33	1	No	0.33	Yes	No
Vanadium	45	2	Yes	92.35	No	No
Zinc	306	86	Yes	151.4	Yes	Yes

[a] Natural background concentrations were calculated using ProUCL and are presented in Appendix D of the main body of the RI report. They are shown here for comparative purposes only. Background comparisons were made using the hypothesis testing methods described in Section 2.5.1.

[b] Results of natural background comparisons are provided in Appendix D.

EPC - exposure point concentration
EISC - ecological indicator soil concentration
COPEC - constituent of potential ecological concern
NA - not available

Table C2-12 – Constituents of Potential Ecological Concern for Ecological Exposure Area 3

Constituent	Soil EPC (mg/kg)	Default EISC (mg/kg)	EPC Exceeds Default EISC?	Natural Background Concentration (mg/kg)a	Site Exceeds Background?b	COPEC?
Aluminum	15,204	50	Yes	37,271	No	No
Antimony	3,827	5	Yes	8.203	Yes	Yes
Arsenic	12,730	10	Yes	262.3	Yes	Yes
Barium	58	102	No	82.8	No	No
Beryllium	0.27	10	No	0.544	No	No
Cadmium	15	4	Yes	0.771	Yes	Yes
Chromium	12	42	No	70.57	No	No
Cobalt	21	20	Yes	20.37	No	No
Copper	524	50	Yes	131	Yes	Yes
Iron	94,482	NA	NA	36,136	Yes	Yes
Lead	16,364	50	Yes	71.24	Yes	Yes
Manganese	7,924	1,100	Yes	1,242	No	No
Mercury	1.28	0.10	Yes	0.393	Yes	Yes
Nickel	24	30	No	53.6	No	No
Selenium	2.78	0.30	Yes	1.639	No	No
Silver	102	2	Yes	1.187	Yes	Yes
Thallium	3.05	1	Yes	0.33	Yes	Yes
Vanadium	51	2	Yes	92.35	No	No
Zinc	1,090	86	Yes	151.4	Yes	Yes

[a] Natural background concentrations were calculated using ProUCL and are presented in Appendix D of the main body of the RI report. They are shown here for comparative purposes only. Background comparisons were made using the hypothesis testing methods described in Section 2.5.1.

[b] Results of natural background comparisons are provided in Appendix D.

EPC - exposure point concentration
EISC - ecological indicator soil concentration
COPEC - constituent of potential ecological concern
NA - not available

Table C2-13 – Constituents of Potential Ecological Concern for Ecological Exposure Area 4

Constituent	Soil EPC (mg/kg)	Default EISC (mg/kg)	EPC Exceeds Default EISC?	Natural Background Concentration (mg/kg)a	Site Exceeds Background?b	COPEC?
Aluminum	15,017	50	Yes	37,271	No	No
Antimony	675	5	Yes	8.203	Yes	Yes
Arsenic	38,158	10	Yes	262.3	Yes	Yes
Barium	57	102	No	82.8	No	No
Beryllium	0.46	10	No	0.544	Yes	No
Cadmium	323	4	Yes	0.771	Yes	Yes
Chromium	18	42	No	70.57	No	No
Cobalt	26	20	Yes	20.37	Yes	Yes
Copper	261	50	Yes	131	Yes	Yes
Iron	76,199	NA	NA	36,136	Yes	Yes
Lead	4,238	50	Yes	71.24	Yes	Yes
Manganese	4,200	1,100	Yes	1,242	Yes	Yes
Mercury	1.45	0.10	Yes	0.393	Yes	Yes
Nickel	25	30	No	53.6	No	No
Selenium	1.44	0.30	Yes	1.639	Yes	Yes
Silver	14	2	Yes	1.187	Yes	Yes
Thallium	0.46	1	No	0.33	Yes	No
Vanadium	54	2	Yes	92.35	No	No
Zinc	2,138	86	Yes	151.4	Yes	Yes

[a] Natural background concentrations were calculated using ProUCL and are presented in Appendix D of the main body of the RI report. They are shown here for comparative purposes only. Background comparisons were made using the hypothesis testing methods described in Section 2.5.1.

[b] Results of natural background comparisons are provided in Appendix D.

EPC - exposure point concentration
EISC - ecological indicator soil concentration
COPEC - constituent of potential ecological concern
NA - not available

Table C2-14 – Constituents of Potential Ecological Concern for Ecological Exposure Area 5

Constituent	Soil EPC (mg/kg)	Default EISC (mg/kg)	EPC Exceeds Default EISC?	Natural Background Concentration (mg/kg)a	Site Exceeds Background?b	COPEC?
Aluminum	33,561	50	Yes	37,271	Yes	Yes
Antimony	4.39	5	No	8.203	No	No
Arsenic	327	10	Yes	262.3	No	No
Barium	91	102	No	82.8	Yes	No
Beryllium	0.78	10	No	0.544	Yes	No
Cadmium	0.65	4	No	0.771	No	No
Chromium	104	42	Yes	70.57	Yes	Yes
Cobalt	31	20	Yes	20.37	Yes	Yes
Copper	114	50	Yes	131	Yes	Yes
Iron	43,809	NA	NA	36,136	Yes	Yes
Lead	72	50	Yes	71.24	No	No
Manganese	1,100	1,100	No	1,242	Yes	No
Mercury	0.23	0.1	Yes	0.393	No	No
Nickel	181	30	Yes	53.6	Yes	Yes
Selenium	1.04	0.3	Yes	1.639	No	No
Silver	0.12	2.0	No	1.187	No	No
Thallium	0.21	1.0	No	0.33	No	No
Vanadium	104	2.0	Yes	92.35	No	No
Zinc	135	86	Yes	151.4	Yes	Yes

[a] Natural background concentrations were calculated using ProUCL and are presented in Appendix D of the main body of the RI report. They are shown here for comparative purposes only. Background comparisons were made using the hypothesis testing methods described in Section 2.5.1.

[b] Results of natural background comparisons are provided in Appendix D.

EPC - exposure point concentration
EISC - ecological indicator soil concentration
COPEC - constituent of potential ecological concern
NA - not available

Table C2-15 – Soil Constituents of Potential Ecological Concern Summary

Constituent	COPEC in Ecological Exposure Area?					Number of Areas with Constituent as COPEC
	Area 1	Area 2	Area 3	Area 4	Area 5	
Aluminum	No	No	No	No	Yes	1
Antimony	Yes	Yes	Yes	Yes	No	4
Arsenic	Yes	Yes	Yes	Yes	No	4
Barium	Yes	No	No	No	No	1
Beryllium	No	No	No	No	No	0
Cadmium	Yes	No	Yes	Yes	No	3
Chromium	Yes	No	No	No	Yes	2
Cobalt	No	Yes	No	Yes	Yes	3
Copper	Yes	Yes	Yes	Yes	Yes	5
Iron	Yes	Yes	Yes	Yes	Yes	5
Lead	Yes	Yes	Yes	Yes	No	4
Manganese	No	No	No	Yes	No	1
Mercury	Yes	Yes	Yes	Yes	No	4
Nickel	No	No	No	No	Yes	1
Selenium	Yes	Yes	No	Yes	No	3
Silver	Yes	Yes	Yes	Yes	No	4
Thallium	Yes	No	Yes	No	No	2
Vanadium	No	No	No	No	No	0
Zinc	Yes	Yes	Yes	Yes	Yes	5
# COPECs/Area	13	10	10	12	7	

COPEC - constituent of potential ecological concern

Table C3-1 – Ecological Indicator Soil Concentrations for Plants and Soil Biota

Constituent	Default EISCs (mg/kg)[a]				Alternative EISCs (mg/kg)[e]			
	Plant	Confidence[g]	Soil Biota	Confidence[g]	Plant	Basis[d]	Soil Biota	Basis[d]
Aluminum	50	Low (n=1)	NA		[b]		[b]	
Antimony	5	Low (n=1)	NA		NA		78	EC_{20} reproduction (n=3)
Arsenic[f]	10	Moderate (n=16)	60	Low (n=1)	18	MATC growth (n=3)	NA	
Barium	500	Low (n=2)	NA		NA		330	EC_{20} reproduction (n=3)
Beryllium	10	Low (n=3)	NA		NA		40	EC_{20} reproduction (n=3)
Cadmium	4	High (n=73)	20	Moderate (n=17)	32	MATC growth (n=13)	140	MATC reproduction and growth, EC_{10} population (n=10)
Calcium[h]	--		--		--		--	
Chromium	42	Washington State natural soil background concentration because ORNL benchmark (1 mg/kg) is less than background	42	Washington State natural soil background concentration because ORNL benchmark (0.4 mg/kg) is less than background	NA		NA	
Cobalt	20	Low (n=1)	NA		30.6[i]		NA	
Copper	100	Low (n=3)	50	High (n=24)	70	MATC reproduction and growth, EC_{20} growth (n=6)	80	MATC reproduction, population, and growth, EC_{10} reproduction (n=10)
Iron	--		--		[c]		[c]	
Lead	50	Moderate (n=17)	500	Low (n=7)	120	MATC growth (n=5)	1,700	MATC reproduction (n=4)
Magnesium[h]	--		--		--		--	
Manganese	1100	Washington State natural soil background concentration because ORNL benchmark (500 mg/kg) is less than background	NA		1,242 [j]	MATC growth (n=4)	1,242 [j]	EC_{20} reproduction (n=3)
Mercury	0.3	Low (n=2)	0.1	Low (n=2)	--		--	
Nickel	30	Moderate (n=14)	200	Low (n=5)	28[i]	EC_{20} growth, MATC growth and reporduction (n=11)	280	MATC reproduction (n=5)
Potassium[h]	--		--		--		--	
Selenium	1	Moderate (n=14)	70	Low (n=1)	0.52	EC_{20} growth and MATC growth (n=8)	4.1	EC_{20} reproduction (n=3)
Silver	2	Low (n=1)	NA		560	MATC growth (n=4)	NA	
Sodium[h]	--		--		--		--	
Thallium	1	Low (n=1)	NA		--		--	
Vanadium	2	Low (n=2)	NA		NA		NA	
Zinc	86	Washington State natural soil background concentration because ORNL benchmark (50 mg/kg) is less than background	200	High (n=21)	160	MATC growth (n=5)	120	MATC population and EC_{10} reproduction (n=6)
Soil pH	--		--		--		--	

[a] Default EISCs come from MTCA Table 749-3.

[b] EPA (2003d) determined that the measurement of total aluminum in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. Potential ecological risks associated with aluminum were identified based on the measured soil pH. Aluminum is considered to pose a potential ecological riosk only when the soil pH is less than 5.5.

[c] EPA (2003e) determined that the measurement of total iron in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. EPA recommends that site-specific measurements of soil pH and Eh (oxidation/reduction potential) be used to help evaluate the bioavailability and toxicity of iron. In well-aerated soil between pH 5 and 8, iron is not expected to be toxic to plants (plants being the most sensitive ecological receptor).

[d] Basis describes endpoints and the number of acceptable toxicity values (n) used to derive EcoSSL.

[e] Alternative EISCs come from EPA's EcoSSL documents for individual constituents and are available online at http://www.epa.gov/ecotox/ecossl/ unless noted otherwise.

[f] The values shown are for arsenic V. Arsenic V is the predominant form of arsenic in aerobic surficial soils which was substantiated by Sloan (2011).

[g] Confidence in the TRV is based on the number of toxicity values used to select the TRV. Confidence is low ($n \leq 10$), medium ($n > 10$ and $n \leq 20$), or high ($n > 20$). Information obtained from Efromyson (1997a, 1997b).

[h] Constituent is an essential element, considered non-toxic under a wide-range of environmental concentrations, and is excluded from further evaluation.

[i] Value from Kapustka et al. 2006

[j] EcoSSL value was below background. Soil cleanup leavels cannot be below background according to MTCA [WAC 173-340-740(5)(c)]; therefore this value represents background

NA - Insufficient data was available from ORNL or EPA to develop a protective soil concentration.

NR - not required

-- = constituent not evaluated by ORNL or EPA

EISC - ecological indicator soil concentration

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Table C3-2 – Alternative Mammal and Bird Toxicity Reference Values

Constituent	Default TRV (mg/kg body weight - day)[a]			Altervative TRV (mg/kg body weight-day)[b]			
	Shrew	Vole	Robin	Mammal		Bird	
				TRV	# Obs	TRV	# Obs
Aluminum[d]	--	--	--	NA	NA	NA	NA
Antimony	--	--	--	17.2	5	NA	NA
Arsenic	35[e]	35[e]	22[e]	3	18	NA	NA
Barium	43.5	33.3	NA	121	7	NA	NA
Beryllium	--	--	--	--	--	--	--
Cadmium	15	15	20	1.3	38	2.4	14
Calcium[c]	--	--	--	--	--	--	--
Chromium	35.2	29.6	5	30.4	13	2.8	3
Cobalt	--	--	--	12.7	3	8	6
Copper	44	33.6	61.7	19.6	32	24.1	69
Iron[d]	--	--	--	NA	NA	NA	NA
Lead	20	20	11.3	8.81	50	3.8	18
Magnesium[c]	--	--	--	--	--	--	--
Manganese	624	477	NA	71	11	349.6	3
Mercury	2.86	2.18	0.9	--	--	--	--
Nickel	175.8	134.4	107	3.4	17	14.7	6
Potassium[c]	--	--	--	--	--	--	--
Selenium	0.725	0.55	1	0.3	78	0.4	43
Silver	--	--	--	NA	NA	NA	NA
Sodium[c]	--	--	--	--	--	--	--
Thallium	--	--	--	--	--	--	--
Vanadium	--	--	--	6	7	0.6	28
Zinc	703.3	537.4	131	84.2	15	86.8	34
Soil pH	--	--	--	--	--	--	--

NA - Not available because of insufficient toxicological data.

TRV - Toxicity reference value.

Obs - Number of observations.

-- Not available or not evaluated.

[a] Default TRVs come from MTCA Table 749-5.

[b] Alternative TRVs are the ten[th] percentile of bounded LOAELs for reproduction, growth, and survival from EPA's EcoSSLs documents (available online at http://www.epa.gov/ecotox/ecossl/) (see Appendix DH-1).

[c] Constituent is an essential element, considered non-toxic under a wide range of environmental concentrations, and is excluded from further evaluation.

[d] EPA concluded that aluminum and iron could be toxic to plants and soil inverebrates, but that toxicity was related to soil conditions (e.g., pH) rather than the total aluminum or iron concentration in soil. EPA did not report aluminum or iron as being toxic to birds and mammals.

[e] Value is for arsenic V because it is the dominant form of arsenic in aerobic soils, which is confirmed by Sloan (2011).

Table C3-3 – Alternative Plant and Soil Biota Bioaccumulation Factors

Constituent	Default BAFs[a]		Alternative BAFs and Tissue Concentrations[b]	
	Plant	Earthworm	Plant	Earthworm
Aluminum	1.01	4.6	--	--
Antimony	1.01	4.6	$\ln(C_p) = 0.938 * \ln(C_s) - 3.233$	$C_e = C_s$
Arsenic	0.06	1.16	$C_p = 0.03752 * C_s$	$\ln(C_e) = 0.706 * \ln(C_s) - 1.421$
Barium	1.01	0.36	$C_p = 0.156 * C_s$	$C_e = 0.091 * C_s$
Beryllium	1.01	4.6	$\ln(C_p) = 0.7345 * \ln(C_s) - 0.5361$	$C_e = 0.045 * C_s$
Cadmium	0.14	4.6	$\ln(C_p) = 0.546 * \ln(C_s) - 0.475$	$\ln(C_e) = 0.795 * \ln(C_s) + 2.114$
Calcium[c]	--	--	--	--
Chromium	1.01	0.49	$C_p = 0.041 * C_s$	$C_e = 0.306 * C_s$
Cobalt	1.01	4.6	$C_p = 0.0075 * C_s$	$C_e = 0.122 * C_s$
Copper	0.02	0.88	$\ln(C_p) = 0.394 * \ln(C_s) + 0.668$	$C_e = 0.515 * C_s$
Iron	1.01	4.6	--	--
Lead	0.0047	0.69	$\ln(C_p) = 0.561 * \ln(C_s) - 1.328$	$\ln(C_e) = 0.807 * \ln(C_s) - 0.218$
Magnesium[c]	--	--	--	--
Manganese	1.01	0.29	$C_p = 0.079 * C_s$	$\ln(C_e) = 0.682 * \ln(C_s) - 0.809$
Mercury	0.0854	1.32	--	--
Nickel	0.047	0.78	$\ln(C_p) = 0.748 * \ln(C_s) - 2.223$	NA
Potassium[c]	--	--	--	--
Selenium	0.0065	10.5	$\ln(C_p) = 1.104 * \ln(C_s) - 0.677$	$\ln(C_e) = 0.733 * \ln(C_s) - 0.075$
Silver	1.01	4.6	$C_p = 0.014 * C_s$	$C_e = 2.045 * C_s$
Sodium[c]	--	--	--	--
Thallium	1.01	4.6	--	--
Vanadium	1.01	4.6	$C_p = 0.00485 * C_s$	$C_e = 0.042 * C_s$
Zinc	0.095	3.19	$\ln(C_p) = 0.554 * \ln(C_s) + 1.575$	$\ln(C_e) = 0.328 * \ln(C_s) + 4.449$
Soil pH	--	--	--	--

[a] Values from MTCA Table 749-5 (BAF_{Worm} and K_{plant} values).

[b] Equations are from EPA's EcoSSL program (EPA 2007b). In equations that are a simple ratio, the BAF is the numerical value shown. The regression equations are used to derive tissue concentrations for plants and earthworms using site-specific soil concentrations (EPCs). BAFs are calculated as the exponent of the lognormal plant or earthworm tissue concentration divided by the soil EPC and are integrated into the derivation of alternative EISCs for the vole, shrew, and robin presented in Section 4.1.

[c] Constituent is an essential element, considered non-toxic under a wide-range of environmental concentrations, and is excluded from further evaluation.

BAF - bioaccumulation factor

NA - not available

-- not evaluated

C_s = concentrations in soil (mg/kg)

C_p = concentrations in plant tissue (mg/kg dry weight)

C_e = concentration in earthworm (mg/kg dry weight)

ln = natural log

Table C3-4 – Wildlife Exposure Parameter Values

Exposure Parameter	Default Values[a]			Alternative Values[b]		
	Shrew	Vole	Robin	Shrew	Vole	Woodcock
Proportion of Contaminated Food in Diet (P) (unitless)	0.5	1	0.52	--	--	--
Food Ingestion Rate (FIR) (kg dry food/kg body weight/day)	0.45	0.315	0.207	0.209	0.0875	0.214
Soil Ingestion Rate (SIR) (kg dry soil/kg body weight/day)	0.0045	0.0079	0.0215	0.00627[c]	0.0028[c]	0.035
Home Range (acres)	0.1	0.08	0.6	--	--	--

[a] Values from MTCA Table 749-4.

[b] Values from EPA's EcoSSL Program (EPA 2007b).

[c] Values are calculated as the 90th percentile values for the proportion of soil in diet derived by EPA (2007b) (3.2% for the vole and 3.0% for the shrew) multiplied by the food ingestion rate from EPA (2007b).

-- Values not provided in EPA's EcoSSL Program (EPA 2007b).

- Highlighted cells show values used to calculate alternative EISCs.
- Although home range information is not used to calculate EISCs, it is provided for possible use in the uncertainty analysis (Section 4.2).
- Data for the woodcock are shown for comparative purposes only.

Table C4-1 – Hazards for Ecological Exposure Area 1

COPEC[a]	Soil EPC (mg/kg)	Alternative EISC (mg/kg)					Hazard Quotient				
		Plants	Soil Biota	Vole	Shrew	Robin	Plants	Soil Biota	Vole	Shrew	Robin
Antimony	4,301	na	78	3,543	155	na	na	55	1	28	na
Arsenic	32,028	18	na	493	402	na	1,779	na	65	80	na
Barium	294.3	na	330	7,356	7,668	na	na	1	0	0	na
Cadmium	28.2	32	140	88.2	2.9	5.1	1	0	0	10	6
Chromium	54.3	na	na	4,759	795	51.4	na	na	0	0	1
Copper	943.4	70	80	3,571	326	313.3	13	12	0	3	3
Iron	67,590	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
Lead	10,092	120	1,700	2,749	431	105.2	84	6	4	23	96
Mercury	4.1	--	--	--	--	--	--	--	--	--	--
Selenium	2.1	0.5	4.1	5.9	3.5	3.9	4	1	0	1	1
Silver	131.3	560	na	na	na	na	0	na	na	na	na
Thallium	3.7	--	--	--	--	--	--	--	--	--	--
Zinc	2,822	160	120	5,606	1,712	1,321	18	24	1	2	2

EPC - exposure point concentration

EISC - ecological indicator soil concentration

na - not available; insufficient toxicity data was available for deriving an alternative EISC

-- constituent was not evaluated by EPA in the EcoSSL program

[a] Constituents of potential ecological concern (COPECs) were identified in Section 2.5.

[b] EPA (2003e) determined that the measurment of total iron in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. EPA recommends that site-specific measurements of soil pH and Eh (oxidation/reduction potential) be used to help evaluate the bioavailability and toxicity of iron. In well-aerated soil between pH 5 and 8, iron is not expected to be toxic to plants (plants being the most sensitive ecological receptor).

Table C4-2 – Hazards for Ecological Exposure Area 2

COPEC[a]	Soil EPC (mg/kg)	Alternative EISC (mg/kg)					Hazard Quotient				
		Plants	Soil Biota	Vole	Shrew	Robin	Plants	Soil Biota	Vole	Shrew	Robin
Antimony	71.92	na	78	3,157.5	155.3	na	na	1	0	0	na
Arsenic	27,439	18	na	493.2	398.9	na	1,524	na	56	69	na
Cobalt	47.76	30.6	na	3,674.5	667.8	231.0	2	na	0	0	0
Copper	741.9	70	80	3,316.7	326.2	313.3	11	9	0	2	2
Iron	105,833	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
Lead	593.6	120	1700	2,095.1	286.3	81.3	5	0	0	2	7
Mercury	0.55	--	--	--	--	--	--	--	--	--	--
Selenium	12.07	0.52	4.1	5.0	5.3	5.5	23	3	2	2	2
Silver	25.78	560	na	na	na	na	0	na	na	na	na
Zinc	306.4	160	120	2,358.8	427.3	398.2	2	3	0	1	1

EPC - exposure point concentration

EISC - ecological indicator soil concentration

na - not available; insufficient toxicity data was available for deriving an alternative EISC

-- constituent was not evaluated by EPA in the EcoSSL program

[a] Constituents of potential ecological concern (COPECs) were identified in Section 2.5.

[b] EPA (2003e) determined that the measurment of total iron in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. EPA recommends that site-specific measurements of soil pH and Eh (oxidation/reduction potential) be used to help evaluate the bioavailability and toxicity of iron. In well-aerated soil between pH 5 and 8, iron is not expected to be toxic to plants (plants being the most sensitive ecological receptor).

Table C4-3 – Hazards for Ecological Exposure Area Area 3

COPEC[a]	Soil EPC (mg/kg)	Alternative EISC (mg/kg)					Hazard Quotient				
		Plants	Soil Biota	Vole	Shrew	Robin	Plants	Soil Biota	Vole	Shrew	Robin
Antimony	3,827	na	78	3,532.4	155.3	na	na	49	1	25	na
Arsenic	12,730	18	na	493.2	382.8	na	707	na	26	33	na
Cadmium	14.8	32	140	69.1	2.6	4.5	0	0	0	6	3
Copper	524.3	70	80	2,952.9	326.2	313.3	7	7	0	2	2
Iron	94,482	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
Lead	16,364	120	1,700	2,816.8	459.2	109.2	136	10	6	36	150
Mercury	1.3	--	--	--	--	--	--	--	--	--	--
Silver	101.7	560	na	na	na	na	0	na	na	na	na
Thallium	3.1	--	--	--	--	--	--	--	--	--	--
Zinc	1,090	160	120	3,920.3	961.4	824.7	7	9	0	1	1

EPC - exposure point concentration

EISC - ecological indicator soil concentration

na - not available; insufficient toxicity data was available for deriving an alternative EISC

-- constituent was not evaluated by EPA in the EcoSSL program

[a] Constituents of potential ecological concern (COPECs) were identified in Section 2.5.

[b] EPA (2003e) determined that the measurment of total iron in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. EPA recommends that site-specific measurements of soil pH and Eh (oxidation/reduction potential) be used to help evaluate the bioavailability and toxicity of iron. In well-aerated soil between pH 5 and 8, iron is not expected to be toxic to plants (plants being the most sensitive ecological receptor).

Table C4-4 – Hazards for Ecological Exposure Area 4

COPEC[a]	Soil EPC (mg/kg)	Alternative EISC (mg/kg)					Hazard Quotient				
		Plants	Soil Biota	Vole	Shrew	Robin	Plants	Soil Biota	Vole	Shrew	Robin
Antimony	675.4	na	78	3,370	155	na	na	9	0	4	na
Arsenic	38,158	18	na	493	405	na	2,120	na	77	94	na
Cadmium	323.3	32	140	193	4.8	8.2	10	2	2	67	40
Cobalt	26.3	30.6	na	3,675	668	231	1	na	0	0	0
Copper	260.9	70	80	2,264	326	313	4	3	0	1	1
Iron	76,199	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
Lead	4,238	120	1,700	2,597	382	98	35	2	2	11	43
Manganese	4,200	1,242	1,242	7,310	7,436	14,054	3	3	1	1	0
Mercury	1.4	--	--	--	--	--	--	--	--	--	--
Selenium	1.4	0.52	4.1	6.1	3.2	3.6	3	0	0	0	0
Silver	13.9	560	na	na	na	na	0	na	na	na	na
Zinc	2,138	160	120	5,063	1,452	1,161	13	18	0	1	2

EPC - exposure point concentration

EISC - ecological indicator soil concentration

na - not available; insufficient toxicity data was available for deriving an alternative EISC

-- constituent was not evaluated by EPA in the EcoSSL program

[a] Constituents of potential ecological concern (COPECs) were identified in Section 2.5.

[b] EPA (2003e) determined that the measurment of total iron in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. EPA recommends that site-specific measurements of soil pH and Eh (oxidation/reduction potential) be used to help evaluate the bioavailability and toxicity of iron. In well-aerated soil between pH 5 and 8, iron is not expected to be toxic to plants (plants being the most sensitive ecological receptor).

Table C4-5 – Hazards for Ecological Exposure Area 5

COPEC[a]	Soil EPC (mg/kg)	Alternative EISC (mg/kg)					Hazard Quotient				
		Plants	Soil Biota	Vole	Shrew	Robin	Plants	Soil Biota	Vole	Shrew	Robin
Aluminum	33,561	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]	[b]
Chromium	104	na	na	4,759	795	51	na	na	0	0	2
Cobalt	31	30.6	na	3,675	668	231	1	na	0	0	0
Copper	114	70	80	1,573	326	313	2	1	0	0	0
Iron	76,199	[c]	[c]	[c]	[c]	[c]	[c]	[c]	[c]	[c]	[c]
Nickel	181	28	280	635	542	684	6	1	0	0	0
Zinc	135	160	120	1,676	250	239	1	1	0	1	1

EPC - exposure point concentration

EISC - ecological indicator soil concentration

na - not available; insufficient toxicity data was available for deriving an alternative EISC

-- constituent was not evaluated by EPA in the EcoSSL program

[a] Constituents of potential ecological concern (COPECs) were identified in Section 2.5.

[b] EPA (2003d) determined that the measurement of total aluminum in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. Potential ecological hazards associated with aluminum were identified based on the measured soil pH. Aluminum is considered to pose a potential ecological risk only when the soil pH is less than 5.5.

[c] EPA (2003e) determined that the measurment of total iron in soil is not suitable or reliable for the prediction of potential toxicity and bioaccumulation. EPA recommends that site-specific measurements of soil pH and Eh (oxidation/reduction potential) be used to help evaluate the bioavailability and toxicity of iron. In well-aerated soil between pH 5 and 8, iron is not expected to be toxic to plants (plants being the most sensitive ecological receptor).

Table C4-6 – Summary Statistics for Soil pH

Area	Number of Samples	Soil pH					
		Minimum	Maximum	Mean	Median	Standard Deviation	Coefficient of Variation
Area 1	48	2.98	6.5	4.035	3.79	0.851	0.211
Area 2	31	1.74	7.2	4.573	4.4	1.207	0.264
Area 3	31	1.7	6.18	4.361	4.2	1.02	0.237
Area 4	34	3.4	7.3	5.17	5.395	0.785	0.152
Area 5	11	4.93	6.97	5.94	5.9	0.60	0.10
Background	60	3.72	5.83	4.83	4.87	0.45	0.09

Table C4-7 – Plant Hazard Quotients Greater Than One

Ecological Exposure Area	Hazard Quotients								
	Arsenic	Cadmium	Cobalt	Copper	Lead	Manganese	Nickel	Selenium	Zinc
1	1,779	--	--	13	84	--	--	--	18
2	1,524	--	2	11	5	--	--	23	2
3	707	--	--	7	136	--	--	5	7
4	2,120	10	--	4	35	3	--	--	13
5	--	--	--	2	--	--	6	--	--

-- constituent did not have an HQ greater than one

Note: Iron poses a potential hazard to plants at ecological exposure areas 1, 2, and 3 based upon the evaluation of soil pH (see Section 4.1). However, HQs could not be calculated using pH data.

Table C4-8 – Soil Biota Hazard Quotients Greater Than One

Ecological Exposure Area	Hazard Quotients						
	Antimony	Cadmium	Copper	Lead	Manganese	Selenium	Zinc
1	55	--	12	6	--	--	24
2	--	--	9	--	--	3	3
3	49	--	7	10	--	--	9
4	9	2	3	2	3	--	18
5	--	--	--	--	--	--	--

-- constituent did not have an HQ greater than one
Note: Iron has not been identified as posing a hazard to soil biota.

Table C4-9 – Vole Hazard Quotients Greater Than One

Ecological Exposure Area	Hazard Quotients			
	Arsenic	Cadmium	Lead	Selenium
1	65	--	4	--
2	56	--	--	2
3	26	--	6	--
4	77	2	2	--
5	--	--	--	--

-- constituent did not have an HQ greater than one
Note: Iron has not been identified as posing a hazard to wildlife.

Table C4-10 – Shrew Hazard Quotients Greater Than One

Ecological Exposure Area	Hazard Quotients						
	Antimony	Arsenic	Cadmium	Copper	Lead	Selenium	Zinc
1	28	80	10	3	23	--	2
2	--	69	--	2	2	2	--
3	25	33	6	2	36	--	--
4	4	94	67	--	11	--	--
5	--	--	--	--	--	--	--

-- constituent did not have an HQ greater than one
Note: Iron has not been identified as posing a hazard to wildlife.

Table C4-11 – Robin Hazard Quotients Greater Than One

Ecological Exposure	Hazard Quotients					
	Cadmium	Chromium	Copper	Lead	Selenium	Zinc
1	6	--	3	96	--	2
2	--	--	2	7	2	--
3	3	--	2	150	--	--
4	40	--	--	43	--	2
5	--	2	--	--	--	--

-- constituent did not have an HQ greater than one
Note: Iron has not been identified as posing a hazard to wildlife.

Table C5-1 – Ecologically Hazardous Constituents

Ecological Exposure Area	Receptor	Hazardous Constituents[a]
1 Process Area	Plants	As, Cu, Fe, Pb, Hg, Tl, Zn
	Soil Biota	Sb, Cu, Pb, Hg, Zn
	Wildlife	Sb, As, Cd, Cu, Pb, Zn
2 Lower Watershed Area	Plants	As, Co, Cu, Fe, Pb, Hg, Se, Zn
	Soil Biota	Cu, Hg, Se, Zn
	Wildlife	As, Cu, Pb, Se
3 Upper Glacier Creek Watershed	Plants	As, Cu, Fe, Pb, Hg, Se, Tl, Zn
	Soil Biota	Sb, As, Cd, Cu, Pb, Hg, Zn
	Wildlife	Sb, As, Cd, Pb
4 Upper Seventysix Creek Watershed	Plants	As, Cd, Cu, Pb, Mn, Hg, Zn
	Soil Biota	Sb, Cd, Cu, Pb, Mn, Hg, Zn
	Wildlife	Sb, As, Cd, Pb
5 Weden Creek Watershed	Plants	Cu, Ni
	Soil Biota	
	Wildlife	Cr

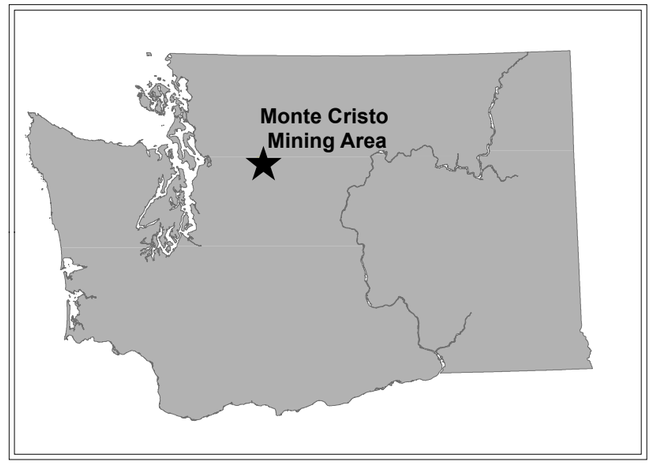
[a] Hazardous constitiuents are COPECs with HQs > 1 (see Section 4.1). In the case of mercury and thallium, alternative EISCs were not available and MTCA default EISCs (see Table 2-7) and natural background were used to make hazard conclusions.

Note: Sb = antimony, As = arsenic, Cd = cadmium, Cr = chromium, Co = cobalt, Cu = copper, Fe = iron, Pb = lead, Mn = manganese, Hg = mercury, Ni = nickel, Se = selenium, Tl = thallium, Zn = zinc

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FIGURES

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Legend

- Roads
- Trails
- Streams
- Lakes

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

Aerial photograph and USGS 1:24k topographicimage used as the basemaps for all figures supplied by the Washington State Department of Ecology.

1 inch = 4,000 feet

0 0.3 0.6 0.9 1.2 1.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Vicinity Map

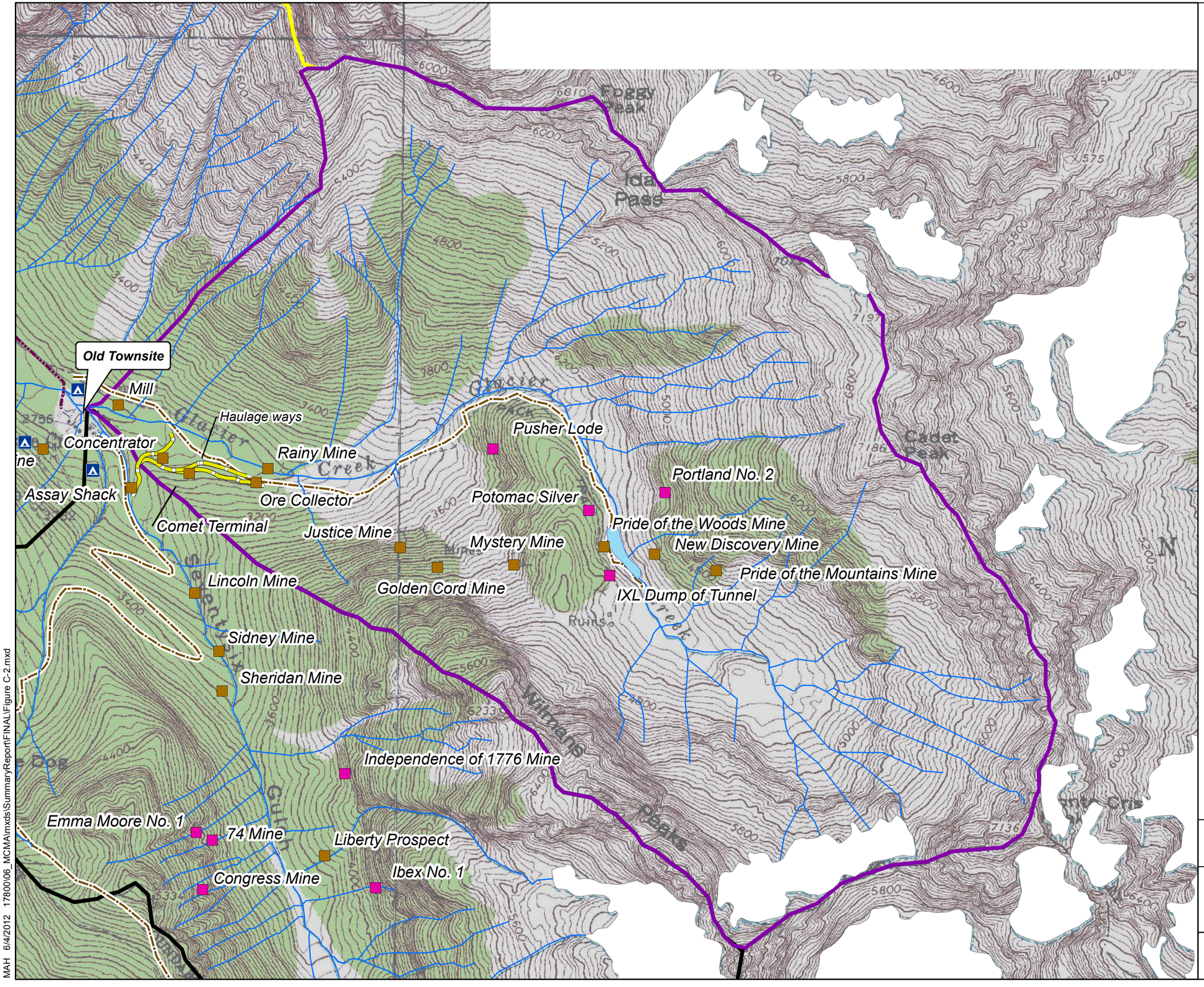
17800-06 5/12

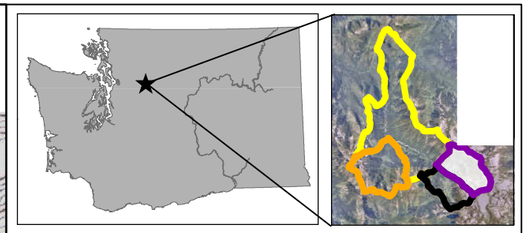
HARTCROWSER

Figure **C-1**

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure C-1.mxd

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Legend

- Mine features sampled in 2011
- Mine features sampled before 2011
- Haulage ways

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Glacier Creek Watershed
Site Map

17800-06 5/12

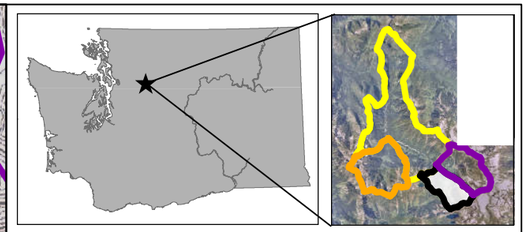
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Figure
C-2A

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure C-2.mxd

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Old Townsite
Sauk Lode - Lower
Mill
Haulage ways
Concentrator
Boston-American Mine
Rainy Mine
Pusher Lode
Assay Shack
Ore Collector
Portland No. 2
Potomac Silver
Comet Terminal
Justice Mine
Pride of the Woods Mine
Mystery Mine
New Discovery Mine
O&B - Lower
Lincoln Mine
Golden Cord Mine
Pride of the Mountain
IXL Dump of Tunnel
Sidney Mine
Sheridan Mine
Silver Lake
Independence of 1776 Mine
Emma Moore No. 1
74 Mine
Liberty Prospect
Congress Mine
Ibex No. 1



Legend

- Mine features sampled in 2011
- Mine features sampled before 2011
- Haulage ways

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Seventysix Gulch Watershed Site Map

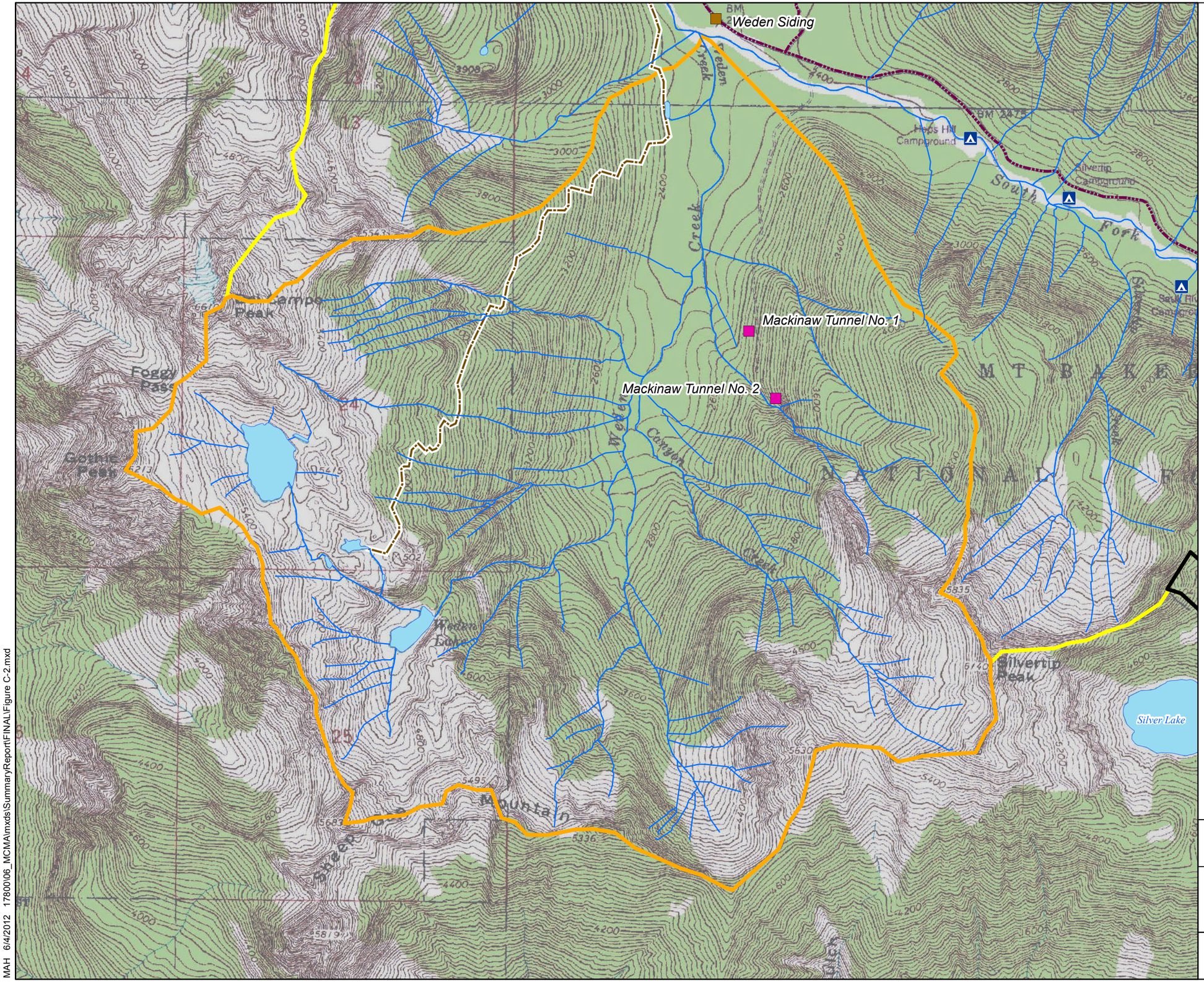
17800-06 5/12

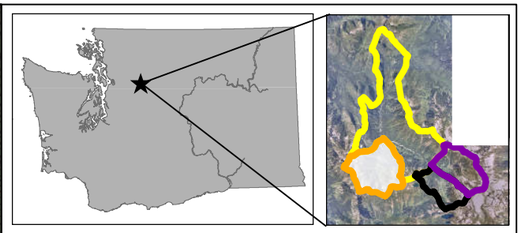
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Figure **C-2B**

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure C-2.mxd

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Legend

- Mine features sampled in 2011
- Mine features sampled before 2011
- Haulage ways

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,500 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Weden Creek Watershed Site Map

17800-06 5/12

HARTCROWSER

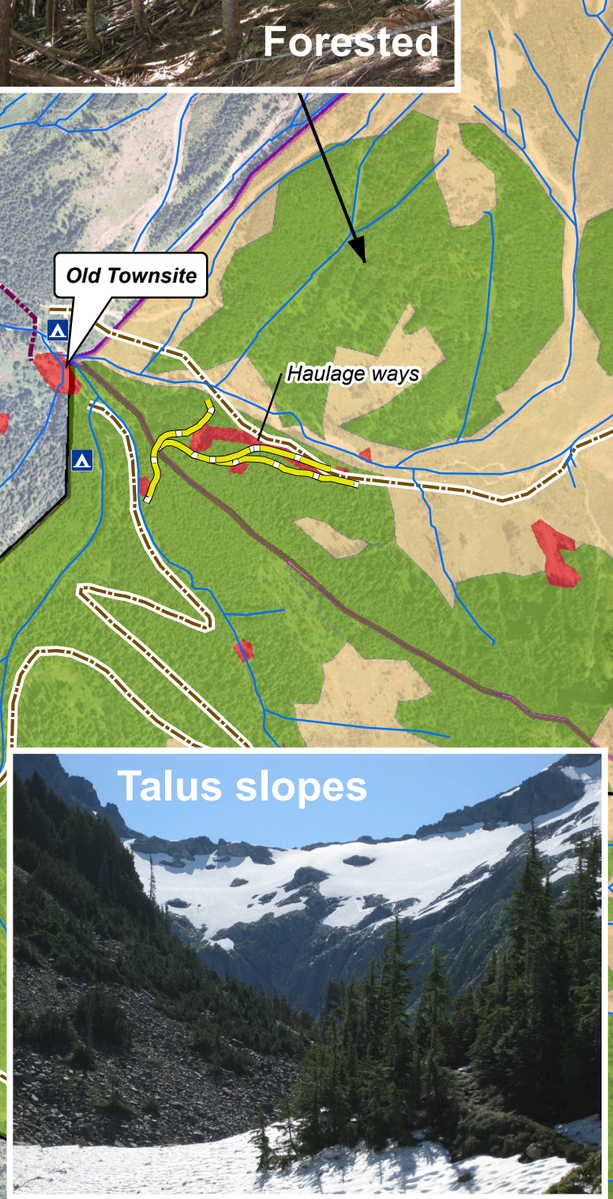
Figure **C-2C**

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReportFINAL\Figure C-2.mxd

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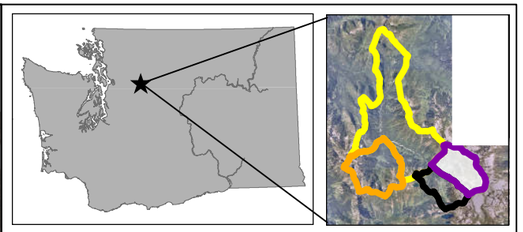






Old Townsite

Haulage ways



Legend

- Haulage ways

Upland habitats

- Talus slopes
- Forested
- Disturbed

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Glacier Creek Watershed
Upland Habitats

17800-06 5/12

HARTCROWSER

Figure
C-3A

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure C-3A.mxd

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Old Townsite

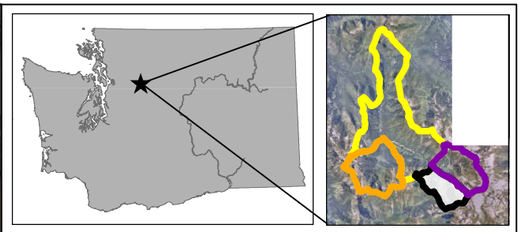
Haulage ways

Silver Lake









Legend

- Haulage ways

Upland habitats

- Talus slopes
- Forested
- Disturbed

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Seventysix Gulch Watershed
Upland Habitats

17800-06 5/12

HARTCROWSER

Figure
C-3B

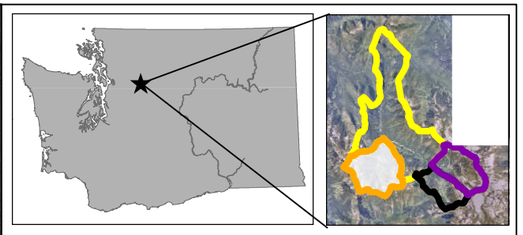
MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReportFINAL\Figure C-3B.mxd

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Legend

- Haulage ways

Upland habitats

- Talus slopes
- Forested
- Disturbed

Features

- Campgrounds
- Roads
- Trails
- Streams
- Lakes
- Ice

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

Silver Lake

N

1 inch = 1,500 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Weden Creek Watershed
Upland Habitats

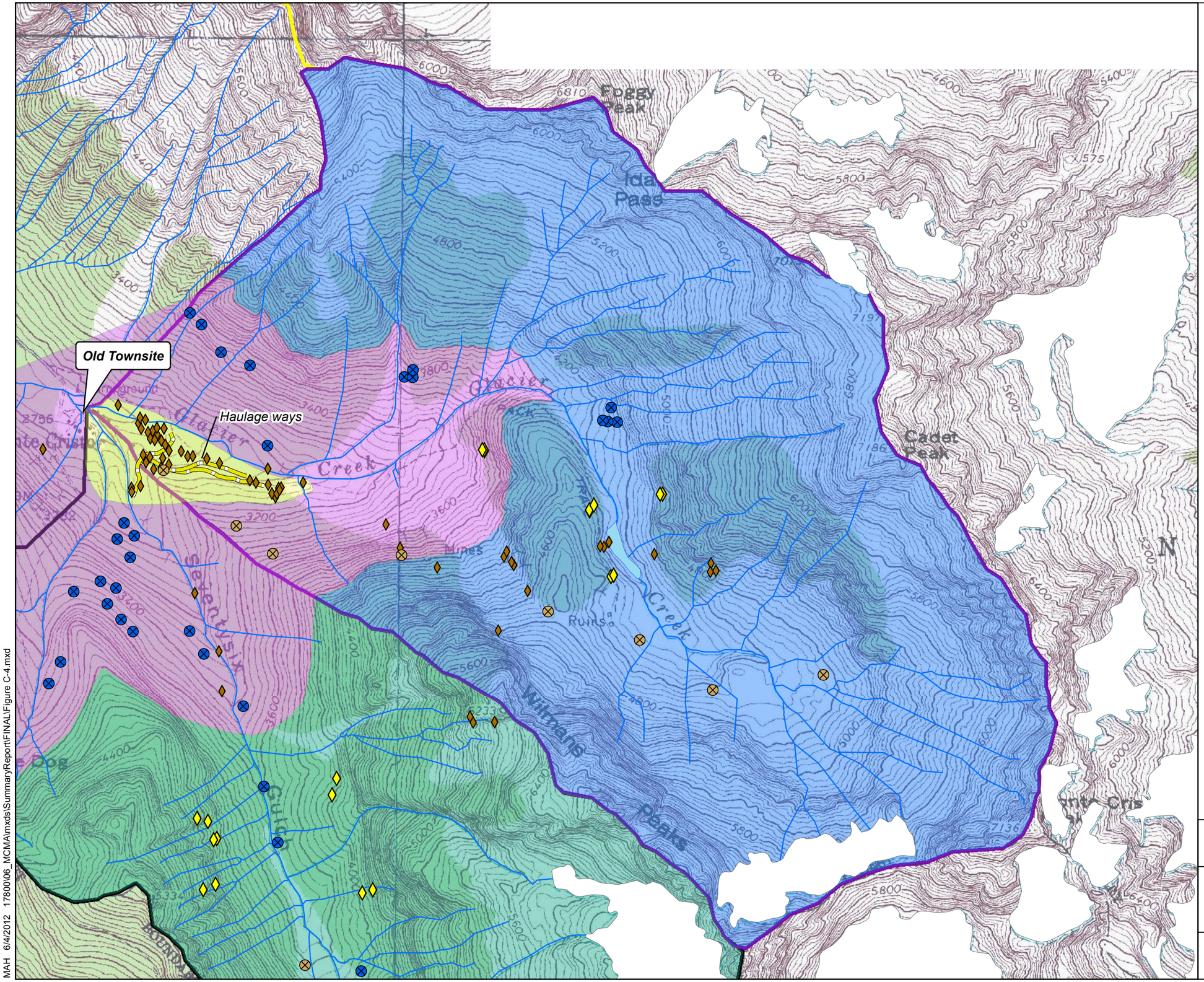
17800-06 5/12

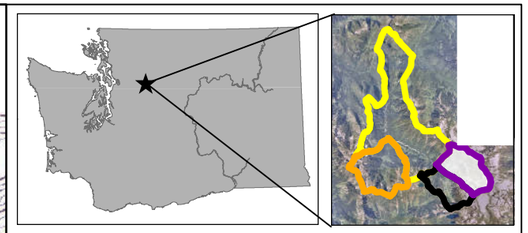
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Figure
C-3C

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure C-3C.mxd

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Legend

Sampled in 2011

- Background
- Mine feature soil sample

Sampled before 2011 by others

- Background soil sample
- Mine feature soil sample
- Haulage ways

Features

- Streams
- Lakes
- Ice

Ecological Exposure Areas

- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upepr Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

Watersheds

- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Glacier Creek Watershed
Ecological Exposure Areas

17800-06 5/12

HARTCROWSER

Figure
C-4A

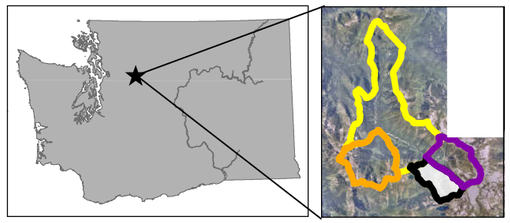
MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReportFINAL\Figure C-4.mxd

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Old Townsite

Haulage ways

Silver Lake



Legend

Sampled in 2011
- Background
- Mine feature soil sample

Sampled before 2011 by others
- Background soil sample
- Mine feature soil sample
- Haulage ways

Features
- Streams
- Lakes
- Ice

Ecological Exposure Areas
- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upepr Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

Watersheds
- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,250 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Seventysix Gulch Watershed Ecological Exposure Areas

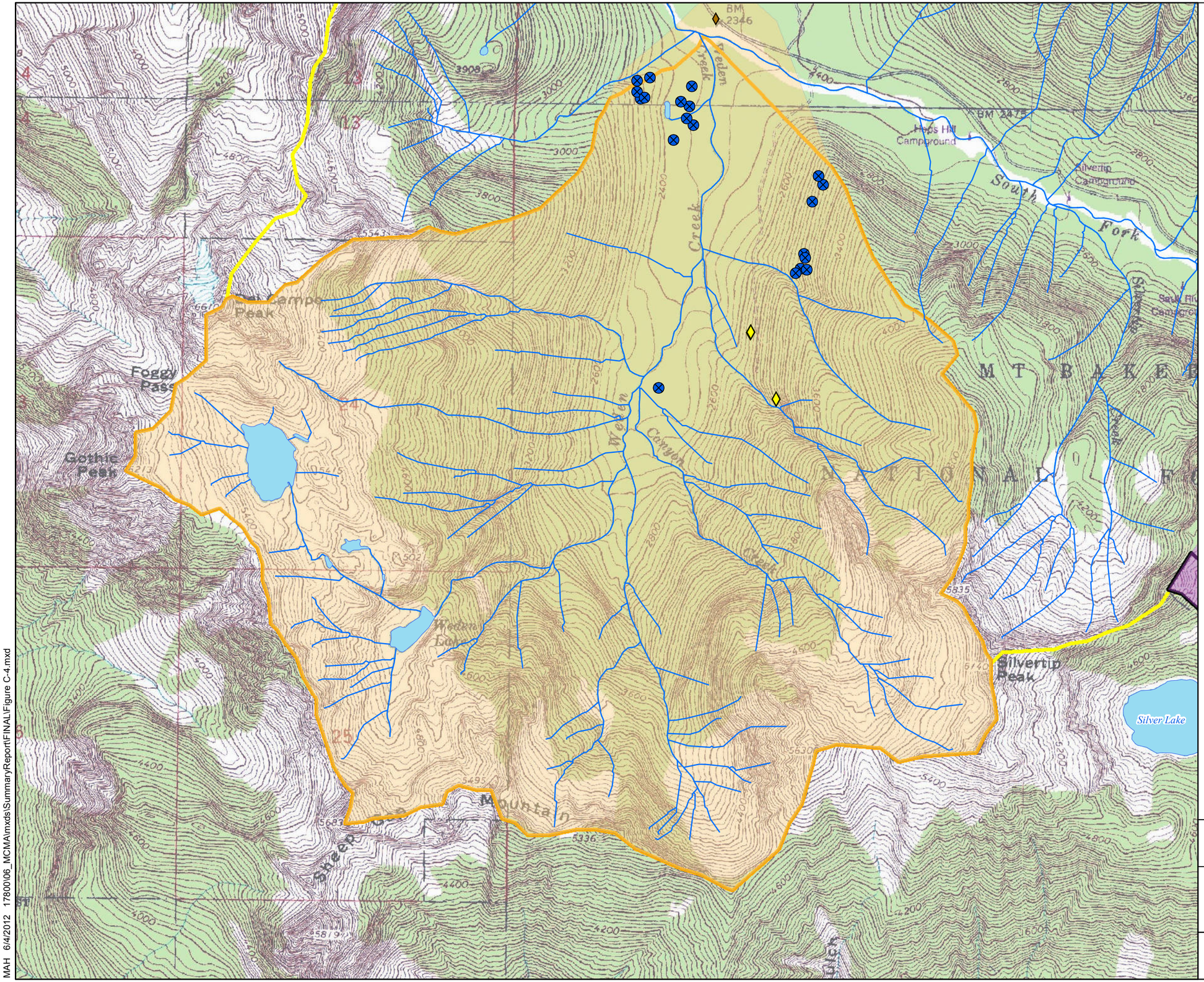
17800-06 5/12

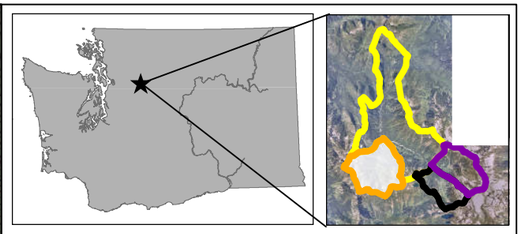
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Figure
C-4B

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure C-4.mxd

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Legend

Sampled in 2011
- Background
- Mine feature soil sample

Sampled before 2011 by others
- Background soil sample
- Mine feature soil sample
- Haulage ways

Features
- Streams
- Lakes
- Ice

Ecological Exposure Areas
- Area 1 - Processing Area
- Area 2 - Lower Watershed Area
- Area 3 - Upper Glacier Creek Watershed
- Area 4 - Upepr Seventysix Gulch Watershed
- Area 5 - Weden Creek Watershed

Watersheds
- South Fork Sauk River Watershed
- Weden Creek Watershed
- Seventysix Gulch Watershed
- Glacier Creek Watershed

N

1 inch = 1,500 feet

0 0.1 0.2 0.3 0.4 0.5 Miles

Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Weden Creek Watershed
Ecological Exposure Areas

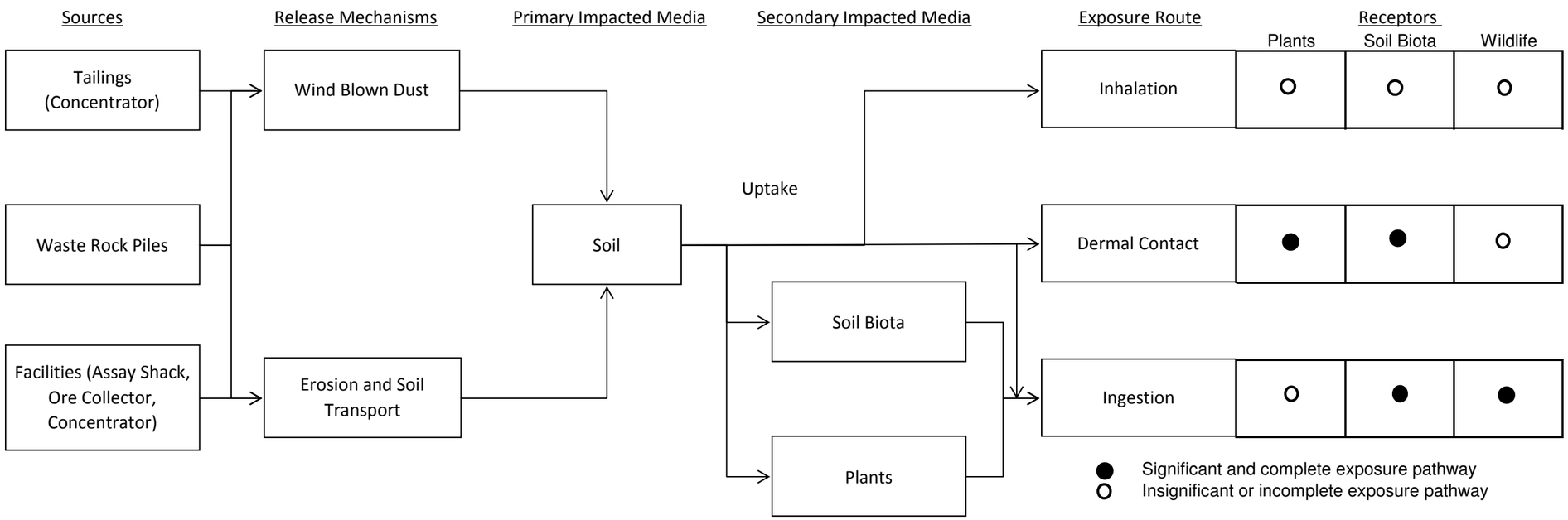
17800-06 5/12

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Figure
C-4C

MAH 6/4/2012 17800\06_MCMA\mxds\SummaryReport\FINAL\Figure C-4.mxd

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Monte Cristo Mining Area Phase 2
Monte Cristo, Washington

Terrestrial Ecological Conceptual Site Model

17800-06 5/12

HARTCROWSER

Figure

C-5

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ATTACHMENT A
ECOLOGICAL FIELD SURVEY REPORT AND FIELD FORMS

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ATTACHMENT A – ECOLOGICAL FIELD SURVEY REPORT AND FIELD FORMS

During our investigation of the above mine sites, we examined the vegetation, on-site terrestrial wildlife (macroinvertebrates, reptiles, amphibians, birds, and mammals), and wildlife in the area around the site. As part of our field investigation, soil excavated for soil samples was thoroughly examined for the presence or absence of earthworms and other subterranean invertebrates. Informal soil pits were also excavated, where possible, within the waste rock and tailings piles encountered at each mine site for the presence of earthworms. However, no earthworms and a limited number of invertebrates (e.g., spiders, centipedes) were observed in the excavated pits and soil samples. We also observed the proximity of the mine or mine feature to existing water bodies and wetlands, readily visible impacts for the existing waste rock (s), and areas immediately adjacent to the waste rock pile(s). The field forms are included at the end of this attachment. Photographs were taken at each location to document vegetation, wildlife use, and other relevant site features.

This section summarizes observations of potential terrestrial receptors in the areas where mine workings were observed.

Glacier Creek Watershed

Four abandoned mines were located in the Glacier Creek watershed and identified as Potomac Silver (waste rock pile samples designated Potomac Silver), Pusher Lode (waste rock pile samples designated Pusher Lode), IXL (waste rock samples designated as IXL), and Portland No. 2 (waste rock samples designated Portland No. 2).

Potomac Silver: On-site vegetation consisted primarily of sparse seedlings and moss. Vegetation on the waste rock pile was patchy and consisted of sparse seedlings at the top of the waste rock pile ranging from approximately 2 to 6 inches in height. Vegetation adjacent to the mine opening and waste rock pile consisted of shrubs dominated by Indian plum (*Oemleria cerasiformis*). No signs of distressed vegetation were observed at this location. Surrounding forested vegetation is dominated by subalpine fir (*Abies lasiocarpa*) and mountain hemlock (*Tsuga mertensiana*).

One spider and one centipede were observed immediately adjacent to the waste rock sample location. Bird calls were heard but no birds were observed on site. No observations of other macroinvertebrates or wildlife (reptiles, amphibians, or mammals) were observed on site or in the immediate vicinity of the

mine. Evidence of wildlife including bear scat, bear and deer tracks, and bird calls were noted near the site.

One surface water body was observed within approximately 150 feet of the mine site. This surface water body is located downgradient of the mine. No surface water was observed flowing from the mine. In addition, no wetlands were observed on or near the site.

On-site soil consisted of silty sand with a well-established duff/organic layer. Soil in the waste rock sample pits was wet in the upper soil horizon. Refer to the field forms on pages C-A-10 through C-A-13.

IXL Mine: On-site vegetation consisted primarily of dense shrubs and emergent vegetation. Vegetation on the waste rock pile was greater than 5 feet in height. Vegetation in the surrounding area was extensive and dominated by a subalpine fir forest. No signs of distressed vegetation were observed at this location.

No observations of macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were recorded on site or in the immediate vicinity of the mine. Evidence of wildlife use in the basin was observed but not near the site.

A stream was observed approximately 200 feet upslope of the mine flowing down into Glacier Creek. Seepage was observed exiting the mine and flowing downslope toward a moist area supporting potential wetlands on the waste rock pile near the adit. The wetland area was located approximately 3 to 6 feet downslope of the adit and was dominated by unidentified shrubs and emergent vegetation.

On-site soil consisted of sandy silt. Abundant duff/organic matter was present on and immediately adjacent to the waste rock pile. Soil in our sample pit was wet throughout the soil profile. Refer to the field forms on pages C-A-15 through C-A-17.

Pusher Lode: On-site vegetation consisted primarily of patchy shrubs. Vegetation on the edge of the waste rock pile was also patchy and dominated by Western redcedar (*Thuja plicata*) saplings generally ranging from approximately 2 to 5 feet in height. Limited vegetation was present adjacent to the mine opening. Vegetation in the surrounding area was extensive and dominated by evergreen forest. No signs of distressed vegetation were observed at this location.

One slug was observed at the waste rock sample location. A small mammal burrow was observed in a tree stump located on the waste rock pile. No observations of other macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on the site or in the immediate vicinity of the mine. Evidence of wildlife use in the basin was observed but not near the mine.

An intermittent stream flowing into Glacier Creek is located near the mine. No surface water was observed exiting the mine. No wetlands were observed on or near the site.

On-site soil consisted of gravel. Limited duff/organic matter was present in the waste rock pile sample pit. Soil in our sample pit was damp to moist throughout the soil profile. Refer to the field forms on pages C-A-19 through C-A-21.

Portland No. 2: On-site vegetation consisted primarily of limited shrubs and herbaceous vegetation including slide alder (*Alnus sinuata*), lady fern (*Athyrium filix-femina*), goat's beard (*Aruncus dioicus*), Indian hellebore (*Veratrum viride*), maidenhair fern (*Adiantum pedatum*), and unidentified grasses. Vegetation on the waste rock pile was limited to shrubs and herbaceous plants generally ranging from approximately 2 inches to 5 feet in height. Limited vegetation was present upslope and downslope of the mine opening. Vegetation in the surrounding area was extensive and dominated by deciduous forest. No signs of distressed vegetation were observed at this location.

No observations of macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site. Evidence of wildlife use near the mine included observations of ladybugs, birds, butterflies, and bear markings east of the waste rock pile. In addition, small mammal (chipmunk and pika) calls were heard in the immediate vicinity of the mine.

Two drainage valleys exist to the east and west of the mine and waste rock pile. An unnamed stream flowing into Glacier Creek is located in the vicinity of the mine. No surface water was observed exiting the mine. No wetlands were observed on or near the site.

On-site soil consisted of gravelly sandy silt. Limited duff/organic matter was present on the waste rock pile. Soil in our sample pit was damp to moist in the upper soil horizon and transitioned to wet conditions at lower depths (6 to 12 inches). Refer to the field forms on pages C-A-23 through C-A-25.

Seventysix Gulch Watershed

Seven abandoned mines were located in the Seventysix Gulch watershed and identified as the Emma Moore 2 (waste rock pile samples designated Emma Moore 2), 74 Mine (waste rock pile samples designated 74 Mine), 76 Mine (waste rock pile samples designated 76 Mine), Congress (waste rock pile samples designated Congress), IBEX (waste rock pile samples designated IBEX), Sauk 1, and O&B (waste rock samples designated O&B).

Independence of 1776 Mine: On-site vegetation consisted primarily of shrubs and herbaceous plants including alder, speedwell (*Veronica* sp.), and unidentified grasses. Vegetation on the tailings pile was sparse and generally ranged from 2 to 5 feet in height. Vegetation adjacent to the mine opening and tailings pile consisted of shrubs dominated by alder. No signs of distressed vegetation were observed at this location.

One black bear was observed in the immediate vicinity of the mine. No observations of other macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site or in the immediate vicinity of the mine. Evidence of wildlife use including deer tracks and bird calls were documented near the site.

Surface water was observed flowing from the mine opening into a defined drainage channel that bisected the tailings pile. Surface flows were observed approximately halfway downslope of the tailings pile before transitioning to subsurface flow. A small wetland area along the streambank adjacent to the mine opening was observed.

On-site soil consisted of silty sandy gravel with a well-established duff/organic layer near the mine opening. On-site soils at the toe of the tailings pile consisted of silty, very gravelly with a limited duff/organic layer. Soil in the tailings sample pit was wet in the upper soil horizon near the mine opening, and soil was damp throughout the soil profile at the toe of the tailings pile. Refer to the field forms on pages C-A-27 through C-A-32.

Emma Moore No. 1: On-site vegetation consisted primarily of herbaceous plants including unidentified grasses and conifer saplings. Vegetation on the waste rock pile was sparse and generally ranged from approximately 2 inches to 5 feet in height. Vegetation adjacent to the mine opening and waste rock pile was extensive and consisted of mature forest dominated by Western redcedar, Western hemlock (*Tsuga heterophylla*), and conifer saplings. No signs of distressed vegetation were observed at this location.

No observations of macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site. One black bear (*Ursus americanus*) was observed in the immediate vicinity of the mine. Evidence of wildlife including bear scat, bear and deer tracks, and bird and pika (*Ochotona princeps*) calls were observed near the site.

No surface water bodies were observed within 200 feet or more of the mine site. Surface water was present at the mine opening in a depression but no surface water was observed flowing from the mine. In addition, no wetlands were observed on or near the site.

On-site soil consisted of silty sand, and a limited duff/organic layer. Soil in the waste rock sample pits was damp throughout the soil profile. Refer to the field forms on pages C-A-34 through C-A-37.

74 Mine: On-site vegetation consisted primarily of shrubs and herbaceous plants including vine maple (*Acer circinatum*), lady fern, and goat's beard. Vegetation on the waste rock pile was dense within the upper half of the waste rock pile with limited to sparse coverage within the lower half of the waste rock pile. Vegetation generally ranged from 2 to 5 feet in height. Vegetation adjacent to the mine opening and waste rock pile was sparse and consisted of moss and herbaceous plants. No signs of distressed vegetation were observed at this location.

No observations of macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site or in the immediate vicinity of the mine. Evidence of wildlife including bird calls were heard near the site.

A stream was observed north and adjacent to the waste rock pile and mine opening. No surface water was observed flowing from the mine opening. In addition, no wetlands were observed on or near the site.

On-site soil consisted of gravelly sandy silt with a limited duff/organic layer. Soil in the waste rock sample pits was wet throughout the soil profile. Refer to the field forms on pages C-A-39 through C-A-41.

IBEX No. 1: On-site vegetation consisted primarily of herbaceous plants including bracken fern (*Pteridium aquilinum*) and Western redcedar. Vegetation on the waste rock pile was limited and generally ranged from approximately 12 inches to over 50 feet in height. Vegetation at the mine opening included maidenhair fern transitioning to cedar and bracken fern downslope on the waste rock pile. Vegetation in the vicinity of the mine consisted of forestland. No signs of distressed vegetation were observed at this location.

Spiders and unidentified terrestrial macroinvertebrates were observed within the waste rock sample locations. Deer flies (*Chrysops* sp.), deer tracks, and mammal scat were observed on site. No observations of other macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site or in the immediate vicinity of the mine.

A stream was observed within 200 feet or more of the mine site. No surface water was observed flowing from the mine. In addition, no wetlands were observed on or near the site.

On-site soil consisted of silty sandy gravel to silty sand. Soil in the waste rock sample pits was moist in the upper soil horizon and transitioned to wet condi-

tions at lower depths (about 12 inches). Refer to the field forms on pages C-A-43 through C-A-45.

O&B Mine: On-site vegetation was limited and consisted primarily of shrubs and herbaceous plants including maidenhair fern, false lily-of-the-valley (*Maianthemum dilatatum*), lady fern, Indian hellebore, unidentified grasses, and moss. Vegetation on the waste rock pile generally ranged from 2 to 5 feet in height. Vegetation adjacent to the mine opening, waste rock pile, and in the vicinity of the mine included alder, hemlock, and dense forestland. No signs of distressed vegetation were observed at this location.

No observations of macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site. Bear markings were observed adjacent to the upper waste rock pile. Bird calls were heard near the shoreline of the lake in the immediate vicinity of the mine.

A lake was observed within 500 feet or more of the mine site. No surface water connection was observed between the lake and the mine site. Wetlands were observed along the shoreline of the lake. No surface water was observed flowing from the mine. No wetlands were observed on site.

On-site soil consisted of silt. Soil in the waste rock sample pits was damp in the upper soil horizon and transitioned to wet conditions at lower depths (about 12 inches). Refer to the field forms on pages C-A-47 through C-A-49.

Congress Mine: On-site vegetation consisted primarily of shrubs and herbaceous plants including alder, maple, fir, cedar, and ferns. Vegetation on the waste rock pile was extensive to limited in areas and generally less than 2 feet in height. Vegetation adjacent to the mine opening and waste rock pile consisted of thistle (*Cirsium* sp.) and maidenhair fern with rocky ridges and cliffs surrounding the drainage channel, which extended downslope from the mine opening. Near the toe of the drainage channel and in low to moderately sloped areas dominant vegetation included alder. No signs of distressed vegetation were observed at this location.

No observations of macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site or in the immediate vicinity of the mine.

A drainage channel was observed within approximately 30 feet of the mine site. Water was observed dripping down from above the mine opening but no surface water was observed flowing from the mine. In addition, no wetlands were observed on or near the site.

On-site soil consisted of silty sandy gravel. Soil in the waste rock sample pits was moist throughout the soil profile. Refer to the field forms on pages C-A-51 through C-A-53.

Sauk Lode – Lower: On-site vegetation was extensive and consisted primarily of forested and shrub plant communities including subalpine fir, mountain hemlock, fir, maidenhair fern, vine maple, Devil's club (*Oplopanax horridus*), huckleberry (*Vaccinnium* sp.), blackberry (*Rubus* sp.), and moss. Vegetation on the waste rock pile was patchy to dense and generally ranged from approximately 2 to over 50 feet in height. Hemlock and fir trees surround the mine adit. Vegetation in the vicinity of the mine consisted of dense forestland. No signs of distressed vegetation were observed at this location.

No observations of macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site. Bear markings were observed on a tree in the immediate vicinity of the mine.

A stream was observed within 300 feet of the mine site. Surface water was observed within a drainage channel located southwest and downgradient of the mine. The channel was vegetated with moss. No wetlands were observed on or near the site.

No soils samples were taken at this location due to the erosion of on-site soil. Refer to the field forms on pages C-A-55 through C-A-57.

Weden Creek Watershed

Two abandoned mines were located in the Weden Creek watershed and identified as the Mackinaw Tunnel No. 1 (waste rock pile samples designated Weden 1) and the Mackinaw Tunnel No. 2 (waste rock sample designated Weden 2).

Mackinaw Tunnel No. 1: On-site vegetation consisted primarily of herbaceous plants including lady fern, bleeding heart (*Dicentra formosa*), miners lettuce (*Claytonia sibirica*), sword fern (*Polystichum munitum*), and piggyback plant (*Tolmiea menziesii*). Vegetation on the waste rock pile was patchy and generally ranged from approximately 6 inches to 5 feet in height. Vegetation adjacent to the mine opening and waste rock pile consisted of forestland dominated by Western hemlock and salmonberry (*Rubus spectabilis*) within the open area created by the waste rock pile. No signs of distressed vegetation were observed at this location.

Two spiders were observed immediately adjacent to one of the waste rock sample locations. No observations of other macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site or in the immediate vicin-

ity of the mine. Evidence of wildlife including bear scat, bear and deer tracks, and bird calls were documented near the site.

No surface water bodies were observed within 200 feet or more of the mine site. No surface water was observed flowing from the mine. In addition, no wetlands were observed on or near the site.

On-site soil consisted of silty loam with coarse rock and gravel, and a well-established duff/organic layer. Soil in the waste rock sample pits was moist in the upper soil horizon and transitioned to wet conditions at lower depths (about 12 inches). Refer to the field forms on pages C-A-59 through C-A-61.

Mackinaw Tunnel No. 2: On-site vegetation consisted primarily of herbaceous plants including lady fern, maidenhair fern, bedstraw (*Galium* sp.), salmonberry, currant (*Ribes* sp.), and unidentified grasses. Vegetation on the waste rock pile was sparse and generally ranged from approximately 6 to 15 inches in height. Limited vegetation was present adjacent to the mine opening. The surrounding area contained primarily rock and talus with a few medium-sized trees and small shrubs. No signs of distressed vegetation were observed at this location.

One spider was observed at the waste rock sample location. No observations of other macroinvertebrates or wildlife (reptiles, amphibians, birds, or mammals) were observed on site or in the immediate vicinity of the mine. Evidence of wildlife use in the basin was observed but not near the site.

An unnamed tributary of Weden Creek is located immediately adjacent to the waste rock pile (approximately 40 feet of the mine opening). Because of the proximity of the pile to the tributary, it can be assumed that waste rock material has entered the channel. No surface water was observed exiting the mine. Groundwater flow was observed in the sample pit. No wetlands were observed on or near the site.

On-site soil consisted of coarse rock and gravel. Limited duff/organic matter was present on the waste rock pile. Soil in our sample pit was moist in the upper soil horizon and transitioned to wet conditions below 6 inches where flowing groundwater was observed. Refer to the field forms on pages C-A-63 through C-A-65.

POTOMAC SILVER

TEE Checklist

Site Name	Potomac Silver
Date of Site Visit	8-26-11
Site Location	Glacier Creek Basin
Site Visit Conducted by	MATT

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	Limited
Vegetation in the locality of the site (None, Limited, Extensive)	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive) spider, centipede	L
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L
Other readily observable impacts (None, Discuss below)	D
Discussion: open tunnel w/ rock extending downslope, smaller rock @ top w/ larger rocks downslope ~ 30 ft. no vegetation @ opening, sparse seedlings @ top of WK pile moss covered rock ; shrub (photo 4081) immediately adjacent to opening dominant trees - subalpine fir ; mountain hemlock	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded 0% on site	90
Dominant vegetation type (Evergreen, Deciduous, Mixed)	E
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	>12"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) – rodent feces @ toe of WK pile, bird calls	birds mammals
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub <5% on site	5-10%
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	S
Prominent height of vegetation (<2', 2' to 5', >5')	P
Density of vegetation (Dense, Patchy, Sparse)	S
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	
Terrestrial – Ruderal	
Percentage of site that is ruderal no non-native / weedy dist. sp. observed	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	~150'

in vicinity

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **Ri**vers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **Di**tches, **Ch**annel Waterway)	S
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	—
Source water (**R**iver, **St**ream, **G**roundwater, **I**ndustrial discharge, **Su**rface water runoff)	S
Water discharge point (**N**one, **R**iver, **St**ream, **G**roundwater, **W**etlands impoundment)	S
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **Sc**rub/shrub, **W**ooded)	—
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	—
Bank environment (cover: **V**egetated, **B**are / slope: **St**eep, **G**radual / height (in feet))	—
Obvious or designated wetlands present (**Y**es / **N**o)	N
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **St**anding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

*** P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
well established duff / organic layer
wet, dark grayish brown, silty fine-medium sand

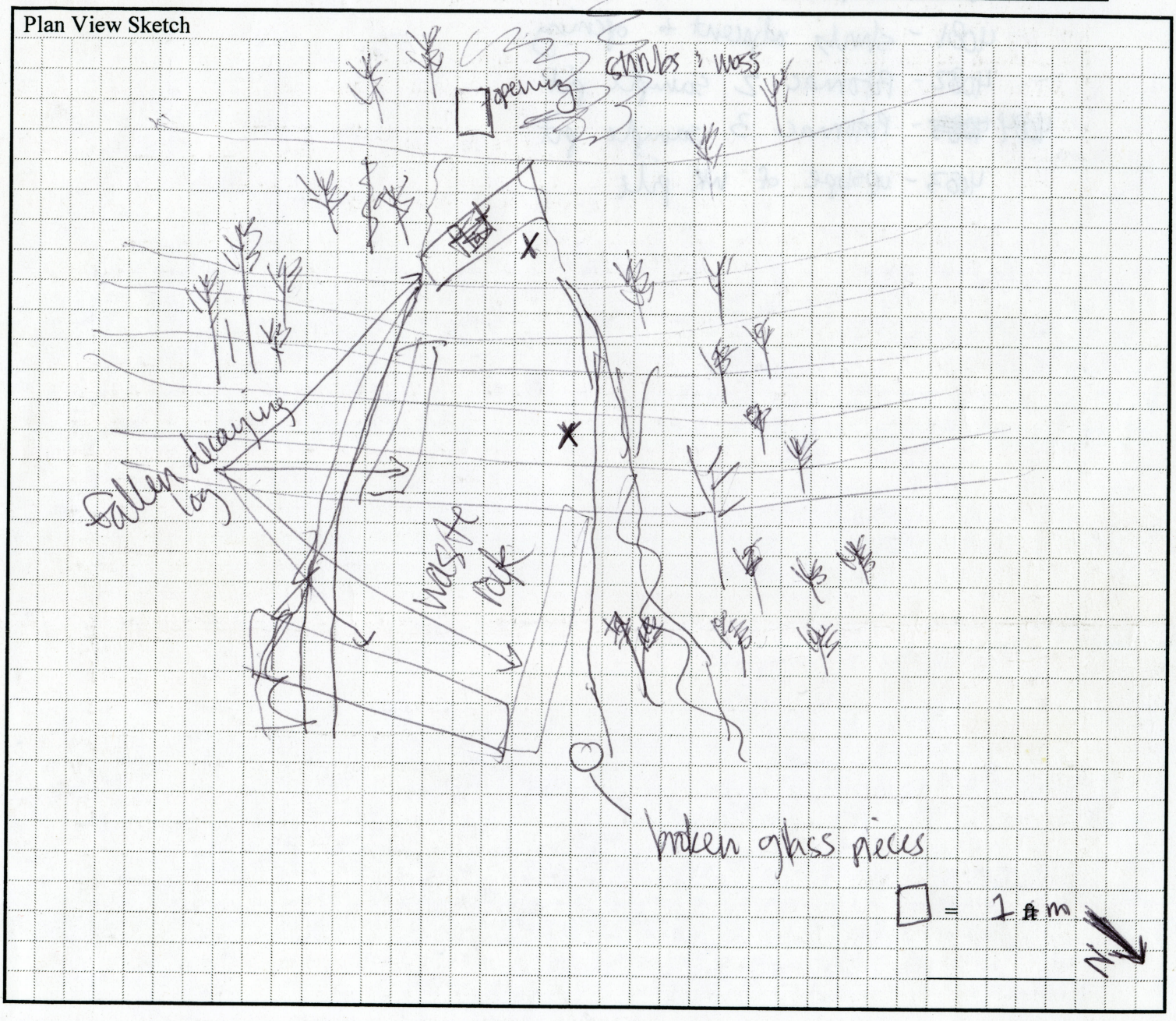
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID	Potomac Silver
Date	8-26-11
Weather	sunny, warm

Plan View Sketch



INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

X TEE locations

photos – opening 4077 & 78 facing due SW/West (upslope)
from opening 4079 NE facing
top of WK pile 4080 facing ~~West~~
4081 – shards adjacent to opening
4082 – Potomac 2 sample pit
~~4084~~ ~~4085~~ – Potomac 3 sample pit
4083 – upslope of WK pile

IXL MINE

TEE Checklist

Site Name	IXL
Date of Site Visit	8-26-11
Site Location	Glacier Creek Basin
Site Visit Conducted by	MAH

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive) shrubs	E
Vegetation in the locality of the site (None, Limited, Extensive) conifers	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	N
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	N
Other readily observable impacts (None, Discuss below)	D
Discussion:	
steep slope, emergent veg / disturbed	
dominant conifer is subalpine fir, immature subalpine fir patchy immediately downslope	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded 50% in vicinity	<5% onsite
Dominant vegetation type (Evergreen, Deciduous, Mixed)	E
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	<6"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	—
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	50
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	Sh
Prominent height of vegetation (<2', 2' to 5', >5')	>5'
Density of vegetation (Dense, Patchy, Sparse)	D
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	—
Terrestrial – Ruderal	
Percentage of site that is ruderal no non-native sp.	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash) ~200 ft	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (Lakes, Ponds, Vernal pools, Impoundments, Lagoon, Reservoir, Canal, Rivers, Streams, Intermittent Streams, Dry wash, Ditches, Channel Waterway)	S
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	—
Source water (River, Stream, Groundwater, Industrial discharge, Surface water runoff)	SW
Water discharge point (None, River, Stream, Groundwater, Wetlands impoundment)	S
Nature of bottom (Muddy, Rocky, Sand, Concrete, Other)	Rocky/sandy
Vegetation present (Submerged, Emergent, Floating, Scrub/shrub, Wooded)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Bank environment (cover: Vegetated, Bare / slope: Steep, Gradual / height (in feet))	—
Obvious or designated wetlands present (Yes / No)	
Wetlands suspected as site is/has (Adjacent to water body, in Floodplain, Standing water, Dark wet soils, Mud cracks, Debris line, Water marks)	
Size (acres) and depth (feet) of suspected wetlands	

*** P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
soil wet, sandy silt w abundant organics

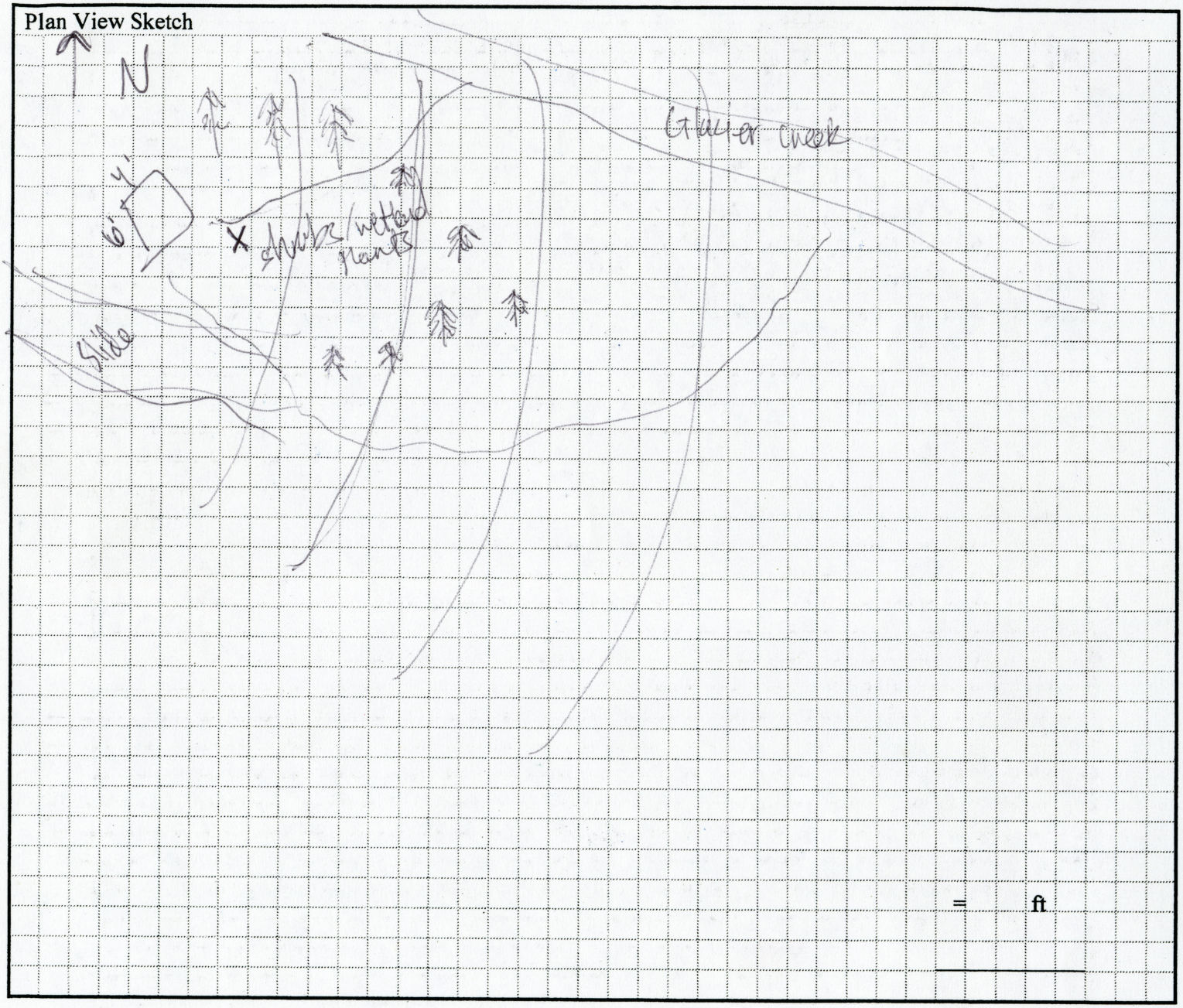
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID _____
Date _____
Weather _____

Plan View Sketch



= ft

INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

PUSHER LODE

TEE Checklist

Site Name	~~Pit~~ Pusher Lode
Date of Site Visit	9/27/11
Site Location	
Site Visit Conducted by	ASK/MAH

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	L
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	
Other readily observable impacts (None, Discuss below)	
Discussion: several young cedars on edge of WK pile (3 adjacent to S1), shrubs along west edge of WK pile;	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	40%
Dominant vegetation type (Evergreen, Deciduous, Mixed)	E
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	15
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	
Prominent height of vegetation (≤2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	P
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	
Terrestrial – Ruderal	
Percentage of site that is ruderal	NA
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	900 ft

in vicinity

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **D**itches, **C**hannel Waterway)	S 4/or I/S
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	Hacker Creek
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	—
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	—
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	B/S
Obvious or designated wetlands present (**Y**es / **N**o)	N
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

* **P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
1 slug observed
small mammal burrow in tree stump (out) on WR pile
surroundings are cliff face : evergreen forest
rocky substrate w/ < 1" organic matter

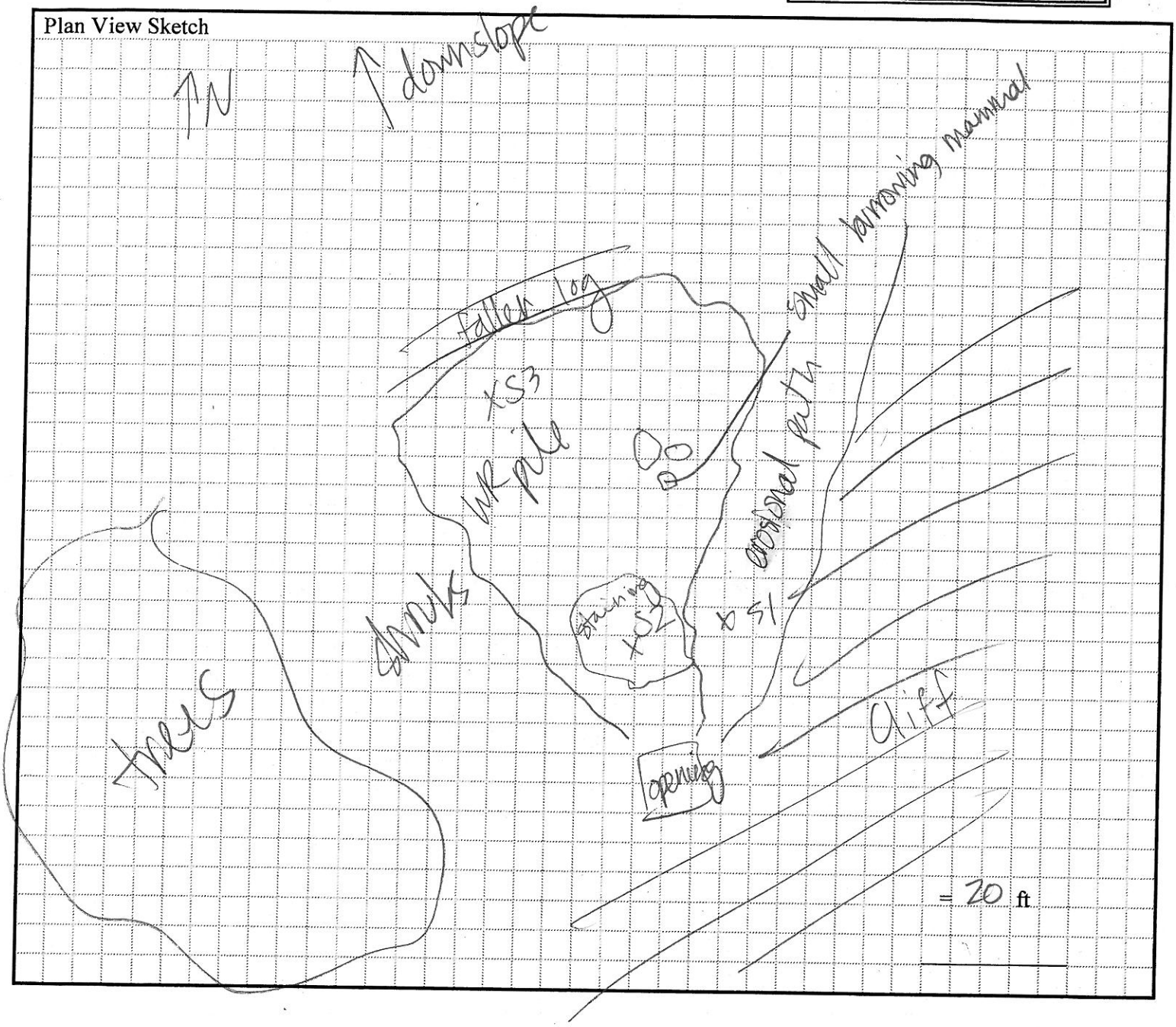
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils. Y
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters. Y - seasonally dependent
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth). Y
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface. Y
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil. other food locations readily available

AML FEATURE INVENTORY/MONITORING

Feature ID _____
Date _____
Weather _____

Plan View Sketch



INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

Updated July 2011

PORTLAND NO. 2

TEE Checklist

Site Name	Portland No. 2
Date of Site Visit	9/29/11
Site Location	
Site Visit Conducted by	ASK / MAH

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive) ladybugs, bird calls, butterflies	L
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive) chipmunks, ladybugs	L
Other readily observable impacts (None, Discuss below)	D
Discussion: Alder, lady fern, goat's beard, corn lily, maidenhair fern immediately outside (up-slope) of opening	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	5
Dominant vegetation type (Evergreen, Deciduous, Mixed)	D
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	<6"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) – chipmunks, bird calls, pica	
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	10/80
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	SH
Prominent height of vegetation (<2', 2' to 5', >5')	2-5'
Density of vegetation (Dense, Patchy, Sparse)	D
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	
Terrestrial – Ruderal	
Percentage of site that is ruderal no non-native weedy dist. sp. present	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	

in vicinity

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **L**agoon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **D**itches, **C**hannel Waterway)	S
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	—
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	S
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	S
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	—
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther) bird calls	B
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	bare / 4
Obvious or designated wetlands present (**Y**es / **N**o)	N
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

*** P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
Thick alder east and south of WR pile, wet soil near opening with emergent plants
Heard bird calls @ the opening, saw ladybugs, chipmunks, & butterflies near WR pile
Bear markings east of WR pile
No critters in soil

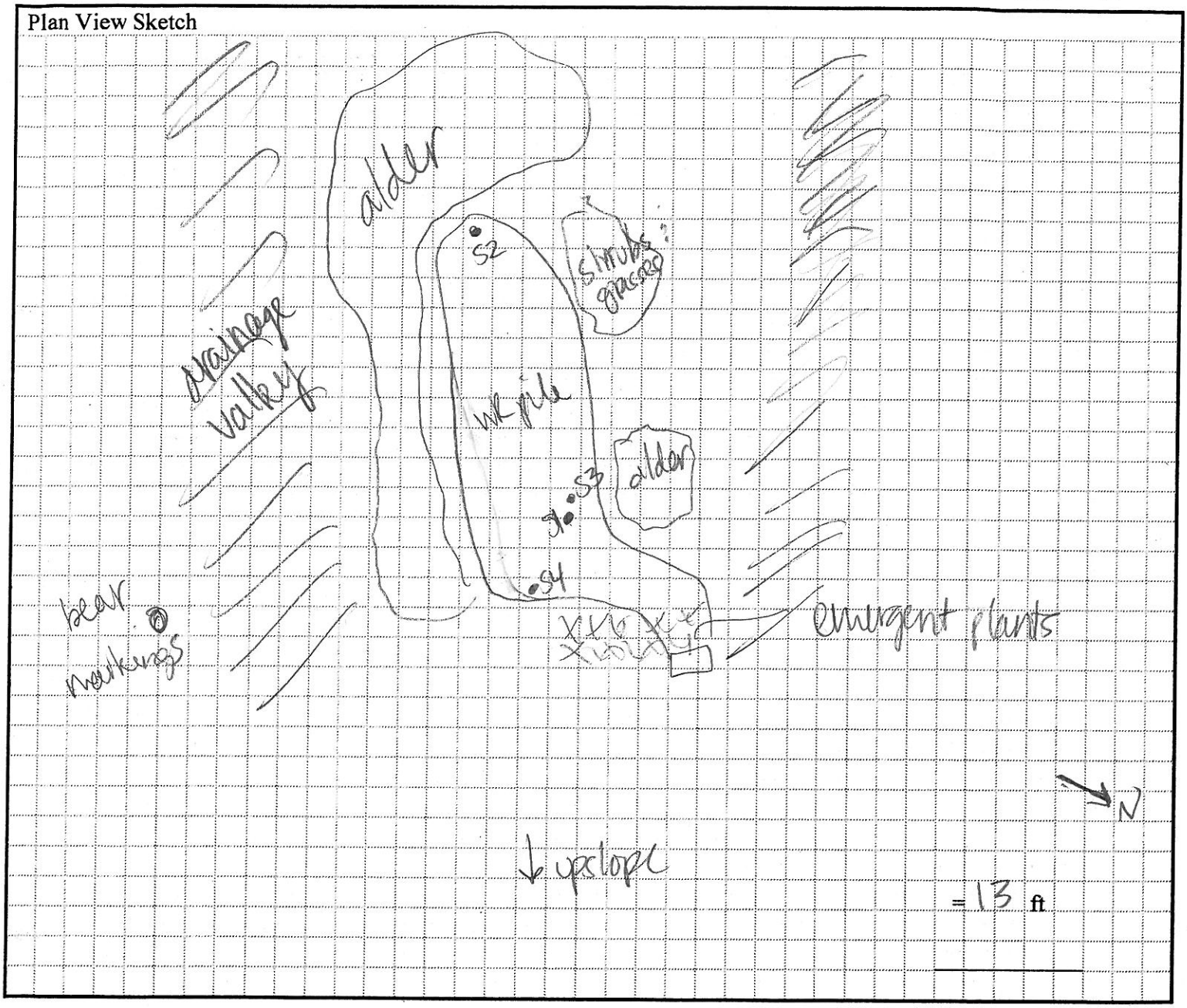
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID	
Date	
Weather	

Plan View Sketch



INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

INDEPENDENCE OF 1776 MINE (76 MINE)

TEE Checklist

Site Name	76 Mine
Date of Site Visit	9-13-11
Site Location	76 Creek
Site Visit Conducted by	Abercrombie, McDonald

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	N
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L-E
Other readily observable impacts (None, Discuss below)	D
Discussion: Old wood in stream/Adj. to mine opening.	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	
Dominant vegetation type (Evergreen, Deciduous, Mixed)	
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	30%
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	Weedy/S/G
Prominent height of vegetation (<2', 2' to 5', >5')	2'-5' & <2'
Density of vegetation (Dense, Patchy, Sparse)	P
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	None
Terrestrial – Ruderal	
Percentage of site that is ruderal	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	0-5'

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **La**goon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **D**itches, **C**hannel Waterway)	S
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	2-3 cfs
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	G
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	G, R
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	M, R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded) ON BANK	E
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	V / 3"
Obvious or designated wetlands present (**Y**es / **N**o)	Y
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	A D W
Size (acres) and depth (feet) of suspected wetlands	<1' 200s+/- RIVERINE

* **P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
DEER + BEAR USE IN VICINITY & LIKELY COUGAR
SALAMANDERS possibly PRESENT IN STREAM
TAILINGS pile split by STREAM draining from MINE
STREAM – SURFACE & SUBSURFACE FLOW

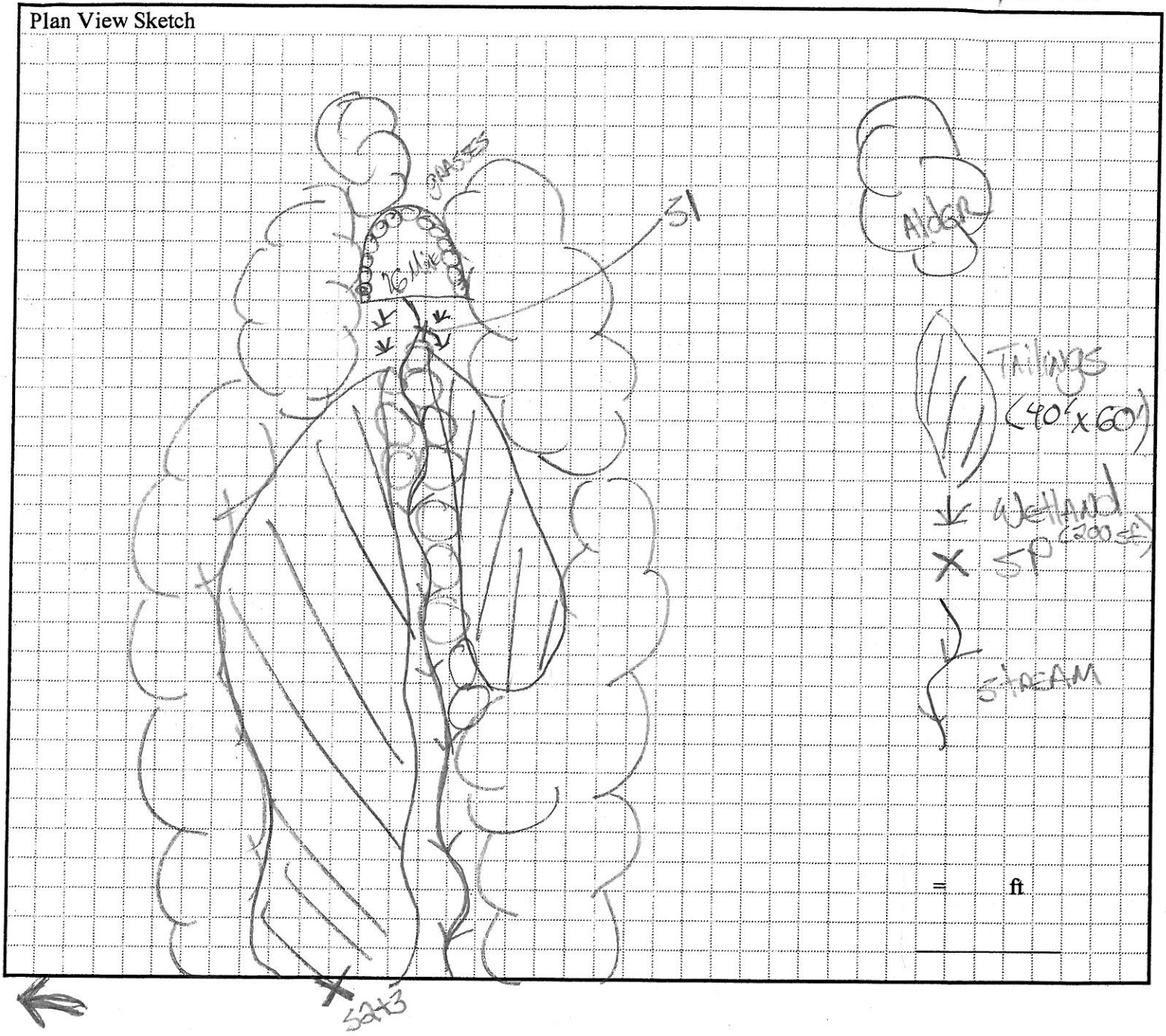
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils. Y-high
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters. Y
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID	36 MINE 51
Date	9/13/11
Weather	SUNNY

Plan View Sketch



INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

TEE Checklist

Site Name	76 MINE
Date of Site Visit	9-13-11
Site Location	76 CREEK
Site Visit Conducted by	ABERCROMBIE, McDONALD

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	N
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L-E
Other readily observable impacts (None, Discuss below)	O
Discussion: TAILINGS pile	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	
Dominant vegetation type (Evergreen, Deciduous, Mixed)	
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	15-20%
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	WEEDY
Prominent height of vegetation (<2', 2' to 5', >5')	2'-5'
Density of vegetation (Dense, Patchy, Sparse)	I
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	NONE
Terrestrial – Ruderal	
Percentage of site that is ruderal	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	12'

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **D**itches, **C**hannel Waterway)	S — 12'
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	2-3 cfs
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	G/S
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	76 Crk
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	M, R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	Herb/S
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	None
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	NA
Obvious or designated wetlands present (**Y**es / **N**o)	N
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

* **P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
Deer + bear use in vicinity & likely cougar
Tailings pile split by stream

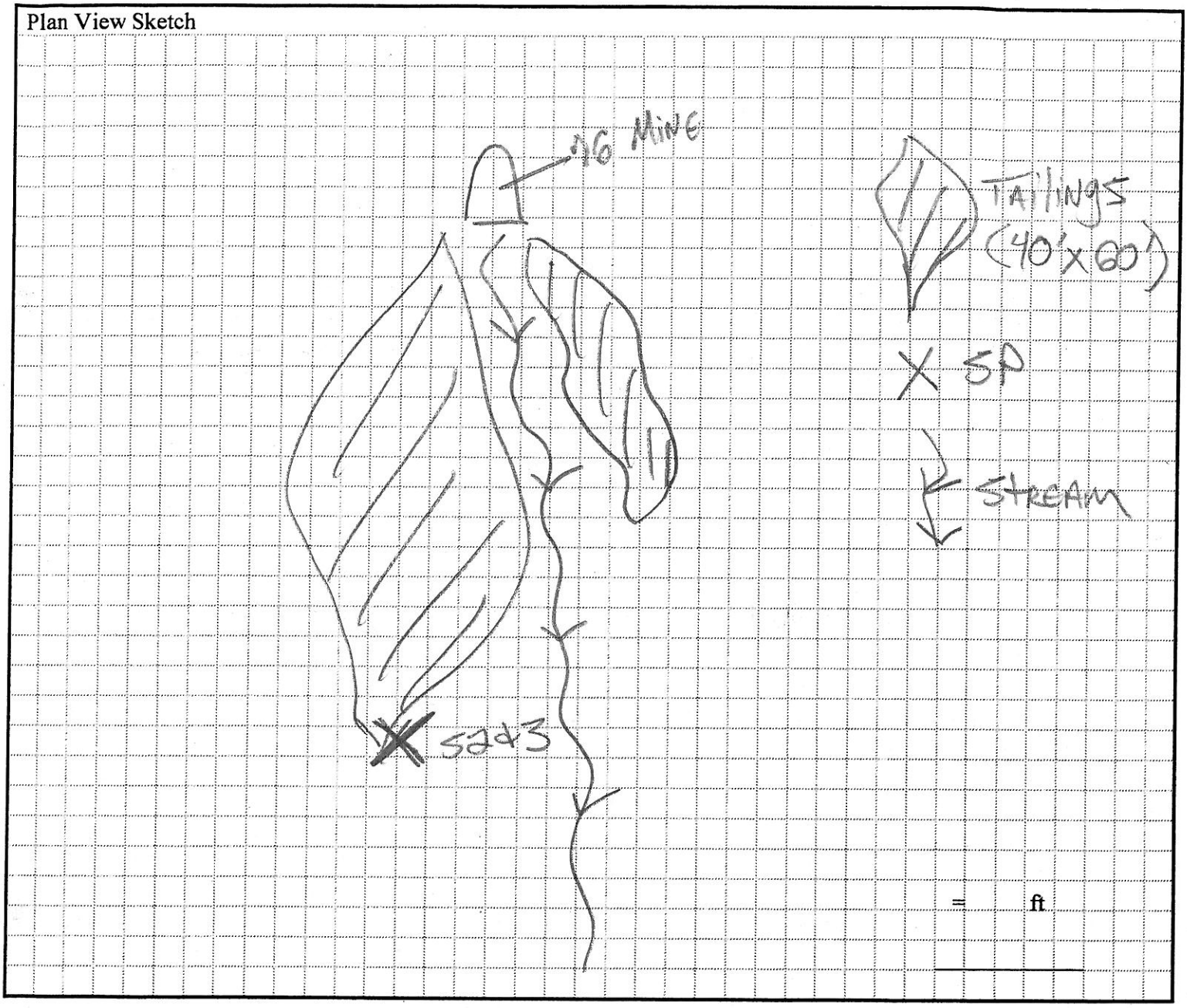
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID	26 Mine-5223
Date	9/13/11
Weather	SUNNY

Plan View Sketch



= ft

INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

EMMA MOORE NO. 1

TEE Checklist

Site Name	Emma Moore 2
Date of Site Visit	9-15-11
Site Location	76 Creek
Site Visit Conducted by	Abercrombie, McDonald

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L-E
Vegetation in the locality of the site (None, Limited, Extensive)	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive) spider	L
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive) Pika, bear	L
Other readily observable impacts (None, Discuss below)	N
Discussion: GPS: Emma 2 -51	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	20
Dominant vegetation type (Evergreen, Deciduous, Mixed)	E
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	<6"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	NONE
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	10
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	Shrub
Prominent height of vegetation (<2', 2' to 5', >5')	2-5 + >5
Density of vegetation (Dense, Patchy, Sparse)	P
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	NONE
Terrestrial – Ruderal	
Percentage of site that is ruderal	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent Streams, **D**ry wash, **D**itches, **C**hannel Waterway)	
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	
Obvious or designated wetlands present (**Y**es / **N**o)	
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	
Size (acres) and depth (feet) of suspected wetlands	

* **P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
Pika heard in talus downslope to south

When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

TEE Checklist

Site Name	EMMA MOORES2
Date of Site Visit	9-15-11
Site Location	76 CREEK
Site Visit Conducted by	ABERCROMBIE, McDONALD

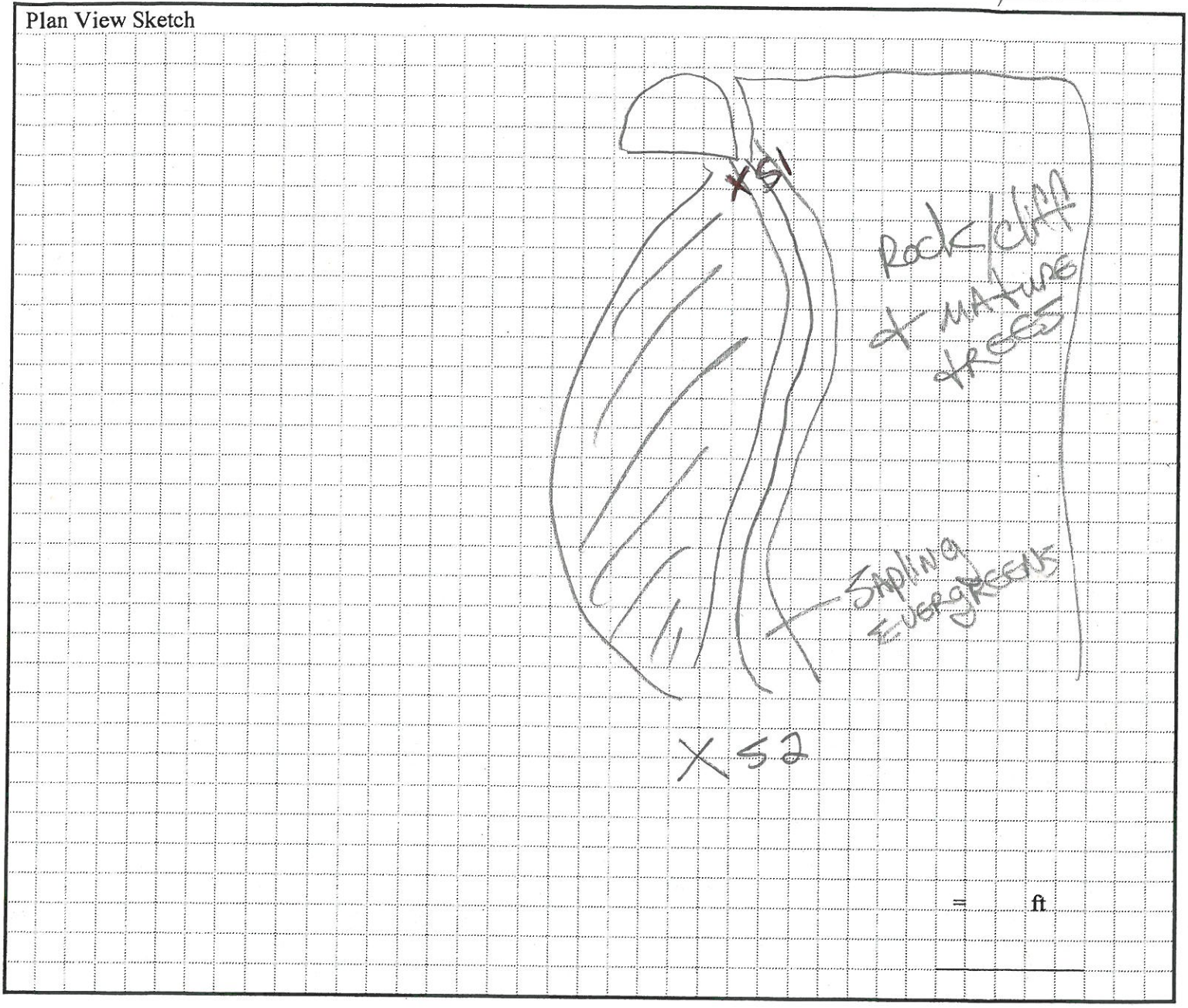
OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	NONE
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive) PIKA, BEAR	L
Other readily observable impacts (None, Discuss below)	N
Discussion: GPS: EMMA2-52+3 Botom of tailings pile	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	5
Dominant vegetation type (Evergreen, Deciduous, Mixed)	E
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	6'-12'
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	NONE
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	0
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	G
Prominent height of vegetation (<2', 2' to 5', >5')	<2'
Density of vegetation (Dense, Patchy, Sparse)	S
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	NONE
Terrestrial – Ruderal	
Percentage of site that is ruderal	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	

AML FEATURE INVENTORY/MONITORING

Feature ID	EMMA2-52
Date	9-15-11
Weather	Rainy

Plan View Sketch



INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

74 MINE

TEE Checklist

Site Name	74 Mine
Date of Site Visit	9-15-11
Site Location	southwest drainage in seventysix Gulch
Site Visit Conducted by	AK/MH

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	L
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	N
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L
Other readily observable impacts (None, Discuss below)	
Discussion: lots of shrub vegetation (goat's beard) lady fern, vine maple on upper ½ of WL pile, but very limited on lower ½. Very little veg. in surrounding area b/c mostly bedrock walls some moss & emergent plants in wall crevices	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	0%
Dominant vegetation type (Evergreen, Deciduous, Mixed)	—
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	—
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	hear birds
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	50%
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	Sh
Prominent height of vegetation (<2', 2' to 5', >5')	2-35'
Density of vegetation (Dense, Patchy, Sparse)	dense
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	—
Terrestrial – Ruderal	
Percentage of site that is ruderal	0%
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	—
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	—
Density of vegetation (Dense, Patchy, Sparse)	—
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	—
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **Ri**vers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **D**itches, **C**hannel Waterway)	DS
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	20 L/min
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	St.
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	St.
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	bedrock
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	shrub
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	hear birds
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	
Obvious or designated wetlands present (**Y**es / **N**o)	N
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

*** P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
very rocky, steep habitat
no critters in either sample location
can hear birds but no visible sign of mammals in the area
vegetation limited in vicinity - rocky faces had a little moss and a little ground cover w/i the rocky slope

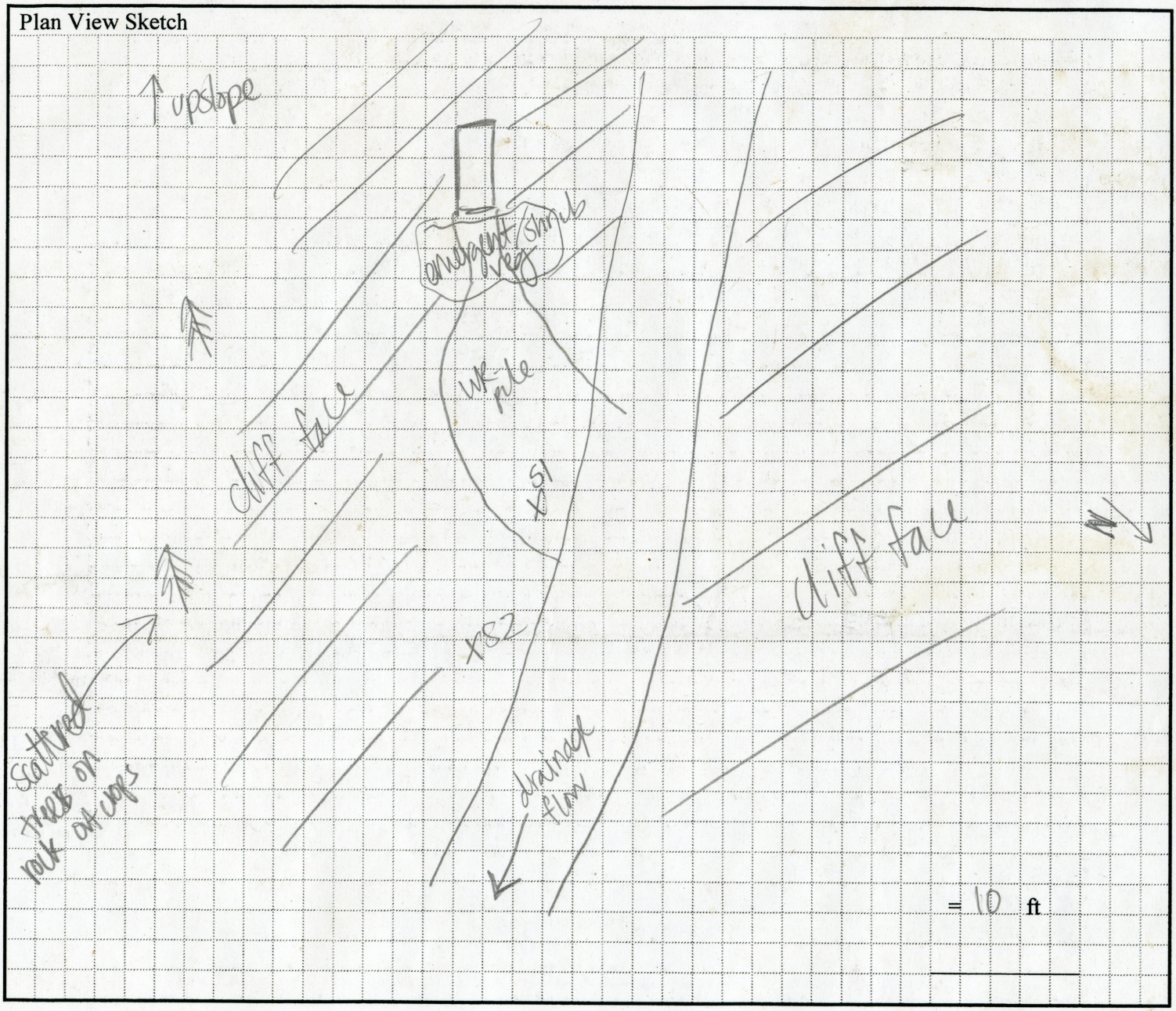
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID _____
Date _____
Weather _____

Plan View Sketch



INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

Updated July 2011

IBEX NO. 1

TEE Checklist

Site Name	IBEX
Date of Site Visit	9/28/11
Site Location	7Co DRAINAGE BASIN / BETWEEN IBEX CLAIM & IBEX NO. 1
Site Visit Conducted by	PRC/WDM

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive) CEDAR/BRACKET FERN	
Vegetation in the locality of the site (None, Limited, Extensive)	
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive) DEER FLY / DEER TRACKS / MAMMAL SCAT	
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	
Other readily observable impacts (None, Discuss below)	
Discussion: • ACC. TO TRIMBLE 428' DOWN GRADIENT (E) OF IBEX NO. 1 • 5x5 x 47' OPENING / TURNS NORTH FOR ANOTHER 46.0' • NO POOLING WATER / DIRECTLY INTO WEATHERED VEIN • 3-5" LONG STALAGMITES @ TUNNEL CURVE • <5'. BRUSH AT OPENING → MAIDEN FERN 75%. COVERAGE DOWNSLOPE → CEDAR / BRACKEN FERN • 45° SLOPE • WASTE ROCK PILE DOWNGRADIENT (WEST) 75'x150' L	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	20
Dominant vegetation type (Evergreen, Deciduous, Mixed)	D
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	12"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	MAMM SCAT/TRACK
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	~~5-15%~~ 40
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	SH
Prominent height of vegetation (<2', 2' to 5', >5')	2'
Density of vegetation (Dense, Patchy, Sparse)	P
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) – DEER	MAMM SCAT/TRACK
Terrestrial – Ruderal	
Percentage of site that is ruderal	NA
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	2004 EAST

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **D**itches, **C**hannel Waterway)	S
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	D=0.5' / 5gpm
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	St
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	St
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	S/Sc
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	—
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	√ / S 14'
Obvious or designated wetlands present (**Y**es / **N**o)	N
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

* **P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
MOIST TO WET, BRN SL. SILTY SANDY GRAVEL
TO SILTY SAND. / NUMEROUS ROCK LEDGES
AROUND MINE AND NEARBY CREEK
SPIDERS / BUGS WITHIN EXCAVATED SOILS

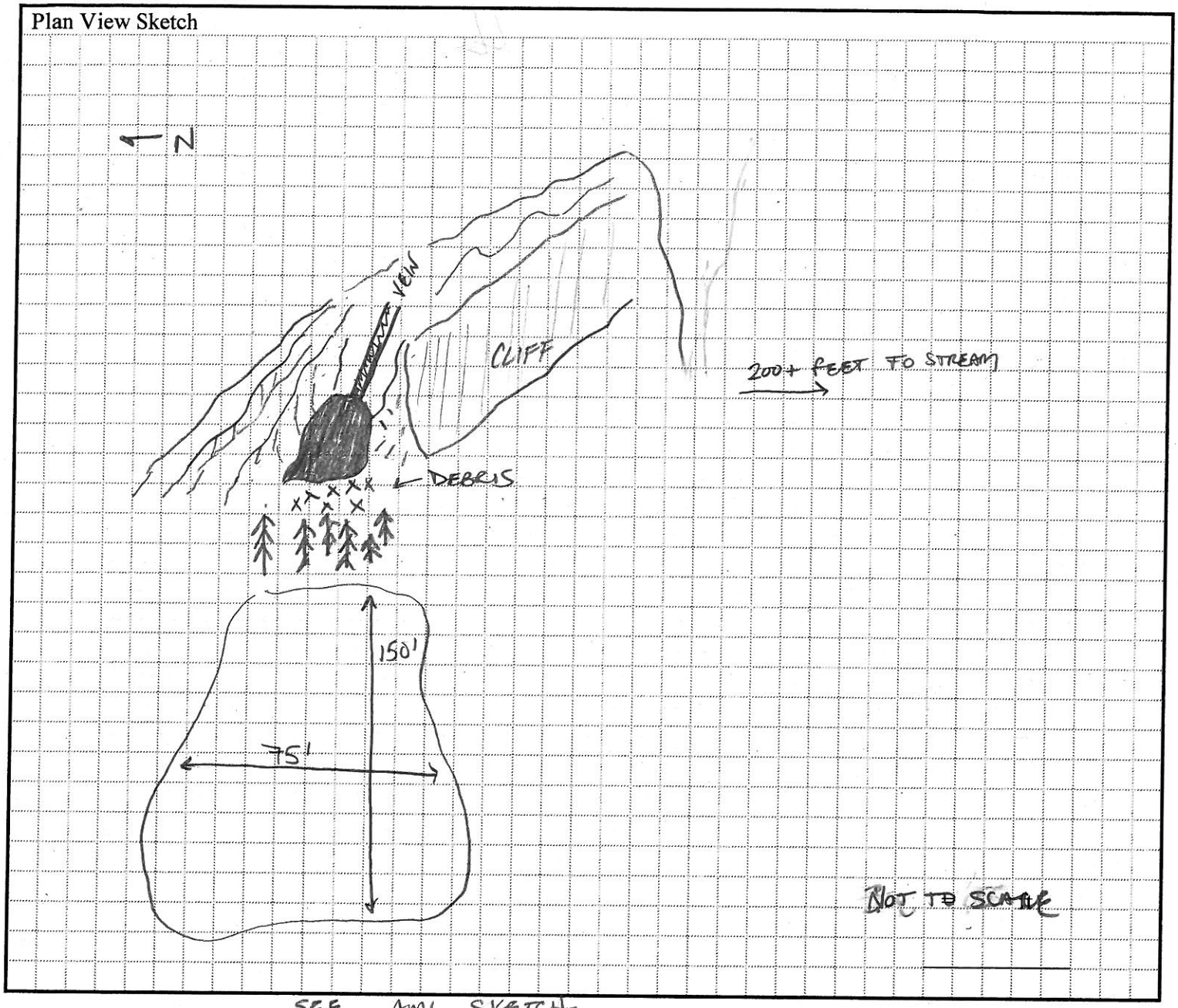
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID _____
Date _____
Weather _____

Plan View Sketch



SEE AML SKETCH

INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

Updated July 2011

O & B MINE

TEE Checklist

Site Name	O:B
Date of Site Visit	9/28/11
Site Location	
Site Visit Conducted by	ASK/MATH

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	L
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	N
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L
Other readily observable impacts (None, Discuss below)	D
Discussion: upper - groundcover immediately E & upslope of collapsed opening maidenhair fern false lily of the valley, grasses, moss, lady fern, corn lily > mountain hemlock dominant adjacent to pile cut wood steps ? present w/i ME forested area South of ME pile possible recent rock slide caused opening to be cored	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	30
Dominant vegetation type (Evergreen, Deciduous, Mixed)	E
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	>12"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) – bear markings, bird calls	birds mammals
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	5
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	Shr.
Prominent height of vegetation (<2', 2' to 5', >5')	2-5'
Density of vegetation (Dense, Patchy, Sparse)	P
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	
Terrestrial – Ruderal	
Percentage of site that is ruderal no non-native/weedy dist. sp. present	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	500 ft +

in vicinity

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent Streams, **D**ry wash, **D**itches, **C**hannel Waterway)	L
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	~5 acres
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	G
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	?
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	M/S
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	SC
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther) bird calls	B & fish
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	V (grasses), S
Obvious or designated wetlands present (**Y**es / **N**o)	Y
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	SA / D
Size (acres) and depth (feet) of suspected wetlands	0.5-1 acre

* **P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
Fish observed in the lake
Bird calls heard @ lake shore & up on WR piles
Bear markings in alder stand adjacent to upper WR pile
Damp to wet silty soils, but no critters observed in soil

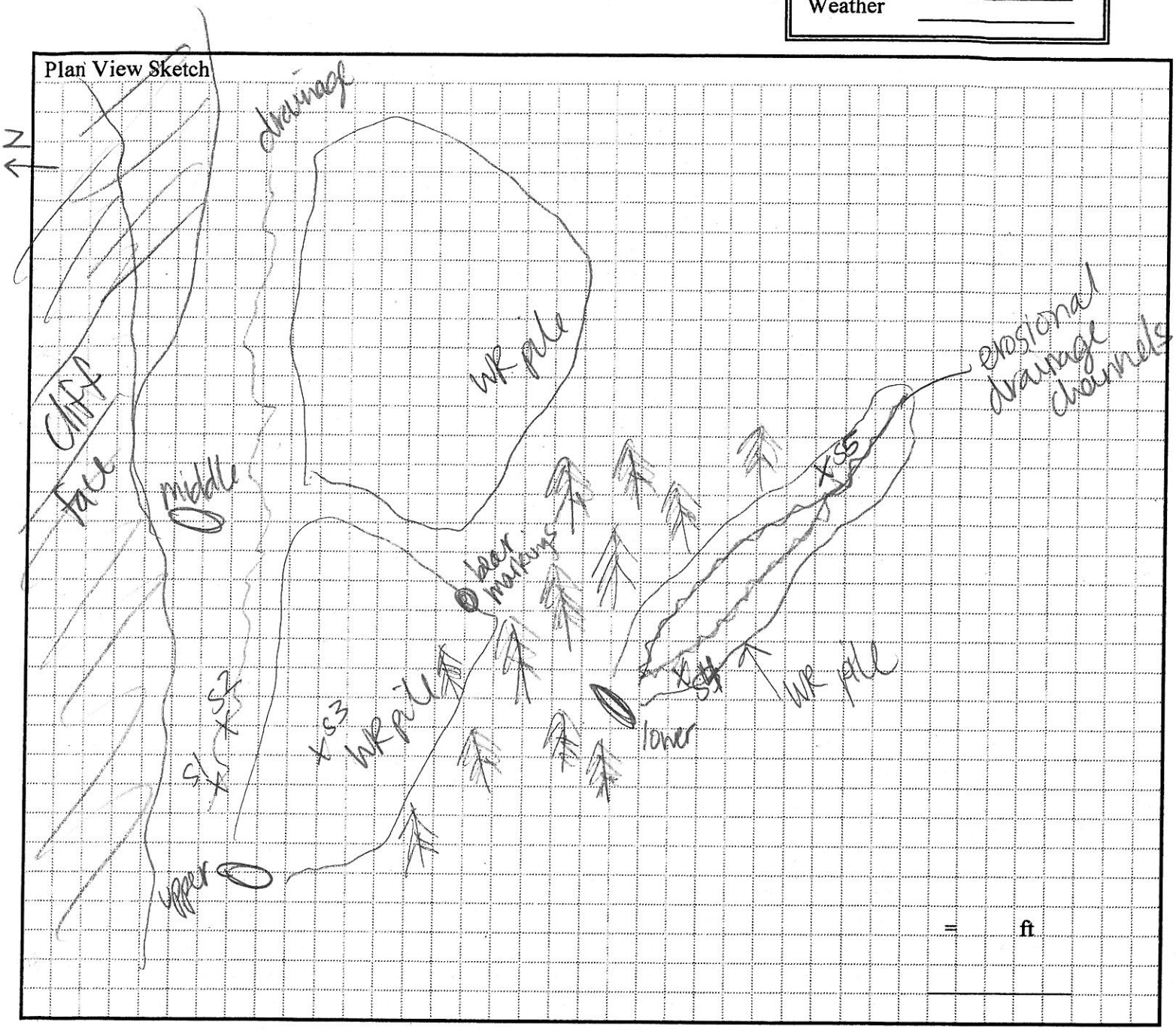
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID	
Date	
Weather	

Plan View Sketch



= ft

INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

CONGRESS MINE

TEE Checklist

Site Name	CONGRESS MINE CLAIM
Date of Site Visit	9/29/11
Site Location	CONGRESS MINE
Site Visit Conducted by	PRC / WDM

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive) FERN, ALDER, MAPLE, FIR, CEDAR	E
Vegetation in the locality of the site (None, Limited, Extensive) THISTLE/MAIDENHAIR FERN	L
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	N
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	N
Other readily observable impacts (None, Discuss below)	EROSION
Discussion: TALUS SLOPE BELOW MINE ENTRANCE IS SEVERELY ERODED. MATERIAL FROM MINE HAS MOVED DOWN GRADIENT 100'S OF FEET. • 5×5 × 60' OPENING • POOLING WATER INSIDE ENTRANCE BLOCKED BY TALUS OUTSIDE	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded 10%	<5
Dominant vegetation type (Evergreen, Deciduous, Mixed)	D
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	<6"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	NA
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	10
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	SHG
Prominent height of vegetation (<2', 2' to 5', >5')	<2'
Density of vegetation (Dense, Patchy, Sparse)	P
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	NA
Terrestrial – Ruderal	
Percentage of site that is ruderal NON-NAT. WEEDY	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash) – TO DRAINAGE TO THE EAST	200+

IN VICINITY OF MINE OPENING

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **D**itches, **Ch**annel Waterway)	S D
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	NA DRY
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	NA
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	S
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	E
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	—
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	B/S
Obvious or designated wetlands present (**Y**es / **N**o)	N
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

* **P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED

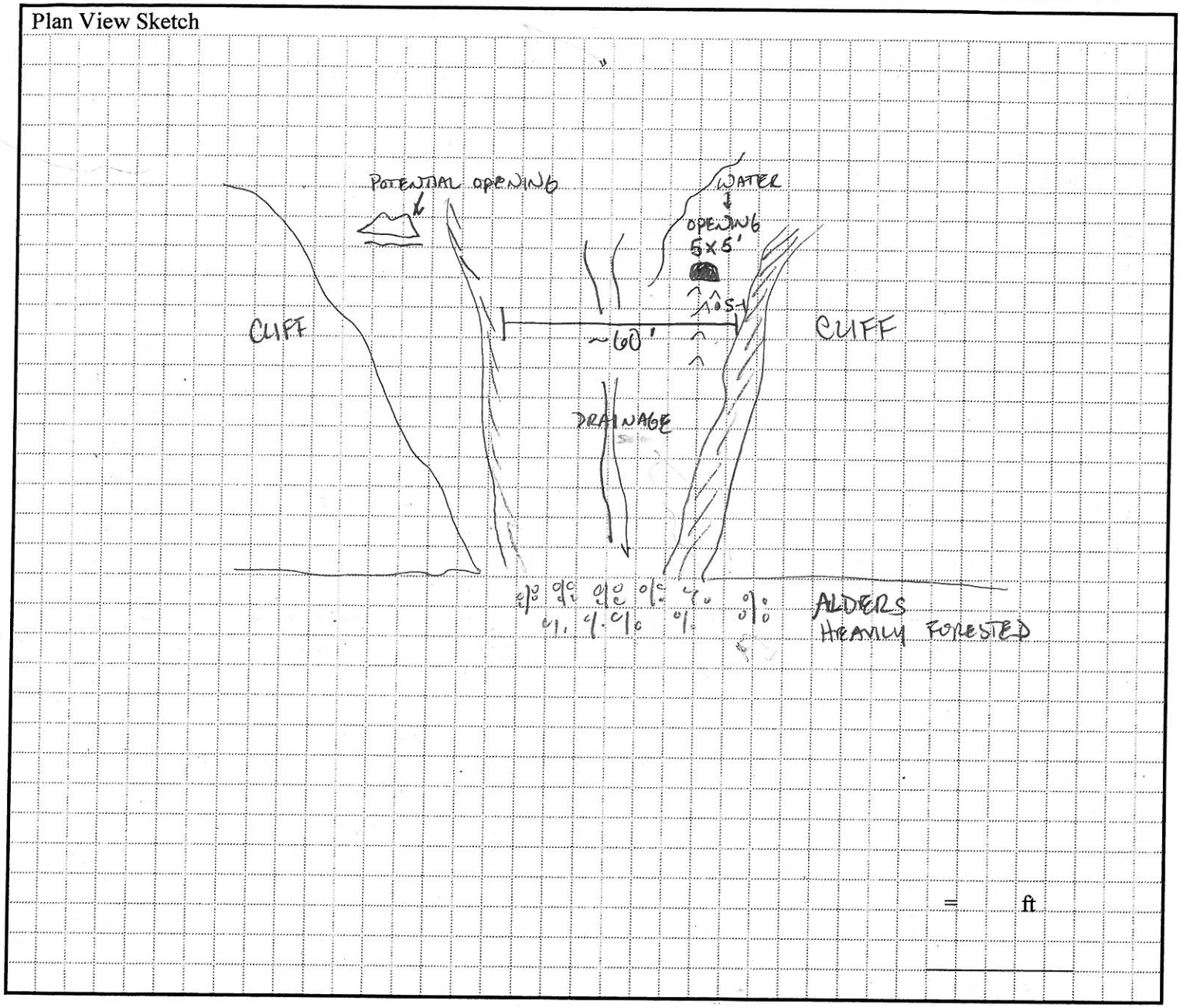
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID _____
Date _____
Weather _____

Plan View Sketch



= ft

INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water – DRIPPING FROM ABOVE MINE
- S-# Soil –
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe) S-1 LOCATED 10' BELOW ADIT

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

Updated July 2011

SAUK LODE – LOWER

TEE Checklist

Site Name	Sauk 1
Date of Site Visit	9/30/11
Site Location	
Site Visit Conducted by	ASK/MHH

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	Extensive
Vegetation in the locality of the site (None, Limited, Extensive)	Extensive
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive)	N
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L
Other readily observable impacts (None, Discuss below)	N
Discussion: Onsite vegetation consists of blueberries and moss on possible waste rock pile in middle of drainage. Sub-Alpine and hemlock fir trees surround to adit. Maiden hair ferns, huckleberry, and devils club, and fir trees on east side of drainage. Mostly moss a fir trees on west side. Bear Markings observed in general vicinity. No obvious impacts from mine workings.	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	80 %
Dominant vegetation type (Evergreen, Deciduous, Mixed)	E
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	6-12"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	M
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	65%
Dominant vegetation type (Scrub, Shrub, Grasses, Other)	Sh
Prominent height of vegetation (<2', 2' to 5', >5')	2-5'
Density of vegetation (Dense, Patchy, Sparse)	P
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	None
Terrestrial – Ruderal	
Percentage of site that is ruderal (No non-native vegetation or disturbed wildlife)	Ø
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	300' SW

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent Streams, **D**ry wash, **D**itches, **C**hannel Waterway)	S, I
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	S-300 I
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	S
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	R
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	Sc
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	M
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	V/S-G/2-10'
Obvious or designated wetlands present (**Y**es / **N**o) vegetation in stream, no wetlands	
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	NA
Size (acres) and depth (feet) of suspected wetlands	NA

* **P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
Blackberries
Maiden Hair Ferns
Moss
Devils Club
Huckleberries
Sub-Alpine Firs
Hemlocks
Vine Maples

When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID	_____
Date	_____
Weather	_____

Plan View Sketch

SEE AML FEATURE INVENTORY SKETCH

= ft

INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s):
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES
- OTHER

Updated July 2011

MACKINAW TUNNEL NO. 1 (Weden 1)

TEE Checklist

Site Name	Mackinaw / Wedell Creek #1
Date of Site Visit	7/9/11
Site Location	Wedell Crk watershed
Site Visit Conducted by	CAA

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive) → spider	L
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L
Other readily observable impacts (None, Discuss below)	N
Discussion:	
Open tunnel w/rock extending downslope / larger rock @ top w/smaller rocks downslope up to 30'+/-. Limited veg @ tunnel opening – Elymus, Dicentra, Polystichum, Athyrium, Tolmiea. Established wooded & shrub immed. adj. to waste rock pile & opening.	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	80
Dominant vegetation type (Evergreen, Deciduous, Mixed)	E
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	>12"
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) – Bear scat & tracks / deer tracks, bird calls	birds Mamm.
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub on waste rock pile	15
Dominant vegetation type (Scrub, Shrub, Grasses, Other) Emergent/Herb.	H
Prominent height of vegetation (<2', 2' to 5', >5')	2-5'
Density of vegetation (Dense, Patchy, Sparse)	P
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	Mamm.
Terrestrial – Ruderal	
Percentage of site that is ruderal no non-native / weedy dist. sp. observed	
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	
Density of vegetation (Dense, Patchy, Sparse)	
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	200' +

in vicin of site

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent **S**treams, **D**ry wash, **D**itches, **C**hannel Waterway)	S
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	—
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	S
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	S
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	—
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	—
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	—
Obvious or designated wetlands present (**Y**es / **N**o)	N
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

*** P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
Well established duff/ORGANIC LAYER.
Silty LOAM W/COARSE ROCK/GRAVEL
Moist to SATURATED SOILS.
No critters IN SOIL, except 2 spiders

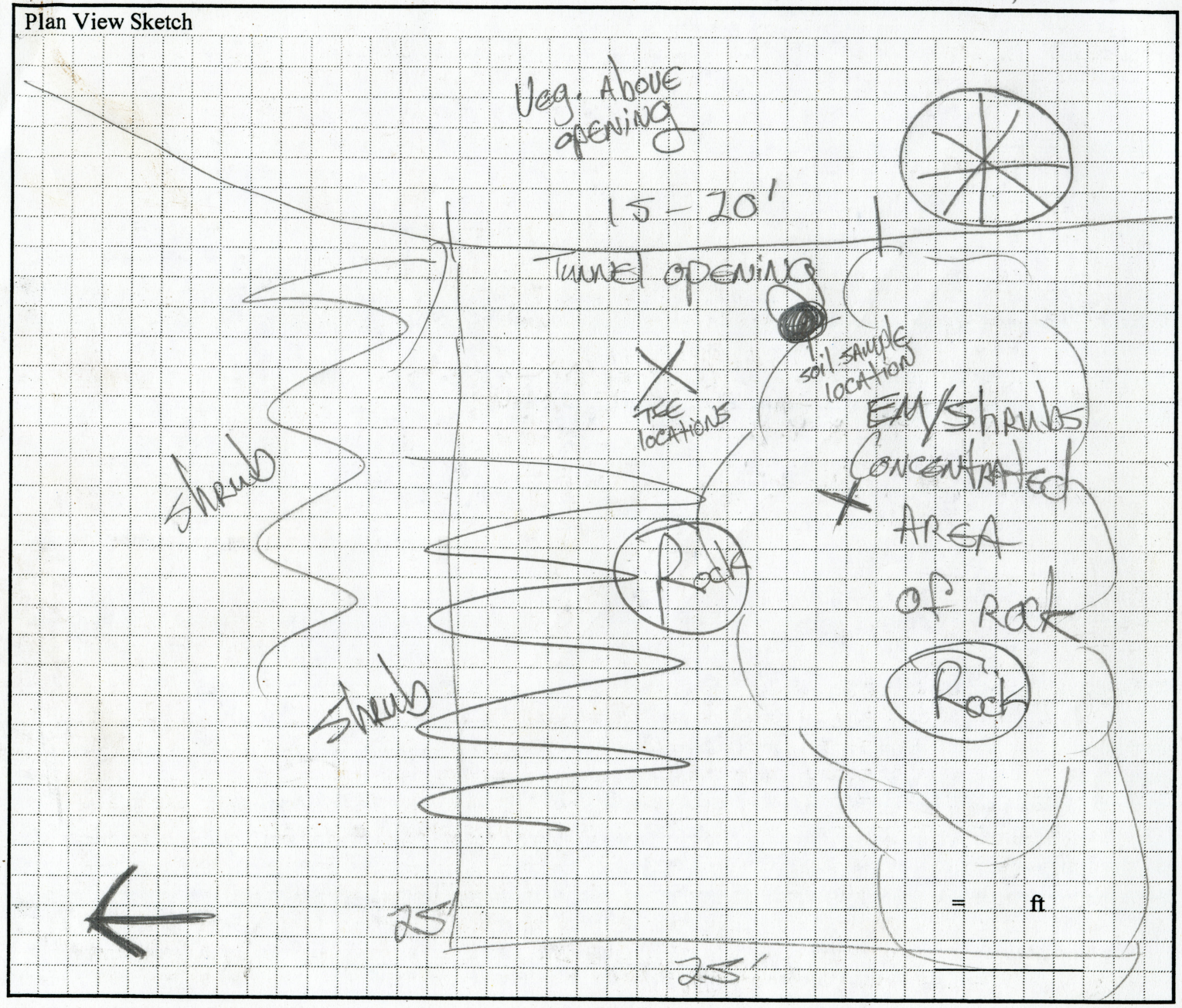
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils.
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters.
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth).
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface.
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil.

AML FEATURE INVENTORY/MONITORING

Feature ID	Weeden Cabin #1
Date	7/9/11
Weather	SUNNY

Plan View Sketch



INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s): Weeden 1, S-1

- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:

- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES — 25' wide x 70' long
- OTHER

MACKINAW TUNNEL NO. 2 (Weden 2)

TEE Checklist

Site Name	Mackinaw / Weden Creek 2
Date of Site Visit	2/12/11
Site Location	Weden Crk watershed
Site Visit Conducted by	CAA

OBSERVED IMPACTS ASSOCIATED WITH THE SAMPLE LOCATION	Finding
Onsite vegetation (None, Limited, Extensive)	L
Vegetation in the locality of the site (None, Limited, Extensive)	L/E
Onsite wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other (None, Limited, Extensive) – 1 spider	L
Wildlife such as macroinvertebrates, reptiles, amphibians, birds, mammals, other in the locality of the site (None, Limited, Extensive)	L
Other readily observable impacts (None, Discuss below)	D
Discussion: Salmonberry, galium, maidenhair fern, grasses, R.A.S., Athyrium in cracks of / in between rocks outside of opening. Pipe leading to opening.	

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Terrestrial – Wooded	
Percentage of site that is wooded	—
Dominant vegetation type (Evergreen, Deciduous, Mixed)	—
Prominent tree size at breast height, i.e., four feet (<6", 6" to 12", >12")	—
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) –	—
Terrestrial - Scrub/Shrub/Grasses	
Percentage of site that is scrub/shrub	
Dominant vegetation type (Scrub, Shrub, Grasses, Other) Everg / Herb	Sh/G
Prominent height of vegetation (<2', 2' to 5', >5') 6-15"	<2'
Density of vegetation (Dense, Patchy, Sparse)	S
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other) – Spider - 1	O
Terrestrial – Ruderal	
Percentage of site that is ruderal	—
Dominant vegetation type (Landscaped, Agriculture, Bare ground)	—
Prominent height of vegetation (0', >0' to <2', 2' to 5', >5')	—
Density of vegetation (Dense, Patchy, Sparse)	—
Evidence / observation of wildlife (Macroinvertebrates, Reptiles, Amphibians, Birds, Mammals, Other)	—
Aquatic	
Proximity of the site to surface water bodies (streams, lakes, ponds, ditches, dry wash)	40' to opening

SPECIFIC EVALUATION OF ECOLOGICAL RECEPTORS / HABITAT	Finding
Type of water bodies (**L**akes, **P**onds, **V**ernal pools, **I**mpoundments, **Lag**oon, **R**eservoir, **C**anal, **R**ivers, **S**treams, **I**ntermittent Streams, **D**ry wash, **D**itches, **C**hannel Waterway)	S + tor IS
Size (acres), average depth (feet), flow rate (cfs), trophic status of water bodies	15-20 cfs
Source water (**R**iver, **S**tream, **G**roundwater, **I**ndustrial discharge, **S**urface water runoff)	
Water discharge point (**N**one, **R**iver, **S**tream, **G**roundwater, **W**etlands impoundment)	Weden Crk
Nature of bottom (**M**uddy, **R**ocky, **S**and, **C**oncrete, **O**ther)	R
Vegetation present (**S**ubmerged, **E**mergent, **F**loating, **S**crub/shrub, **W**ooded)	—
Evidence / observation of wildlife (**M**acroinvertebrates, **R**eptiles, **A**mphibians, **B**irds, **M**ammals, **O**ther)	—
Bank environment (cover: **V**egetated, **B**are / slope: **S**teep, **G**radual / height (in feet))	B/S
Obvious or designated wetlands present (**Y**es / **N**o)	—
Wetlands suspected as site is/has (**A**djacent to water body, in **F**loodplain, **S**tanding water, **D**ark wet soils, **M**ud cracks, **D**ebris line, **W**ater marks)	—
Size (acres) and depth (feet) of suspected wetlands	—

*** P**: Photographic documentation of these features is highly recommended.

SPECIES / HABITATS OBSERVED
Spider (1) observed.
Rocky substrate w/ 1/2" or less of organic matter.
→ 8-10" max to < 1"
Forested surroundings

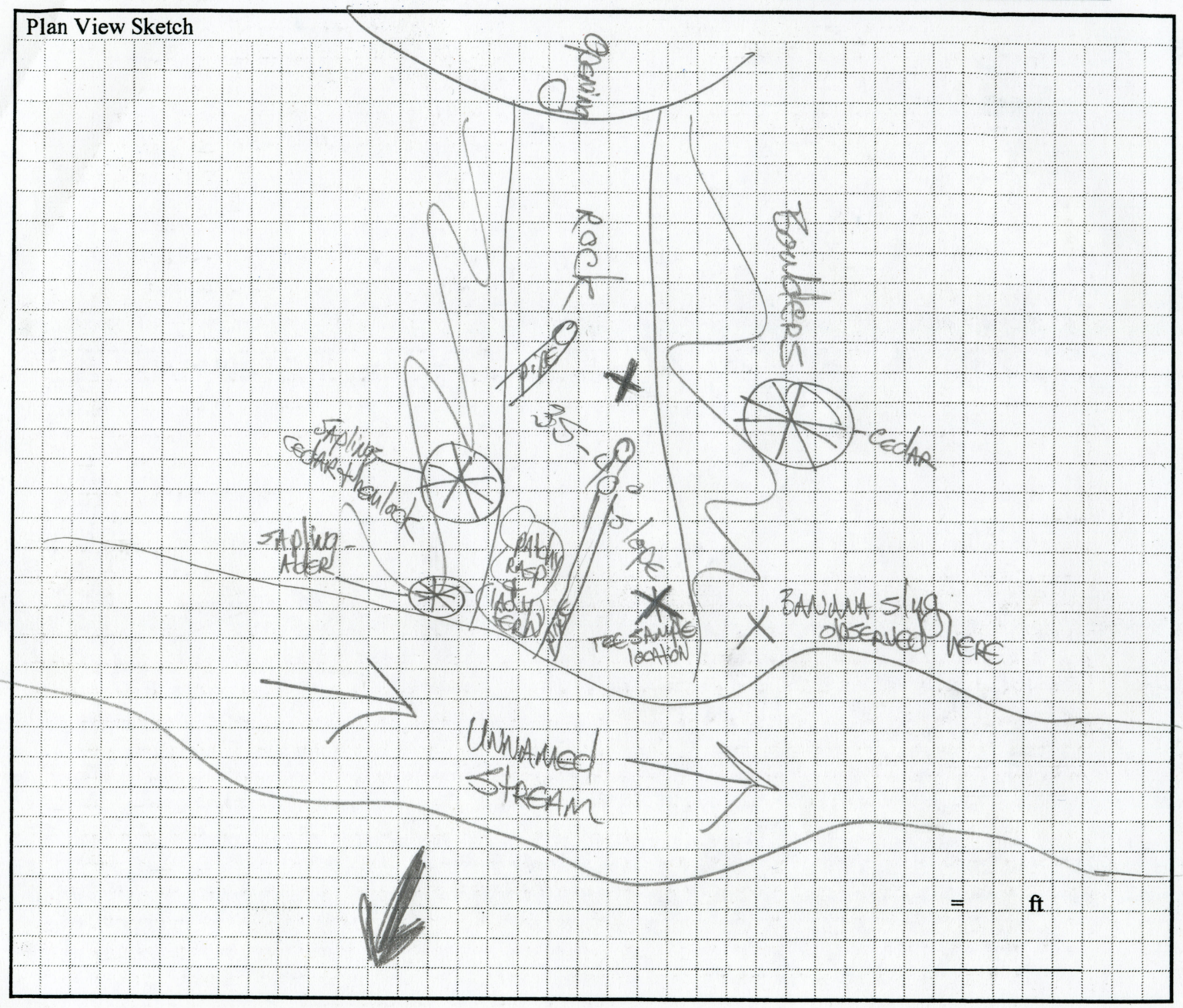
When answering the above questions, consider the following:

- Ability of hazardous substances to migrate to surface waters, groundwater, or surficial soils. Y
- Terrestrial organisms may be dermally exposed to water-borne contaminants as a result of wading or swimming in contaminated waters. Aquatic receptors may be exposed through osmotic exchange, respiration or ventilation of surface waters. Y – limited depend. on season
- Contaminants may be taken-up by terrestrial plants whose roots are in contact with surface waters, groundwater, or soils.
- Terrestrial receptors may ingest water-borne contaminants if contaminated surface waters are used as a drinking water source.
- Contaminants may be taken-up by terrestrial and rooted aquatic plants whose roots are in contact with groundwater present within the root zone (~1m depth). Y
- Terrestrial wildlife receptors generally will not contact groundwater unless it is discharged to the surface. Y
- Exposure of terrestrial plants to contaminants present in particulates deposited on leaf and stem surfaces by rain striking contaminated soils (i.e., rain splash).
- Incidental ingestion of contaminated soil could occur while animals grub for food resident in the soil, feed on plant matter covered with contaminated soil or while grooming themselves clean of soil. other food readily available.

AML FEATURE INVENTORY/MONITORING

Feature ID	Weden Creek #2
Date	7/12/11
Weather	Cloudy/L. RAIN

Plan View Sketch



INCLUDE THE FOLLOWING IN THE FIELD SKETCH FOR:

North Arrow
Scale Bar
Photo Location(s) and View Direction(s)
Sample Location(s) and ID(s): Weden 1, S-2
- W-# Water
- S-# Soil
- T-# Tailings
- R-# Rock (Waste)
- O-# Ore
- S-# Other (Describe)

FOOTPRINT(S) OF:
- MILLS
- BUILDINGS
- STRUCTURES
- MINING-RELATED PILES — 4-7' wide × 40' long (streambank)
- OTHER — pipes - 2' dia.

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ATTACHMENT B
ANALYTICAL SOILS DATA USED IN THE TERRESTRIAL ECOLOGICAL EVALUATION

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Attachment B - Analytical Soils Data Used in the Terrestrial Ecological Evaluation

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7429-90-5	Aluminum	15700		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7440-36-0	Antimony	479		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7440-38-2	Arsenic	35300		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7440-39-3	Barium	23.9	T	mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7440-43-9	Cadmium	176		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7440-47-3	Chromium	18.8		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7440-50-8	Copper	265		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7439-89-6	Iron	53800		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7439-92-1	Lead	4050		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7439-96-5	Manganese	209		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7439-97-6	Mercury	2.3		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7440-02-0	Nickel	10	T	mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No		pH	4.6		pH
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No		pH	4.7	J	pH
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-07	No	7440-66-6	Zinc	118		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7429-90-5	Aluminum	15300		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7440-36-0	Antimony	339		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7440-38-2	Arsenic	34500		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7440-39-3	Barium	52.5		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7440-43-9	Cadmium	206		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7440-47-3	Chromium	22.4		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7440-50-8	Copper	313		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7439-89-6	Iron	56000		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7439-92-1	Lead	3770		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7439-96-5	Manganese	377		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7439-97-6	Mercury	1.5		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7440-02-0	Nickel	16.8	T	mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No		pH	5.2		pH
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No		pH	5.3	J	pH
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-08	No	7440-66-6	Zinc	594		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7429-90-5	Aluminum	28200		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7440-36-0	Antimony	10.9		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7440-38-2	Arsenic	468		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7440-39-3	Barium	125		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7440-43-9	Cadmium	2.7	T	mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7440-47-3	Chromium	41.6		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7440-50-8	Copper	70.9		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7439-89-6	Iron	33500		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7439-92-1	Lead	110		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7439-96-5	Manganese	872		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7439-97-6	Mercury	0.14		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7440-02-0	Nickel	45.4		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No		pH	5.5		pH
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No		pH	5.6	J	pH
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-09	No	7440-66-6	Zinc	252		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7429-90-5	Aluminum	10400		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7440-36-0	Antimony	1530		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7440-38-2	Arsenic	23900		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7440-39-3	Barium	60.4		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7440-43-9	Cadmium	141		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7440-47-3	Chromium	24.2		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7440-50-8	Copper	148		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7439-89-6	Iron	67000		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7439-92-1	Lead	2830		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7439-96-5	Manganese	241		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7439-97-6	Mercury	0.76		mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7440-02-0	Nickel	14.3	T	mg/kg
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No		pH	4.4		pH
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No		pH	4.6	J	pH
Area 4	MC-RA-CT	9/29/2010	0	0.5	FT	MCRA2-WR-CT-10	No	7440-66-6	Zinc	346		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7429-90-5	Aluminum	22700		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7440-36-0	Antimony	2.8		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7440-38-2	Arsenic	51.7		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7440-39-3	Barium	1220		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7440-43-9	Cadmium	0.4	T	mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7440-47-3	Chromium	5.1		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7440-50-8	Copper	63.9		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7439-89-6	Iron	8270		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7439-92-1	Lead	16.9		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7439-96-5	Manganese	174		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7439-97-6	Mercury	0.05	T	mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7440-02-0	Nickel	10.2		mg/kg
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No		pH	6.2	J	pH
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No		pH	6.5		pH
Area 1	MC-HW-03	9/29/2010	0	0.5	FT	MCRA2-WR-HW-10	No	7440-66-6	Zinc	46.9		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7429-90-5	Aluminum	32600		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7440-36-0	Antimony	6.2		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7440-38-2	Arsenic	222		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7440-39-3	Barium	48.7		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7440-43-9	Cadmium	0.2	T	mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7440-47-3	Chromium	43.4		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7440-50-8	Copper	159		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7439-89-6	Iron	37900		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7439-92-1	Lead	53.2		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7439-96-5	Manganese	778		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7439-97-6	Mercury	0.34		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7440-02-0	Nickel	33.1		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No		pH	5.7	J	pH
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No		pH	5.9		pH
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-01	No	7440-66-6	Zinc	155		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7429-90-5	Aluminum	25700		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7440-36-0	Antimony	7.2		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7440-38-2	Arsenic	231		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7440-39-3	Barium	31		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7440-43-9	Cadmium	0.57	T	mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7440-47-3	Chromium	29.4		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7440-50-8	Copper	85.8		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7439-89-6	Iron	28300		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7439-92-1	Lead	49.2		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7439-96-5	Manganese	599		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7439-97-6	Mercury	0.14		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7440-02-0	Nickel	15.6	T	mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No		pH	5.8	J	pH
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No		pH	6.1		pH
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-02	No	7440-66-6	Zinc	118		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7429-90-5	Aluminum	32100		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7440-36-0	Antimony	9.3		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7440-38-2	Arsenic	347		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7440-39-3	Barium	43.9		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7440-43-9	Cadmium	1	T	mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7440-47-3	Chromium	36.6		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7440-50-8	Copper	109		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7439-89-6	Iron	36900		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7439-92-1	Lead	80.6		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7439-96-5	Manganese	1060		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7439-97-6	Mercury	0.29		mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7440-02-0	Nickel	24.8	T	mg/kg
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No		pH	5.6	J	pH
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No		pH	6.2		pH
Area 5	MC-RA-WD	9/29/2010	0	0.5	FT	MCRA2-WR-WD-03	No	7440-66-6	Zinc	192		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7429-90-5	Aluminum	24400		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7440-36-0	Antimony	1.5		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7440-38-2	Arsenic	63.2		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7440-39-3	Barium	60.3		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7440-43-9	Cadmium	6.1	U	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7440-47-3	Chromium	23.3		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7440-50-8	Copper	42.7		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7439-89-6	Iron	21100		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7439-92-1	Lead	16.4		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7439-96-5	Manganese	407		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7439-97-6	Mercury	0.034	T	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7440-02-0	Nickel	17.5	T	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No		pH	5.9	J	pH
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No		pH	6		pH
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-01	No	7440-66-6	Zinc	115		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7429-90-5	Aluminum	20100		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7440-36-0	Antimony	1.6	U	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7440-38-2	Arsenic	38.3		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7440-39-3	Barium	53.2		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7440-43-9	Cadmium	6.3	U	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7440-47-3	Chromium	16.1		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7440-50-8	Copper	45.5		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7439-89-6	Iron	17800		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7439-92-1	Lead	11.6		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7439-96-5	Manganese	327		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7439-97-6	Mercury	0.036	T	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7440-02-0	Nickel	14.1	T	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No		pH	5.9	J	pH
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No		pH	6		pH
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-02	No	7440-66-6	Zinc	72.7		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7429-90-5	Aluminum	28900		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7440-36-0	Antimony	1.6		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7440-38-2	Arsenic	56.4		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7440-39-3	Barium	60.5		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7440-43-9	Cadmium	6.3	U	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7440-47-3	Chromium	23.2		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7440-50-8	Copper	35.5		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7439-89-6	Iron	22000		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7439-92-1	Lead	22.9		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7439-96-5	Manganese	420		mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7439-97-6	Mercury	0.07	T	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7440-02-0	Nickel	15.7	T	mg/kg
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No		pH	6.1	J	pH
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No		pH	6.2		pH
Area 2	MC-RA-LN	9/28/2010	0	0.5	FT	MCRA2-WR-LN-03	No	7440-66-6	Zinc	89		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7429-90-5	Aluminum	5810		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7440-36-0	Antimony	2690		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7440-38-2	Arsenic	82900		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7440-39-3	Barium	108		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7440-43-9	Cadmium	558		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7440-47-3	Chromium	19.4	J	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7440-50-8	Copper	427		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7439-89-6	Iron	144000		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7439-92-1	Lead	20400		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7439-96-5	Manganese	245		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7439-97-6	Mercury	4.9	J	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7440-02-0	Nickel	2.4	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No		pH	3.8		pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No		pH	4.2	J	pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-01	No	7440-66-6	Zinc	8000		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7429-90-5	Aluminum	19400		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7440-36-0	Antimony	4.9		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7440-38-2	Arsenic	140		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7440-39-3	Barium	39.2		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7440-43-9	Cadmium	0.57	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7440-47-3	Chromium	28.4		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7440-50-8	Copper	33.9		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7439-89-6	Iron	22500		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7439-92-1	Lead	68.4		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7439-96-5	Manganese	439		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7439-97-6	Mercury	0.071	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7440-02-0	Nickel	38.2		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No		pH	5.4		pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No		pH	5.6	J	pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-02	No	7440-66-6	Zinc	141		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7429-90-5	Aluminum	26900		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7440-36-0	Antimony	70		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7440-38-2	Arsenic	1150		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7440-39-3	Barium	16.3	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7440-43-9	Cadmium	7.9		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7440-47-3	Chromium	13.1		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7440-50-8	Copper	77.7		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7439-89-6	Iron	40700		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7439-92-1	Lead	1700		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7439-96-5	Manganese	1710		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7439-97-6	Mercury	0.2		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7440-02-0	Nickel	6.3	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No		pH	5.4		pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No		pH	5.4	J	pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-03	No	7440-66-6	Zinc	805		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7429-90-5	Aluminum	21200		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7440-36-0	Antimony	20.4		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7440-38-2	Arsenic	898		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7440-39-3	Barium	25.1	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7440-43-9	Cadmium	5.4	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7440-47-3	Chromium	24.2		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7440-50-8	Copper	123		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7439-89-6	Iron	24400		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7439-92-1	Lead	204		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7439-96-5	Manganese	811		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7439-97-6	Mercury	0.22		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7440-02-0	Nickel	17.6	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No		pH	5.2		pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No		pH	5.3	J	pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-04	No	7440-66-6	Zinc	156		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7429-90-5	Aluminum	2980		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7440-36-0	Antimony	1010		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7440-38-2	Arsenic	102000		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7440-39-3	Barium	24.4		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7440-43-9	Cadmium	742		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7440-47-3	Chromium	8.2		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7440-50-8	Copper	557		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7439-89-6	Iron	134000		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7439-92-1	Lead	6400		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7439-96-5	Manganese	113		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7439-97-6	Mercury	3.6		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7440-02-0	Nickel	107	U	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No		pH	3.4		pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No		pH	3.4	J	pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-05	No	7440-66-6	Zinc	317		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7429-90-5	Aluminum	5460		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7440-36-0	Antimony	811		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7440-38-2	Arsenic	19200		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7440-39-3	Barium	96.1		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7440-43-9	Cadmium	118		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7440-47-3	Chromium	18		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7440-50-8	Copper	445		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7439-89-6	Iron	110000		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7439-92-1	Lead	5070		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7439-96-5	Manganese	333		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7439-97-6	Mercury	0.97		mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7440-02-0	Nickel	2.1	T	mg/kg
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No		pH	4.8		pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No		pH	5	J	pH
Area 4	MC-RA-CT	9/27/2010	0	0.5	FT	MCRA2-WR-CT-06	No	7440-66-6	Zinc	624		mg/kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7440-36-0	Antimony	10	U	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7440-38-2	Arsenic	1720	J	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7440-43-9	Cadmium	1.34		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7440-47-3	Chromium	27		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7440-50-8	Copper	69		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7439-92-1	Lead	26	J	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7439-97-6	Mercury	0.31	J	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No		pH	5.8		pH
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7782-49-2	Selenium	0.18	T	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7440-22-4	Silver	0.64		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-01	No	7440-66-6	Zinc	245		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7440-36-0	Antimony	3	T	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7440-38-2	Arsenic	2120	J	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7440-43-9	Cadmium	4.23		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7440-47-3	Chromium	4	T	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7440-50-8	Copper	44		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7439-92-1	Lead	129	J	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7439-97-6	Mercury	0.99	J	mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No		pH	3.6		pH
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7782-49-2	Selenium	0.75		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7440-22-4	Silver	3.69		mg/Kg
Area 2	MC-EE-WR-SH-01	8/23/2008	0	0.5	FT	MCEE-WR-SH-02	No	7440-66-6	Zinc	971		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7440-36-0	Antimony	12.5		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7440-38-2	Arsenic	28100		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7440-43-9	Cadmium	1.25		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7440-47-3	Chromium	5	T	mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7440-50-8	Copper	2460		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7439-92-1	Lead	105		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7439-97-6	Mercury	0.29	J	mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No		pH	4		pH
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7782-49-2	Selenium	1.2		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7440-22-4	Silver	14.9		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-01	No	7440-66-6	Zinc	289		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7440-36-0	Antimony	200	U	mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7440-38-2	Arsenic	38400		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7440-43-9	Cadmium	1.7		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7440-47-3	Chromium	7		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7440-50-8	Copper	1140		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7439-92-1	Lead	117		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7439-97-6	Mercury	0.51	J	mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No		pH	4		pH
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7782-49-2	Selenium	1.13		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7440-22-4	Silver	8.74		mg/Kg
Area 2	MC-EE-WR-SY-01	8/23/2008	0	0.5	FT	MCEE-WR-SY-02	No	7440-66-6	Zinc	337		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7440-36-0	Antimony	970		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7440-38-2	Arsenic	33600		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7440-43-9	Cadmium	50	U	mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7440-47-3	Chromium	30	U	mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7440-50-8	Copper	383		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7439-92-1	Lead	10000		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7439-97-6	Mercury	1.8		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No		pH	4.2		pH
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7782-49-2	Selenium	50	U	mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7440-22-4	Silver	30	U	mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-01	No	7440-66-6	Zinc	450		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7440-36-0	Antimony	190		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7440-38-2	Arsenic	14300		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7440-43-9	Cadmium	55		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7440-47-3	Chromium	30	U	mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7440-50-8	Copper	801		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7439-92-1	Lead	2790		mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7439-97-6	Mercury	0.36		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No		pH	5.4		pH
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7782-49-2	Selenium	30	U	mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7440-22-4	Silver	10	U	mg/Kg
Area 3	MC-EE-WR-GC-01	8/22/2008	0	0.5	FT	MCEE-WR-GC-02	No	7440-66-6	Zinc	3550		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7440-36-0	Antimony	900	T	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7440-38-2	Arsenic	11700		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7440-43-9	Cadmium	2.97		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7440-47-3	Chromium	4	T	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7440-50-8	Copper	256		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7439-92-1	Lead	2150	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7439-97-6	Mercury	0.64	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No		pH	3.9		pH
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7782-49-2	Selenium	1.35		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7440-22-4	Silver	292		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-01	No	7440-66-6	Zinc	301		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7440-36-0	Antimony	51		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7440-38-2	Arsenic	4660	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7440-43-9	Cadmium	2.25		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7440-47-3	Chromium	30	U	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7440-50-8	Copper	129		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7439-92-1	Lead	286	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7439-97-6	Mercury	0.85	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No		pH	4.1		pH
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7782-49-2	Selenium	0.19	T	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7440-22-4	Silver	7.66		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-02	No	7440-66-6	Zinc	566		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7440-36-0	Antimony	8800		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7440-38-2	Arsenic	5290	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7440-43-9	Cadmium	1.62		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7440-47-3	Chromium	30	U	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7440-50-8	Copper	407		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7439-92-1	Lead	89200	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7439-97-6	Mercury	3.06	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No		pH	1.7		pH
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7782-49-2	Selenium	17.4		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7440-22-4	Silver	307		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-03	No	7440-66-6	Zinc	159		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7440-36-0	Antimony	310		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7440-38-2	Arsenic	9690		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7440-43-9	Cadmium	5.68		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7440-47-3	Chromium	7		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7440-50-8	Copper	626		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7439-92-1	Lead	887		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7439-97-6	Mercury	0.69	J	mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No		pH	4.2		pH
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7782-49-2	Selenium	1.4		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7440-22-4	Silver	23.4		mg/Kg
Area 3	MC-EE-MM-01	8/22/2008	0	0.5	FT	MCEE-WR-MM-04	No	7440-66-6	Zinc	1300	J	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7440-36-0	Antimony	107		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7440-38-2	Arsenic	7170		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7440-43-9	Cadmium	30	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7440-47-3	Chromium	19	T	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7440-50-8	Copper	844		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7439-92-1	Lead	1030		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7439-97-6	Mercury	2.41		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No		pH	3.7		pH
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7782-49-2	Selenium	10	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7440-22-4	Silver	17		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-01	No	7440-66-6	Zinc	1180		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7440-36-0	Antimony	200	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7440-38-2	Arsenic	22100		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7440-43-9	Cadmium	50	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7440-47-3	Chromium	30	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7440-50-8	Copper	268		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7439-92-1	Lead	3460		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7439-97-6	Mercury	0.8		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No		pH	4.1		pH
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7782-49-2	Selenium	50	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7440-22-4	Silver	30	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-02	No	7440-66-6	Zinc	1770		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7440-36-0	Antimony	2	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7440-38-2	Arsenic	42.6		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7440-43-9	Cadmium	0.6		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7440-47-3	Chromium	3	T	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7440-50-8	Copper	83		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7439-92-1	Lead	14.8		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7439-97-6	Mercury	1.69		mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No		pH	5.8		pH
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7782-49-2	Selenium	0.5	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7440-22-4	Silver	0.3	U	mg/Kg
Area 3	MC-EE-ND-01	8/22/2008	0	0.5	FT	MCEE-WR-ND-03	No	7440-66-6	Zinc	117	J	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7440-36-0	Antimony	100	U	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7440-38-2	Arsenic	11700		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7440-43-9	Cadmium	30	U	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7440-47-3	Chromium	30	U	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7440-50-8	Copper	227		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7439-92-1	Lead	1590		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7439-97-6	Mercury	0.6		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No		pH	3.4		pH
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7782-49-2	Selenium	30	U	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7440-22-4	Silver	10	U	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-01	No	7440-66-6	Zinc	250		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7440-36-0	Antimony	52		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7440-38-2	Arsenic	7870		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7440-43-9	Cadmium	5	T	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7440-47-3	Chromium	6	U	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7440-50-8	Copper	397		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7439-92-1	Lead	1560		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7439-97-6	Mercury	0.62		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No		pH	4.1		pH
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7782-49-2	Selenium	10	U	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7440-22-4	Silver	10		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-02	No	7440-66-6	Zinc	712	J	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7440-36-0	Antimony	103		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7440-38-2	Arsenic	5170		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7440-43-9	Cadmium	5	T	mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7440-47-3	Chromium	5		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7440-50-8	Copper	630		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7439-92-1	Lead	1190		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7439-97-6	Mercury	0.7		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No		pH	3.8		pH
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7782-49-2	Selenium	10	U	mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7440-22-4	Silver	12		mg/Kg
Area 3	MC-EE-PM-01	8/22/2008	0	0.5	FT	MCEE-WR-PM-03	No	7440-66-6	Zinc	1120	J	mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7440-36-0	Antimony	250		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7440-38-2	Arsenic	3980		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7440-43-9	Cadmium	0.3	U	mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7440-47-3	Chromium	5	U	mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7440-50-8	Copper	70		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7439-92-1	Lead	1260		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7439-97-6	Mercury	1.31	J	mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No		pH	2.9		pH
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7782-49-2	Selenium	0.74		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7440-22-4	Silver	42.5		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-01	No	7440-66-6	Zinc	21		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7440-36-0	Antimony	170		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7440-38-2	Arsenic	5880		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7440-43-9	Cadmium	0.69		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7440-47-3	Chromium	11		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7440-50-8	Copper	221		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7439-92-1	Lead	411	J	mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7439-97-6	Mercury	3.72	J	mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No		pH	4.1		pH
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7782-49-2	Selenium	0.88		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7440-22-4	Silver	19		mg/Kg
Area 3	MC-EE-PW-01	8/22/2008	0	0.5	FT	MCEE-WR-PW-02	No	7440-66-6	Zinc	184		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7440-36-0	Antimony	62		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7440-38-2	Arsenic	7320		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7440-43-9	Cadmium	10	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7440-47-3	Chromium	28		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7440-50-8	Copper	175		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7439-92-1	Lead	360		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7439-97-6	Mercury	0.25		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No		pH	4.4		pH
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7782-49-2	Selenium	10	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7440-22-4	Silver	5	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-01	No	7440-66-6	Zinc	382		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7440-36-0	Antimony	4.2		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7440-38-2	Arsenic	732		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7440-43-9	Cadmium	1	T	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7440-47-3	Chromium	217		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7440-50-8	Copper	187		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7439-92-1	Lead	45.2		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7439-97-6	Mercury	0.2	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No		pH	5.3		pH
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7782-49-2	Selenium	1	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7440-22-4	Silver	0.5	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-02	No	7440-66-6	Zinc	236	J	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7440-36-0	Antimony	280		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7440-38-2	Arsenic	39400		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7440-43-9	Cadmium	50	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7440-47-3	Chromium	33		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7440-50-8	Copper	1660		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7439-92-1	Lead	1660		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7439-97-6	Mercury	0.53		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No		pH	4.3		pH
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7782-49-2	Selenium	50	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7440-22-4	Silver	30	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-03	No	7440-66-6	Zinc	577		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7440-36-0	Antimony	110		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7440-38-2	Arsenic	10200		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7440-43-9	Cadmium	30	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7440-47-3	Chromium	30	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7440-50-8	Copper	242		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7439-92-1	Lead	1370		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7439-97-6	Mercury	0.22		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No		pH	4.4		pH
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7782-49-2	Selenium	30	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7440-22-4	Silver	10	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-04	No	7440-66-6	Zinc	392		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7440-36-0	Antimony	100	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7440-38-2	Arsenic	7780		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7440-43-9	Cadmium	30	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7440-47-3	Chromium	79		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7440-50-8	Copper	682		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7439-92-1	Lead	369		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7439-97-6	Mercury	0.27		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No		pH	4.4		pH
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7782-49-2	Selenium	30	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7440-22-4	Silver	17		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-05	No	7440-66-6	Zinc	269	J	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7440-36-0	Antimony	100	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7440-38-2	Arsenic	11700		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7440-43-9	Cadmium	30	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7440-47-3	Chromium	56		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7440-50-8	Copper	128		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7439-92-1	Lead	290		mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7439-97-6	Mercury	0.2	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No		pH	4.7		pH
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7782-49-2	Selenium	30	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7440-22-4	Silver	10	U	mg/Kg
Area 2	MC-EE-JU-01	8/21/2008	0	0.5	FT	MCEE-WR-JU-06	No	7440-66-6	Zinc	367	J	mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7440-36-0	Antimony	10.3		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7440-38-2	Arsenic	7510		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7440-43-9	Cadmium	0.33		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7440-47-3	Chromium	32		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7440-50-8	Copper	127		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7439-92-1	Lead	232		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7439-97-6	Mercury	0.99	J	mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No		pH	3.5		pH
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7782-49-2	Selenium	0.97		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7440-22-4	Silver	6.33		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-01	No	7440-66-6	Zinc	141		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7440-36-0	Antimony	400	U	mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7440-38-2	Arsenic	73400		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7440-43-9	Cadmium	1.87		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7440-47-3	Chromium	8		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7440-50-8	Copper	523		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7439-92-1	Lead	880		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7439-97-6	Mercury	0.76	J	mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No		pH	3.5		pH
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7782-49-2	Selenium	1.22		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7440-22-4	Silver	16.9		mg/Kg
Area 2	MC-EE-RY-01	8/21/2008	0	0.5	FT	MCEE-WR-RY-02	No	7440-66-6	Zinc	352		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7440-36-0	Antimony	0.5	T	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7440-38-2	Arsenic	72.6	J	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7440-43-9	Cadmium	0.3	U	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7440-47-3	Chromium	5	U	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7440-50-8	Copper	8		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7439-92-1	Lead	6.24	J	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7439-97-6	Mercury	0.89	J	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No		pH	4.1		pH
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7782-49-2	Selenium	0.93		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7440-22-4	Silver	0.2		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-01	No	7440-66-6	Zinc	5		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7440-36-0	Antimony	0.4	T	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7440-38-2	Arsenic	226	J	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7440-43-9	Cadmium	0.45		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7440-47-3	Chromium	16		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7440-50-8	Copper	131		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7439-92-1	Lead	23.3	J	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7439-97-6	Mercury	0.2	UJ	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No		pH	7.2		pH
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7782-49-2	Selenium	0.1	T	mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7440-22-4	Silver	0.46		mg/Kg
Area 2	MC-EE-BA-01	8/20/2008	0	0.5	FT	MCEE-WR-BA-02	No	7440-66-6	Zinc	114		mg/Kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7429-90-5	Aluminum	4990		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-36-0	Antimony	340		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-38-2	Arsenic	18600		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-39-3	Barium	58.8		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-43-9	Cadmium	2.2		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-70-2	Calcium	800		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-47-3	Chromium	59.7		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-48-4	Cobalt	6	U	mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-50-8	Copper	309		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7439-89-6	Iron	85800		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7439-92-1	Lead	3580		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7439-95-4	Magnesium	1490		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7439-96-5	Manganese	409		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7439-97-6	Mercury	1.01	J	mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-02-0	Nickel	50	U	mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No		pH	4.02		pH
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-09-7	Potassium	4280		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7782-49-2	Selenium	1.2		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-22-4	Silver	29.7		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-23-5	Sodium	500	U	mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-28-0	Thallium	4	U	mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-62-2	Vanadium	25.9		mg/kg
Area 1	MC-COL-10	7/20/2006	0	0.5	FT	COL-10 (0-0.5)	No	7440-66-6	Zinc	397		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7429-90-5	Aluminum	660		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-36-0	Antimony	8770		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-38-2	Arsenic	42000		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-39-3	Barium	22.5		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-43-9	Cadmium	39.8		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-70-2	Calcium	50		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-47-3	Chromium	81.5		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-48-4	Cobalt	6	U	mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-50-8	Copper	647		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7439-89-6	Iron	62500		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7439-92-1	Lead	18900		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7439-95-4	Magnesium	60	U	mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7439-96-5	Manganese	43.9		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7439-97-6	Mercury	0.66	J	mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-02-0	Nickel	100	U	mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No		pH	3.33		pH
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-09-7	Potassium	1240		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7782-49-2	Selenium	4.3		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-22-4	Silver	257		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-23-5	Sodium	500	U	mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-28-0	Thallium	4.9		mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-62-2	Vanadium	5	U	mg/kg
Area 1	MC-COL-11+09	7/20/2006	0.5	1.5	FT	COL-11 (0.5-1.5)	No	7440-66-6	Zinc	5160		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7429-90-5	Aluminum	18100		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-36-0	Antimony	9	J	mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-38-2	Arsenic	647		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-39-3	Barium	61.5		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-43-9	Cadmium	0.2	U	mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-70-2	Calcium	4410		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-47-3	Chromium	93.9		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-48-4	Cobalt	12.5		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-50-8	Copper	35.2		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7439-89-6	Iron	28300		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7439-92-1	Lead	107		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7439-95-4	Magnesium	8020		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7439-96-5	Manganese	503		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7439-97-6	Mercury	0.057	J	mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-02-0	Nickel	21.2		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No		pH	5.47		pH
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-09-7	Potassium	1900		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7782-49-2	Selenium	0.3		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-22-4	Silver	1.02		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-23-5	Sodium	831		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-28-0	Thallium	0.8	U	mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-62-2	Vanadium	71.6		mg/kg
Area 1	MC-HW-01	7/20/2006	0.5	0.5	FT	HW-01 (0-0.5)	No	7440-66-6	Zinc	150		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7429-90-5	Aluminum	22100		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-36-0	Antimony	90	J	mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-38-2	Arsenic	11000		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-39-3	Barium	51.3		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-43-9	Cadmium	2.2		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-70-2	Calcium	5520		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-47-3	Chromium	142		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-48-4	Cobalt	11.9		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-50-8	Copper	220		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7439-89-6	Iron	59800		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7439-92-1	Lead	1120		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7439-95-4	Magnesium	7710		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7439-96-5	Manganese	483		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7439-97-6	Mercury	0.613	J	mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-02-0	Nickel	50		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No		pH	3.98		pH
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-09-7	Potassium	1350		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7782-49-2	Selenium	1.3		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-22-4	Silver	9.5		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-23-5	Sodium	1130		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-28-0	Thallium	2	U	mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-62-2	Vanadium	64.7		mg/kg
Area 1	MC-HW-02	7/20/2006	0.5	0.5	FT	HW-02 (0-0.5)	No	7440-66-6	Zinc	233		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7429-90-5	Aluminum	15000		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-36-0	Antimony	4	J	mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-38-2	Arsenic	143		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-39-3	Barium	41.2		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-41-7	Beryllium	0.22		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-43-9	Cadmium	0.46		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-70-2	Calcium	1270		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-47-3	Chromium	32.3		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-48-4	Cobalt	5.45		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-50-8	Copper	43.7		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7439-89-6	Iron	14400		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7439-92-1	Lead	73.8		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7439-95-4	Magnesium	1850		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7439-96-5	Manganese	549		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7439-97-6	Mercury	0.17	J	mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-02-0	Nickel	9.3		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No		pH	4.18		pH
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-09-7	Potassium	491		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-22-4	Silver	0.88		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-23-5	Sodium	118		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-28-0	Thallium	0.8	U	mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-62-2	Vanadium	32.4		mg/kg
Area 1	MC-HW-03	7/20/2006	0.5	0.5	FT	HW-03 (0-0.5)	No	7440-66-6	Zinc	62.1		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7429-90-5	Aluminum	13100		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-36-0	Antimony	570	J	mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-38-2	Arsenic	22600		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-39-3	Barium	52		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-43-9	Cadmium	5.5		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-70-2	Calcium	1970		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-47-3	Chromium	48.2		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-48-4	Cobalt	9.9		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-50-8	Copper	2880		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7439-89-6	Iron	68500		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7439-92-1	Lead	2990		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7439-95-4	Magnesium	5150		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7439-96-5	Manganese	510		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7439-97-6	Mercury	0.582	J	mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-02-0	Nickel	29		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No		pH	4.47		pH
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-09-7	Potassium	1040		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7782-49-2	Selenium	1.5		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-22-4	Silver	102		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-23-5	Sodium	500	U	mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-28-0	Thallium	4	U	mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-62-2	Vanadium	41.4		mg/kg
Area 1	MC-HW-04	7/20/2006	0.5	0.5	FT	HW-04 (0-0.5)	No	7440-66-6	Zinc	970		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7429-90-5	Aluminum	20500		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-36-0	Antimony	2	UJ	mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-38-2	Arsenic	62.9		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-39-3	Barium	1170		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-41-7	Beryllium	2.93		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-43-9	Cadmium	0.2	U	mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-70-2	Calcium	14300		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-47-3	Chromium	74.2		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-48-4	Cobalt	9.34		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-50-8	Copper	68.1		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7439-89-6	Iron	15800		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7439-92-1	Lead	22.7		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7439-95-4	Magnesium	2480		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7439-96-5	Manganese	284		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7439-97-6	Mercury	0.033	J	mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-02-0	Nickel	12.6		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No		pH	5.9		pH
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-09-7	Potassium	561		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7782-49-2	Selenium	1.1		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-22-4	Silver	0.6		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-23-5	Sodium	878		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-28-0	Thallium	0.8	U	mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-62-2	Vanadium	104		mg/kg
Area 1	MC-HW-05	7/20/2006	0.5	0.5	FT	HW-05 (0-0.5)	No	7440-66-6	Zinc	32.5		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7429-90-5	Aluminum	1370		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-36-0	Antimony	400		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-38-2	Arsenic	6980		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-39-3	Barium	23.9		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-43-9	Cadmium	3.47		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-70-2	Calcium	773		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-47-3	Chromium	54.3		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-48-4	Cobalt	3.6		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-50-8	Copper	305		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7439-89-6	Iron	33200		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7439-92-1	Lead	4940		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7439-95-4	Magnesium	276		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7439-96-5	Manganese	75.9		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7439-97-6	Mercury	15.3	J	mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-02-0	Nickel	3.1		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No		pH	4.01		pH
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-09-7	Potassium	261		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-22-4	Silver	26.9		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-23-5	Sodium	488		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-62-2	Vanadium	32.2		mg/kg
Area 1	MC-AS-02	7/19/2006	0.5	1	FT	AS-02 (0.5-1)	No	7440-66-6	Zinc	644		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7429-90-5	Aluminum	980		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-36-0	Antimony	4500		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-38-2	Arsenic	85800		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-39-3	Barium	26.2		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-43-9	Cadmium	1.62		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-70-2	Calcium	260		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-47-3	Chromium	37.7		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-48-4	Cobalt	2.4		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-50-8	Copper	202		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7439-89-6	Iron	121000		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7439-92-1	Lead	3310		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7439-95-4	Magnesium	184		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7439-96-5	Manganese	72		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7439-97-6	Mercury	0.328	J	mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-02-0	Nickel	2.7		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No		pH	2.98		pH
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-09-7	Potassium	562		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7782-49-2	Selenium	3	U	mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-22-4	Silver	32.5		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-23-5	Sodium	392		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-62-2	Vanadium	21.1		mg/kg
Area 1	MC-AS-02	7/19/2006	1.5	2	FT	AS-03 (1.5-2)	No	7440-66-6	Zinc	450		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7429-90-5	Aluminum	1510		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-36-0	Antimony	1290		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-38-2	Arsenic	32100		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-39-3	Barium	203		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-43-9	Cadmium	1.6		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-70-2	Calcium	315		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-47-3	Chromium	27.6		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-48-4	Cobalt	4.4		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-50-8	Copper	243		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7439-89-6	Iron	58400		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7439-92-1	Lead	6300		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7439-95-4	Magnesium	198		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7439-96-5	Manganese	163		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7439-97-6	Mercury	0.245	J	mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-02-0	Nickel	5.2		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No		pH	3.03		pH
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-09-7	Potassium	1730		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7782-49-2	Selenium	1.9		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-22-4	Silver	57.9		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-23-5	Sodium	127		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-62-2	Vanadium	28.4		mg/kg
Area 1	MC-AS-04	7/19/2006	0.5	1	FT	AS-04	No	7440-66-6	Zinc	320		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7429-90-5	Aluminum	860		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-36-0	Antimony	3190		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-38-2	Arsenic	10900		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-39-3	Barium	35.3		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-43-9	Cadmium	10.1		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-70-2	Calcium	80		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-47-3	Chromium	38.4		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-48-4	Cobalt	6	U	mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-50-8	Copper	302		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7439-89-6	Iron	47000		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7439-92-1	Lead	12400		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7439-95-4	Magnesium	60	U	mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7439-96-5	Manganese	23.3		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7439-97-6	Mercury	0.267	J	mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-02-0	Nickel	20	U	mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No		pH	3.63		pH
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-09-7	Potassium	2630		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7782-49-2	Selenium	3.2		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-22-4	Silver	133		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-23-5	Sodium	500	U	mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-28-0	Thallium	3.4		mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-62-2	Vanadium	5	U	mg/kg
Area 1	MC-COL-04	7/19/2006	3	5.5	FT	COL-04 (3-5.5)	No	7440-66-6	Zinc	317		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7429-90-5	Aluminum	2180		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-36-0	Antimony	2490		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-38-2	Arsenic	88700		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-39-3	Barium	19.2		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-43-9	Cadmium	2	U	mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-70-2	Calcium	150		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-47-3	Chromium	13.9		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-48-4	Cobalt	6	U	mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-50-8	Copper	51		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7439-89-6	Iron	149000		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7439-92-1	Lead	720		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7439-95-4	Magnesium	910		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7439-96-5	Manganese	57.9		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7439-97-6	Mercury	0.415	J	mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-02-0	Nickel	100	U	mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No		pH	3.03		pH
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-09-7	Potassium	750		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7782-49-2	Selenium	4.4		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-22-4	Silver	9.8		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-23-5	Sodium	500	U	mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-28-0	Thallium	10	U	mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-62-2	Vanadium	24.3		mg/kg
Area 1	MC-COL-04	7/19/2006	0.5	1	FT	COL-05 (5-10)	No	7440-66-6	Zinc	38		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7429-90-5	Aluminum	4340		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-36-0	Antimony	20		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-38-2	Arsenic	2160		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-39-3	Barium	61.1		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-43-9	Cadmium	7.2		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-70-2	Calcium	2020		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-47-3	Chromium	53.8		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-48-4	Cobalt	9.8		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-50-8	Copper	635		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7439-89-6	Iron	51700		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7439-92-1	Lead	2220		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7439-95-4	Magnesium	2160		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7439-96-5	Manganese	340		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7439-97-6	Mercury	0.412	J	mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-02-0	Nickel	11		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No		pH	5.65		pH
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-09-7	Potassium	3690		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-22-4	Silver	16.2		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-23-5	Sodium	500	U	mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-28-0	Thallium	2	U	mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-62-2	Vanadium	27.6		mg/kg
Area 1	MC-COL-06	7/19/2006	6	6.5	FT	COL-06 (0-5)	No	7440-66-6	Zinc	995		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7429-90-5	Aluminum	3130		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-36-0	Antimony	40		mg/kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-66-6	Zinc	73		mg/Kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-38-2	Arsenic	21400		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-39-3	Barium	36		mg/kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7429-90-5	Aluminum	32000		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-36-0	Antimony	0.3		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-38-2	Arsenic	13		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-39-3	Barium	81		mg/Kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-43-9	Cadmium	114		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-70-2	Calcium	2790		mg/kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-41-7	Beryllium	0.54		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-43-9	Cadmium	0.22		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	STL00204	pH	5.12		SU
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-47-3	Chromium	33		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-48-4	Cobalt	7		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-50-8	Copper	1200		mg/kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	9/7/7440	Potassium	680		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7782-49-2	Selenium	0.84	T	mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-22-4	Silver	0.14	T	mg/Kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7439-89-6	Iron	85400		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7439-92-1	Lead	11100		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7439-95-4	Magnesium	2000		mg/kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-23-5	Sodium	90	T	mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-28-0	Thallium	0.21	T	mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	75-01-4	Vanadium	81		mg/Kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7439-96-5	Manganese	514		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7439-97-6	Mercury	0.933	J	mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-02-0	Nickel	50	U	mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No		pH	3.56		pH
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7429-90-5	Aluminum	22000		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-36-0	Antimony	0.54		mg/Kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-09-7	Potassium	3500		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-38-2	Arsenic	8.8		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-39-3	Barium	62		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-41-7	Beryllium	0.38		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-43-9	Cadmium	0.26		mg/Kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-22-4	Silver	53		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-23-5	Sodium	500	U	mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-28-0	Thallium	10	U	mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-70-2	Calcium	2400		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-47-3	Chromium	80		mg/Kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-62-2	Vanadium	16.2		mg/kg
Area 1	MC-COL-08	7/19/2006	1	7	FT	COL-08 (1-7)	No	7440-66-6	Zinc	17400		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7429-90-5	Aluminum	3870		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-36-0	Antimony	170		mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-48-4	Cobalt	21		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-50-8	Copper	65		mg/Kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-38-2	Arsenic	19200		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-39-3	Barium	88.9		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-41-7	Beryllium	2	U	mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-43-9	Cadmium	9.8		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-70-2	Calcium	880		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-47-3	Chromium	60.3		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-48-4	Cobalt	6	U	mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-50-8	Copper	1140		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7439-89-6	Iron	65000		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7439-92-1	Lead	5210		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7439-95-4	Magnesium	1010		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7439-96-5	Manganese	532		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7439-97-6	Mercury	0.402	J	mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-02-0	Nickel	50	U	mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No		pH	3.66		pH
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-09-7	Potassium	3860		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7782-49-2	Selenium	1.2		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-22-4	Silver	60.2		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-23-5	Sodium	500	U	mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-28-0	Thallium	4	U	mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-62-2	Vanadium	27.3		mg/kg
Area 1	MC-COL-11+09	7/19/2006	6	6.5	FT	COL-09 (6-6.5)	No	7440-66-6	Zinc	1730		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7429-90-5	Aluminum	3130		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-36-0	Antimony	3900		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-38-2	Arsenic	14900		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-39-3	Barium	27.8		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-43-9	Cadmium	7.99		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-70-2	Calcium	1090	J	mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-47-3	Chromium	56.1		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-48-4	Cobalt	4.22		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-50-8	Copper	569		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7439-89-6	Iron	57500		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7439-92-1	Lead	6200		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7439-95-4	Magnesium	1140		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7439-96-5	Manganese	298		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7439-97-6	Mercury	0.207	J	mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-02-0	Nickel	3.4		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No		pH	3.7		pH
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-09-7	Potassium	1900		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7782-49-2	Selenium	0.6	UJ	mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-22-4	Silver	52		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-23-5	Sodium	86		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-62-2	Vanadium	15.2		mg/kg
Area 1	MC-CON-10	7/19/2006	1	1	FT	CON-10 (1)	No	7440-66-6	Zinc	1210		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7429-90-5	Aluminum	24000		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-36-0	Antimony	140		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-38-2	Arsenic	9160		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-39-3	Barium	47.1		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-41-7	Beryllium	0.28		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-43-9	Cadmium	0.23		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-70-2	Calcium	1140		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-47-3	Chromium	94.5		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-48-4	Cobalt	7.22		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-50-8	Copper	292		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7439-89-6	Iron	46200		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7439-92-1	Lead	955		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7439-95-4	Magnesium	6290		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7439-96-5	Manganese	383		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7439-97-6	Mercury	0.293	J	mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-02-0	Nickel	18.1		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No		pH	4.45		pH
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-09-7	Potassium	1240		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7782-49-2	Selenium	1		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-22-4	Silver	12.8		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-23-5	Sodium	183		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-62-2	Vanadium	71.3		mg/kg
Area 1	MC-CON-11	7/19/2006	1	1	FT	CON-11	No	7440-66-6	Zinc	135		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7429-90-5	Aluminum	7440		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-36-0	Antimony	620		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-38-2	Arsenic	6640		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-39-3	Barium	19.9		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-43-9	Cadmium	0.2	U	mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-70-2	Calcium	750		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-47-3	Chromium	83.8		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-48-4	Cobalt	1.99		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-50-8	Copper	258		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7439-89-6	Iron	37000		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7439-92-1	Lead	2760		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7439-95-4	Magnesium	1240		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7439-96-5	Manganese	131		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7439-97-6	Mercury	0.078	J	mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-02-0	Nickel	5.6		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No		pH	4.34		pH
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-09-7	Potassium	1120		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-22-4	Silver	24.9		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-23-5	Sodium	328		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-62-2	Vanadium	40.7		mg/kg
Area 1	MC-CON-12	7/19/2006	1	1	FT	CON-12	No	7440-66-6	Zinc	63.7		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7429-90-5	Aluminum	10400		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-36-0	Antimony	1210		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-38-2	Arsenic	9460		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-39-3	Barium	22.4		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-43-9	Cadmium	0.33		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-70-2	Calcium	568		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-47-3	Chromium	76.2		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-48-4	Cobalt	1.49		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-50-8	Copper	231		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7439-89-6	Iron	41900		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7439-92-1	Lead	3270		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7439-95-4	Magnesium	1270		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7439-96-5	Manganese	95.1		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7439-97-6	Mercury	0.268	J	mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-02-0	Nickel	3.3		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No		pH	4.2		pH
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-09-7	Potassium	1690		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-22-4	Silver	55.1		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-23-5	Sodium	126		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-62-2	Vanadium	32.5		mg/kg
Area 1	MC-CON-13	7/19/2006	1	1	FT	CON-13	No	7440-66-6	Zinc	209		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7429-90-5	Aluminum	21600		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-36-0	Antimony	110		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-38-2	Arsenic	1760		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-39-3	Barium	235		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-41-7	Beryllium	1.32		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-43-9	Cadmium	1.76		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-70-2	Calcium	3810		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-47-3	Chromium	69.2		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-48-4	Cobalt	28.1		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-50-8	Copper	452		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7439-89-6	Iron	22200		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7439-92-1	Lead	857		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7439-95-4	Magnesium	2140		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7439-96-5	Manganese	1810		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7439-97-6	Mercury	0.182	J	mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-02-0	Nickel	10.8		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No		pH	4.49		pH
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-09-7	Potassium	769		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7782-49-2	Selenium	1.3		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-22-4	Silver	17.7		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-23-5	Sodium	363		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-62-2	Vanadium	88		mg/kg
Area 1	MC-CON-14	7/19/2006	1	1	FT	CON-14	No	7440-66-6	Zinc	180		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7429-90-5	Aluminum	4350		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-36-0	Antimony	1300		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-38-2	Arsenic	12600		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-39-3	Barium	37.1		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-43-9	Cadmium	6.17		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-70-2	Calcium	692		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-47-3	Chromium	64.6		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-48-4	Cobalt	4.39		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-50-8	Copper	396		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7439-89-6	Iron	58700		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7439-92-1	Lead	3530		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7439-95-4	Magnesium	970		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7439-96-5	Manganese	515		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7439-97-6	Mercury	0.38	J	mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-02-0	Nickel	5		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No		pH	3.83		pH
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-09-7	Potassium	1930		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-22-4	Silver	35.9		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-23-5	Sodium	130		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-62-2	Vanadium	23.5		mg/kg
Area 1	MC-CON-15	7/19/2006	1	1	FT	CON-15	No	7440-66-6	Zinc	900		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7429-90-5	Aluminum	3320		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-36-0	Antimony	1650		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-38-2	Arsenic	14400		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-39-3	Barium	30.9		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-43-9	Cadmium	6.39		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-70-2	Calcium	468		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-47-3	Chromium	49.8		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-48-4	Cobalt	5.86		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-50-8	Copper	273		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7439-89-6	Iron	55900		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7439-92-1	Lead	3980		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7439-95-4	Magnesium	1150		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7439-96-5	Manganese	908		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7439-97-6	Mercury	0.64	J	mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-02-0	Nickel	3.9		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No		pH	4.08		pH
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-09-7	Potassium	1780		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7782-49-2	Selenium	1.5	U	mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-22-4	Silver	36.2		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-23-5	Sodium	55		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-62-2	Vanadium	18.1		mg/kg
Area 1	MC-CON-16	7/19/2006	0	1	FT	CON-16	No	7440-66-6	Zinc	570		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7429-90-5	Aluminum	2770		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-36-0	Antimony	4790		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-38-2	Arsenic	41600		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-39-3	Barium	30.1		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-43-9	Cadmium	114		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-70-2	Calcium	6580		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-47-3	Chromium	20.7		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-48-4	Cobalt	21		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-50-8	Copper	2620		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7439-89-6	Iron	117000		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7439-92-1	Lead	11800		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7439-95-4	Magnesium	4150		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7439-96-5	Manganese	7210		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7439-97-6	Mercury	0.217	J	mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-02-0	Nickel	7.4		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No		pH	4.09		pH
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-09-7	Potassium	1880		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7782-49-2	Selenium	1.5	U	mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-22-4	Silver	150		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-23-5	Sodium	93		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-62-2	Vanadium	16.3		mg/kg
Area 1	MC-CON-16	7/19/2006	1	1.5	FT	CON-16 (1)	No	7440-66-6	Zinc	18500		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7429-90-5	Aluminum	14100		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-36-0	Antimony	500		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-38-2	Arsenic	8850		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-39-3	Barium	19.6		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-43-9	Cadmium	0.59		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-70-2	Calcium	652		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-47-3	Chromium	69.4		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-48-4	Cobalt	0.6	U	mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-50-8	Copper	1250		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7439-89-6	Iron	85100		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7439-92-1	Lead	2570		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7439-95-4	Magnesium	304		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7439-96-5	Manganese	43		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7439-97-6	Mercury	0.11	J	mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-02-0	Nickel	2.1		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No		pH	4.56		pH
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-09-7	Potassium	495		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7782-49-2	Selenium	2.4		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-22-4	Silver	22.2		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-23-5	Sodium	605		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-62-2	Vanadium	28.9		mg/kg
Area 1	MC-CON-17	7/19/2006	1	1	FT	CON-17	No	7440-66-6	Zinc	160		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7429-90-5	Aluminum	20700		mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7439-89-6	Iron	38000		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-36-0	Antimony	50		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-38-2	Arsenic	2150		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-39-3	Barium	522		mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7439-89-6	Iron	35000		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7439-92-1	Lead	12		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7439-95-4	Magnesium	16000		mg/Kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-41-7	Beryllium	1.85		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-43-9	Cadmium	1.3		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-70-2	Calcium	7390		mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7439-96-5	Manganese	1300		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7439-97-6	Mercury	0.14		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-02-0	Nickel	130		mg/Kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-47-3	Chromium	62.3		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-48-4	Cobalt	6.44		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-50-8	Copper	203		mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	STL00204	pH	4.93		SU
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	9/7/7440	Potassium	740		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7782-49-2	Selenium	0.71	T	mg/Kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7439-89-6	Iron	19800		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7439-92-1	Lead	699		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7439-95-4	Magnesium	2640		mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-22-4	Silver	0.087	T	mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-23-5	Sodium	88	T	mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-28-0	Thallium	0.14	T	mg/Kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7439-96-5	Manganese	294		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7439-97-6	Mercury	0.158	J	mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-02-0	Nickel	11.4		mg/kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	75-01-4	Vanadium	69		mg/Kg
Area 5	MC-HC-01	7/9/2011	0	6	in	Weden 1 S1 (0-6)	No	7440-66-6	Zinc	65		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7429-90-5	Aluminum	28000		mg/Kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No		pH	4.57		pH
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-09-7	Potassium	707		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7782-49-2	Selenium	1.1		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-22-4	Silver	10.1		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-23-5	Sodium	883		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-28-0	Thallium	8	U	mg/kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-36-0	Antimony	0.33	J	mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-38-2	Arsenic	12		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-39-3	Barium	65		mg/Kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-62-2	Vanadium	90.5		mg/kg
Area 1	MC-CON-18	7/19/2006	0	1	FT	CON-18	No	7440-66-6	Zinc	139		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7429-90-5	Aluminum	25800		mg/kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-41-7	Beryllium	0.44		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-43-9	Cadmium	0.36		mg/Kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-36-0	Antimony	2	U	mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-38-2	Arsenic	137		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-39-3	Barium	53.3		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-41-7	Beryllium	0.32		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-43-9	Cadmium	0.2	U	mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-70-2	Calcium	1480		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-47-3	Chromium	64.6		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-48-4	Cobalt	3.61		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-50-8	Copper	29.9		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7439-89-6	Iron	21000		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7439-92-1	Lead	36.6		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7439-95-4	Magnesium	4130		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7439-96-5	Manganese	161		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7439-97-6	Mercury	0.048	J	mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-02-0	Nickel	9.5		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No		pH	4.69		pH
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-09-7	Potassium	578		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7782-49-2	Selenium	0.9		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-22-4	Silver	0.56		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-23-5	Sodium	314		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-62-2	Vanadium	70.8		mg/kg
Area 1	MC-CON-18	7/19/2006	2	3	FT	CON-18 (24-36")	No	7440-66-6	Zinc	58.8		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7429-90-5	Aluminum	6470		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-36-0	Antimony	2800		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-38-2	Arsenic	36100		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-39-3	Barium	319		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-41-7	Beryllium	0.26		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-43-9	Cadmium	1.43		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-70-2	Calcium	1270		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-47-3	Chromium	50		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-48-4	Cobalt	4.8		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-50-8	Copper	504		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7439-89-6	Iron	86800		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7439-92-1	Lead	9490		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7439-95-4	Magnesium	2310		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7439-96-5	Manganese	217		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7439-97-6	Mercury	0.64	J	mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-02-0	Nickel	6.6		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No		pH	3.58		pH
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-09-7	Potassium	1500		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7782-49-2	Selenium	1.5	U	mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-22-4	Silver	131		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-23-5	Sodium	234		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-28-0	Thallium	8	U	mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-62-2	Vanadium	43.9		mg/kg
Area 1	MC-CON-19	7/19/2006	1	1	FT	CON-19	No	7440-66-6	Zinc	310		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7429-90-5	Aluminum	10700		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-36-0	Antimony	204		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-38-2	Arsenic	41600		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-39-3	Barium	66.8		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-43-9	Cadmium	5.79		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-70-2	Calcium	1690		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-47-3	Chromium	39.6		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-48-4	Cobalt	11		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-50-8	Copper	1840		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7439-89-6	Iron	68200		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7439-92-1	Lead	2720		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7439-95-4	Magnesium	4460		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7439-96-5	Manganese	506		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7439-97-6	Mercury	8.7	J	mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-02-0	Nickel	22.3		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No		pH	4.11		pH
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-09-7	Potassium	1710		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7782-49-2	Selenium	2.34		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-22-4	Silver	40.2		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-28-0	Thallium	1.5	U	mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-62-2	Vanadium	41.7		mg/kg
Area 1	MC-COL-01	9/10/2005	0.5	0.5	FT	COL-01-0.5	No	7440-66-6	Zinc	969		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7429-90-5	Aluminum	7500		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-36-0	Antimony	183		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-38-2	Arsenic	37100		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-39-3	Barium	46.7		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-43-9	Cadmium	9.26		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-70-2	Calcium	3240		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-47-3	Chromium	35.9		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-48-4	Cobalt	12.6		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-50-8	Copper	896		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7439-89-6	Iron	71500		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7439-92-1	Lead	3720		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7439-95-4	Magnesium	3690		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7439-96-5	Manganese	1220		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7439-97-6	Mercury	3.83	J	mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-02-0	Nickel	18.3		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No		pH	4.6		pH
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-09-7	Potassium	2220		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7782-49-2	Selenium	2.03		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-22-4	Silver	36.2		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-28-0	Thallium	1.5	U	mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-62-2	Vanadium	26.8		mg/kg
Area 1	MC-COL-01	9/10/2005	2	2	FT	COL-01-2	No	7440-66-6	Zinc	1350		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7429-90-5	Aluminum	7350		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-36-0	Antimony	328		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-38-2	Arsenic	71600		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-39-3	Barium	36		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-43-9	Cadmium	15.9		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-70-2	Calcium	5130		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-47-3	Chromium	41.8		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-48-4	Cobalt	12.9		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-50-8	Copper	1760		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7439-89-6	Iron	87100		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7439-92-1	Lead	2480		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7439-95-4	Magnesium	3830		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7439-96-5	Manganese	1330		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7439-97-6	Mercury	5.38	J	mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-02-0	Nickel	19.4		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No		pH	4.92		pH
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-09-7	Potassium	1620		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7782-49-2	Selenium	3.18		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-22-4	Silver	34.1		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-28-0	Thallium	1.5	U	mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-62-2	Vanadium	34.1		mg/kg
Area 1	MC-COL-01	9/10/2005	3	3	FT	COL-01-3	No	7440-66-6	Zinc	2130		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7429-90-5	Aluminum	599		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-36-0	Antimony	9860		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-38-2	Arsenic	14000		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-39-3	Barium	26.2		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-43-9	Cadmium	13.7		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-70-2	Calcium	22.8		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-47-3	Chromium	29.7		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-48-4	Cobalt	0.6	U	mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-50-8	Copper	509		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7439-89-6	Iron	33400		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7439-92-1	Lead	22500		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7439-95-4	Magnesium	29.8		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7439-96-5	Manganese	29.6		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7439-97-6	Mercury	5.45	J	mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-02-0	Nickel	8.6		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No		pH	3.49		pH
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-09-7	Potassium	1820		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7782-49-2	Selenium	3.23		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-22-4	Silver	415		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-28-0	Thallium	5.57		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-62-2	Vanadium	1.94		mg/kg
Area 1	MC-COL-02	9/10/2005	0.5	0.5	FT	COL-02-0.5	No	7440-66-6	Zinc	814		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7429-90-5	Aluminum	763		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-36-0	Antimony	3240		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-38-2	Arsenic	11500		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-39-3	Barium	30.2		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-43-9	Cadmium	5.95		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-70-2	Calcium	22.5		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-47-3	Chromium	29.3		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-48-4	Cobalt	0.6	U	mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-50-8	Copper	318		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7439-89-6	Iron	32000		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7439-92-1	Lead	16000		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7439-95-4	Magnesium	38.2		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7439-96-5	Manganese	18		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7439-97-6	Mercury	7.75	J	mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-02-0	Nickel	7.7		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No		pH	3.53		pH
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-09-7	Potassium	1850		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7782-49-2	Selenium	3.91		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-22-4	Silver	214		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-28-0	Thallium	4.94		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-62-2	Vanadium	2.4		mg/kg
Area 1	MC-COL-02	9/10/2005	2	2	FT	COL-02-2	No	7440-66-6	Zinc	298		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7429-90-5	Aluminum	807		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-36-0	Antimony	3270		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-38-2	Arsenic	13200		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-39-3	Barium	113		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-43-9	Cadmium	6.06		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-70-2	Calcium	43.5		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-47-3	Chromium	25		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-48-4	Cobalt	0.6	U	mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-50-8	Copper	329		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7439-89-6	Iron	40500		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7439-92-1	Lead	14700		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7439-95-4	Magnesium	51.9		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7439-96-5	Manganese	21.2		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7439-97-6	Mercury	5.85	J	mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-02-0	Nickel	10		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No		pH	3.25		pH
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-09-7	Potassium	2450		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7782-49-2	Selenium	3.34		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-22-4	Silver	182		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-28-0	Thallium	4.59		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-62-2	Vanadium	2.66		mg/kg
Area 1	MC-COL-03	9/10/2005	3	3	FT	COL-03-0.5	No	7440-66-6	Zinc	256		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7429-90-5	Aluminum	1100		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-36-0	Antimony	6640		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-38-2	Arsenic	23200		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-39-3	Barium	30.7		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-43-9	Cadmium	19.5		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-70-2	Calcium	49.9		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-47-3	Chromium	35.2		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-48-4	Cobalt	1.39		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-50-8	Copper	348		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7439-89-6	Iron	59000		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7439-92-1	Lead	20800		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7439-95-4	Magnesium	59		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7439-96-5	Manganese	40.4		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7439-97-6	Mercury	6.22	J	mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-02-0	Nickel	12.5		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No		pH	3.75		pH
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-09-7	Potassium	2280		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7782-49-2	Selenium	3.05		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-22-4	Silver	180		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-28-0	Thallium	4.14		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-62-2	Vanadium	3.42		mg/kg
Area 1	MC-COL-03	9/10/2005	2	2	FT	COL-03-2	No	7440-66-6	Zinc	2150		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7429-90-5	Aluminum	529		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-36-0	Antimony	6460		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-38-2	Arsenic	5610		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-39-3	Barium	28.8		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-43-9	Cadmium	4.43		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-70-2	Calcium	25.1		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-47-3	Chromium	37		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-48-4	Cobalt	0.6	U	mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-50-8	Copper	1080		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7439-89-6	Iron	47600		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7439-92-1	Lead	21400		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7439-95-4	Magnesium	17.1		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7439-96-5	Manganese	24.2		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7439-97-6	Mercury	6.2	J	mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-02-0	Nickel	18.1		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No		pH	3.48		pH
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-09-7	Potassium	940		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7782-49-2	Selenium	6000	UJ	mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-22-4	Silver	376		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-28-0	Thallium	15.8		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-62-2	Vanadium	0.92		mg/kg
Area 1	MC-CON-01	9/10/2005	0.5	0.5	FT	CON-01-0.5	No	7440-66-6	Zinc	452		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7429-90-5	Aluminum	1590		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-36-0	Antimony	10700		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-38-2	Arsenic	21700		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-39-3	Barium	47		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-43-9	Cadmium	12.9		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-70-2	Calcium	194		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-47-3	Chromium	33.7		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-48-4	Cobalt	1.2		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-50-8	Copper	899		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7439-89-6	Iron	45600		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7439-92-1	Lead	20800		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7439-95-4	Magnesium	490		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7439-96-5	Manganese	37.2		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7439-97-6	Mercury	3.95	J	mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-02-0	Nickel	20.3		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No		pH	3.4		pH
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-09-7	Potassium	1000		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7782-49-2	Selenium	6.77		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-22-4	Silver	294		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-28-0	Thallium	4.3		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-62-2	Vanadium	9.4		mg/kg
Area 1	MC-CON-01	9/10/2005	1.5	1.5	FT	CON-01-1.5	No	7440-66-6	Zinc	1290		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7429-90-5	Aluminum	5430		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-36-0	Antimony	1130		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-38-2	Arsenic	18000		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-39-3	Barium	445		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-41-7	Beryllium	0.22		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-43-9	Cadmium	2.87		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-70-2	Calcium	1420		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-47-3	Chromium	40.1		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-48-4	Cobalt	3.78		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-50-8	Copper	586		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7439-89-6	Iron	60000		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7439-92-1	Lead	7370		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7439-95-4	Magnesium	2260		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7439-96-5	Manganese	235		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7439-97-6	Mercury	0.825	J	mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-02-0	Nickel	33.4		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No		pH	3.69		pH
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-09-7	Potassium	1000	U	mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7782-49-2	Selenium	1.36		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-22-4	Silver	63.3		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-28-0	Thallium	1.5	U	mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-62-2	Vanadium	32.8		mg/kg
Area 1	MC-CON-02	9/10/2005	0.5	0.5	FT	CON-02-0.5	No	7440-66-6	Zinc	205		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7429-90-5	Aluminum	4750		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-36-0	Antimony	4780		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-38-2	Arsenic	53300		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-39-3	Barium	239		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-41-7	Beryllium	0.6		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-43-9	Cadmium	76.3		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-70-2	Calcium	2060		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-47-3	Chromium	20.2		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-48-4	Cobalt	10.9		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-50-8	Copper	4240		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7439-89-6	Iron	142000		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7439-92-1	Lead	11200		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7439-95-4	Magnesium	444		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7439-96-5	Manganese	219		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7439-97-6	Mercury	1.38	J	mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-02-0	Nickel	45.6		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No		pH	3.45		pH
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-09-7	Potassium	2500	U	mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7782-49-2	Selenium	6000	U	mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-22-4	Silver	186		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-28-0	Thallium	4.9		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-62-2	Vanadium	21.2		mg/kg
Area 1	MC-CON-02	9/10/2005	1.5	1.5	FT	CON-02-1.5	No	7440-66-6	Zinc	11600		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7429-90-5	Aluminum	2120		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-36-0	Antimony	3960		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-38-2	Arsenic	14500		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-39-3	Barium	25.5		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-43-9	Cadmium	7.94		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-70-2	Calcium	335		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-47-3	Chromium	32.3		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-48-4	Cobalt	1.93		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-50-8	Copper	497		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7439-89-6	Iron	48200		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7439-92-1	Lead	6140		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7439-95-4	Magnesium	459		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7439-96-5	Manganese	249		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7439-97-6	Mercury	1.27	J	mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-02-0	Nickel	19.5		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No		pH	3.39		pH
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-09-7	Potassium	1690		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7782-49-2	Selenium	0.8		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-22-4	Silver	74		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-28-0	Thallium	1.5		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-62-2	Vanadium	12.3		mg/kg
Area 1	MC-CON-03	9/10/2005	0.5	0.5	FT	CON-03-0.5	No	7440-66-6	Zinc	912		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7429-90-5	Aluminum	2690		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-36-0	Antimony	3420		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-38-2	Arsenic	11800		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-39-3	Barium	26.5		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-43-9	Cadmium	6.33		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-70-2	Calcium	509		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-47-3	Chromium	33.4		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-48-4	Cobalt	1.61		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-50-8	Copper	635		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7439-89-6	Iron	47000		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7439-92-1	Lead	5170		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7439-95-4	Magnesium	556		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7439-96-5	Manganese	193		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7439-97-6	Mercury	1.52	J	mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-02-0	Nickel	20.9		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No		pH	3.32		pH
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-09-7	Potassium	1700		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7782-49-2	Selenium	0.61		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-22-4	Silver	74.6		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-28-0	Thallium	1.5	U	mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-62-2	Vanadium	14.8		mg/kg
Area 1	MC-CON-03	9/10/2005	1.5	1.5	FT	CON-03-1.5	No	7440-66-6	Zinc	850		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7429-90-5	Aluminum	1610		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-36-0	Antimony	430		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-38-2	Arsenic	41300		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-39-3	Barium	25.7		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-43-9	Cadmium	7.51		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-70-2	Calcium	142		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-47-3	Chromium	21.8		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-48-4	Cobalt	0.65		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-50-8	Copper	114		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7439-89-6	Iron	68800		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7439-92-1	Lead	3580		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7439-95-4	Magnesium	68.3		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7439-96-5	Manganese	170		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7439-97-6	Mercury	1.34	J	mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-02-0	Nickel	26.3		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No		pH	3.45		pH
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-09-7	Potassium	1500		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7782-49-2	Selenium	1.22		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-22-4	Silver	23.9		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-23-5	Sodium	50	U	mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-28-0	Thallium	1.5	U	mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-62-2	Vanadium	11.5		mg/kg
Area 1	MC-CON-04	9/10/2005	0.5	0.5	FT	CON-04-0.5	No	7440-66-6	Zinc	441		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7429-90-5	Aluminum	840		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-36-0	Antimony	6040		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-38-2	Arsenic	22600		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-39-3	Barium	266		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-43-9	Cadmium	14.4		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-70-2	Calcium	42.9		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-47-3	Chromium	17.7		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-48-4	Cobalt	0.65		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-50-8	Copper	1770		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7439-89-6	Iron	38700		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7439-92-1	Lead	20800		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7439-95-4	Magnesium	42.4		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7439-96-5	Manganese	44		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7439-97-6	Mercury	3.28	J	mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-02-0	Nickel	15.3		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No		pH	3.26		pH
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-09-7	Potassium	1330		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7782-49-2	Selenium	6000	U	mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-22-4	Silver	360		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-28-0	Thallium	3.4		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-62-2	Vanadium	2.5		mg/kg
Area 1	MC-CON-05	9/10/2005	0.5	0.5	FT	CON-05-0.5	No	7440-66-6	Zinc	1740		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7429-90-5	Aluminum	23600		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-36-0	Antimony	7.6		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-38-2	Arsenic	446		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-39-3	Barium	84.5		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-41-7	Beryllium	0.24		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-43-9	Cadmium	1.87		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-70-2	Calcium	1920		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-47-3	Chromium	62.8		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-48-4	Cobalt	12.1		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-50-8	Copper	57.7		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7439-89-6	Iron	30000		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7439-92-1	Lead	84.7		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7439-95-4	Magnesium	8440		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7439-96-5	Manganese	830		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7439-97-6	Mercury	0.108	J	mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-02-0	Nickel	40.1		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No		pH	5.02		pH
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-09-7	Potassium	2170		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-22-4	Silver	1.01		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-23-5	Sodium	278		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-28-0	Thallium	1.5	U	mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-62-2	Vanadium	64.4		mg/kg
Area 1	MC-CON-06	9/10/2005	0.5	0.5	FT	CON-06-0.5	No	7440-66-6	Zinc	176		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7429-90-5	Aluminum	3020		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-36-0	Antimony	4300		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-38-2	Arsenic	46400		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-39-3	Barium	125		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-43-9	Cadmium	5.81		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-70-2	Calcium	476		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-47-3	Chromium	27		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-48-4	Cobalt	6.13		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-50-8	Copper	734		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7439-89-6	Iron	86700		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7439-92-1	Lead	17200		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7439-95-4	Magnesium	1020		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7439-96-5	Manganese	133		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7439-97-6	Mercury	1.56	J	mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-02-0	Nickel	35.9		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No		pH	3.36		pH
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-09-7	Potassium	2500	U	mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7782-49-2	Selenium	6	U	mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-22-4	Silver	113		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-28-0	Thallium	2.2		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-62-2	Vanadium	20.3		mg/kg
Area 1	MC-CON-07	9/10/2005	0.5	0.5	FT	CON-07-0.5	No	7440-66-6	Zinc	549		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7429-90-5	Aluminum	1230		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-36-0	Antimony	5490		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-38-2	Arsenic	34600		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-39-3	Barium	93.2		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-43-9	Cadmium	6.64		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-70-2	Calcium	254		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-47-3	Chromium	23.1		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-48-4	Cobalt	0.6	U	mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-50-8	Copper	501		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7439-89-6	Iron	72200		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7439-92-1	Lead	8860		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7439-95-4	Magnesium	184		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7439-96-5	Manganese	50.9		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7439-97-6	Mercury	2.43	J	mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-02-0	Nickel	26.2		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No		pH	3.02		pH
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-09-7	Potassium	1500		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7782-49-2	Selenium	1.59		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-22-4	Silver	118		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-28-0	Thallium	2.5		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-62-2	Vanadium	7.72		mg/kg
Area 1	MC-CON-08	9/10/2005	0.5	0.5	FT	CON-08-0.5	No	7440-66-6	Zinc	719		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7429-90-5	Aluminum	1080		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-36-0	Antimony	6630		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-38-2	Arsenic	92100		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-39-3	Barium	30.2		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-43-9	Cadmium	16.3		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-70-2	Calcium	12.4		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-47-3	Chromium	18.5		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-48-4	Cobalt	1.53		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-50-8	Copper	1390		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7439-89-6	Iron	82900		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7439-92-1	Lead	17900		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7439-95-4	Magnesium	33.7		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7439-96-5	Manganese	16.6		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7439-97-6	Mercury	8.35	J	mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-02-0	Nickel	30.7		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No		pH	3		pH
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-09-7	Potassium	2500	U	mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7782-49-2	Selenium	6	U	mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-22-4	Silver	229		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-28-0	Thallium	5.6		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-62-2	Vanadium	3.37		mg/kg
Area 1	MC-CON-09	9/10/2005	0.5	0.5	FT	CON-09-0.5	No	7440-66-6	Zinc	1850		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7429-90-5	Aluminum	1590		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-36-0	Antimony	4460		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-38-2	Arsenic	24300		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-39-3	Barium	21		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-43-9	Cadmium	7.41		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-70-2	Calcium	136		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-47-3	Chromium	18.6		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-48-4	Cobalt	2.54		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-50-8	Copper	691		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7439-89-6	Iron	48600		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7439-92-1	Lead	8190		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7439-95-4	Magnesium	241		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7439-96-5	Manganese	103		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7439-97-6	Mercury	1.78	J	mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-02-0	Nickel	19.3		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No		pH	3.36		pH
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-09-7	Potassium	1500		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7782-49-2	Selenium	1.54		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-22-4	Silver	251		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-28-0	Thallium	1.9		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-62-2	Vanadium	9.88		mg/kg
Area 3	MC-MM-01	9/9/2005	0.5	0.5	FT	MM-01-0.5	No	7440-66-6	Zinc	884		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7429-90-5	Aluminum	1270		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-36-0	Antimony	3750		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-38-2	Arsenic	24000		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-39-3	Barium	19.4		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-43-9	Cadmium	26.4		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-70-2	Calcium	91.6		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-47-3	Chromium	22.1		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-48-4	Cobalt	1.51		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-50-8	Copper	1040		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7439-89-6	Iron	45500		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7439-92-1	Lead	7030		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7439-95-4	Magnesium	116		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7439-96-5	Manganese	55.9		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7439-97-6	Mercury	2.05	J	mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-02-0	Nickel	17.5		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No		pH	3.7		pH
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-09-7	Potassium	1600		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7782-49-2	Selenium	1.39		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-22-4	Silver	94.6		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-23-5	Sodium	50	U	mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-28-0	Thallium	1.8		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-62-2	Vanadium	5.94		mg/kg
Area 3	MC-MM-01	9/9/2005	1	1	FT	MM-01-1.0	No	7440-66-6	Zinc	3540		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7429-90-5	Aluminum	1630		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-36-0	Antimony	320		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-38-2	Arsenic	17000		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-39-3	Barium	81		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-43-9	Cadmium	11.1		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-70-2	Calcium	333		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-47-3	Chromium	28.5		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-48-4	Cobalt	1.7		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-50-8	Copper	345		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7439-89-6	Iron	272000		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7439-92-1	Lead	815		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7439-95-4	Magnesium	307		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7439-96-5	Manganese	301		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7439-97-6	Mercury	0.59	J	mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-02-0	Nickel	82.7		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No		pH	3.57		pH
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-09-7	Potassium	1000	U	mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-22-4	Silver	7.19		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-28-0	Thallium	1.5	U	mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-62-2	Vanadium	15.6		mg/kg
Area 3	MC-MM-02	9/9/2005	0.5	0.5	FT	MM-02-0.5	No	7440-66-6	Zinc	278		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7429-90-5	Aluminum	4230		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-36-0	Antimony	650		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-38-2	Arsenic	21400		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-39-3	Barium	32.4		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-41-7	Beryllium	0.2	U	mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-43-9	Cadmium	11.2		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-70-2	Calcium	782		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-47-3	Chromium	24		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-48-4	Cobalt	7.85		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-50-8	Copper	823		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7439-89-6	Iron	121000		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7439-92-1	Lead	2350		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7439-95-4	Magnesium	1420		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7439-96-5	Manganese	203		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7439-97-6	Mercury	0.832	J	mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-02-0	Nickel	38.8		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No		pH	3.34		pH

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-09-7	Potassium	2300		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7782-49-2	Selenium	1.67		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-22-4	Silver	46.6		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-23-5	Sodium	50	U	mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-28-0	Thallium	3.5		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-62-2	Vanadium	30.7		mg/kg
Area 3	MC-MM-03	9/9/2005	0.5	0.5	FT	MM-03-0.5	No	7440-66-6	Zinc	1360		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7429-90-5	Aluminum	7370		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-36-0	Antimony	20.4		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-38-2	Arsenic	2480		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-39-3	Barium	23.6		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-41-7	Beryllium	0.25		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-43-9	Cadmium	7.11		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-70-2	Calcium	5580		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-47-3	Chromium	11.1		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-48-4	Cobalt	21.2		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-50-8	Copper	139		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7439-89-6	Iron	52500		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7439-92-1	Lead	198		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7439-95-4	Magnesium	3000		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7439-96-5	Manganese	4820		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7439-97-6	Mercury	0.37	J	mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-02-0	Nickel	30.3		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No		pH	6.18		pH
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-09-7	Potassium	3370		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7782-49-2	Selenium	0.6	U	mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-22-4	Silver	4.58		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-23-5	Sodium	294		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-28-0	Thallium	5.8		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-62-2	Vanadium	73.9		mg/kg
Area 3	MC-MM-04	9/9/2005	0.5	0.5	FT	MM-04-0.5	No	7440-66-6	Zinc	1180		mg/kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-70-2	Calcium	1900		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-47-3	Chromium	77	J	mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-48-4	Cobalt	21		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-50-8	Copper	71		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7439-89-6	Iron	43000		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7439-89-6	Iron	39000		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7439-92-1	Lead	11		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7439-95-4	Magnesium	13000		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7439-96-5	Manganese	1100		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7439-97-6	Mercury	0.14		mg/Kg
Area 5	MC-HC-01	7/9/2011	6	12	in	Weden 1 S1 (6-12)	No	7440-02-0	Nickel	110	J	mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-70-2	Calcium	2500		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-47-3	Chromium	140		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-48-4	Cobalt	33		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-50-8	Copper	86		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7439-89-6	Iron	53000		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7439-89-6	Iron	51000		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7439-92-1	Lead	9.8		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7439-95-4	Magnesium	25000		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7439-96-5	Manganese	970		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7439-97-6	Mercury	0.09		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-02-0	Nickel	260		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	STL00204	pH	6.52		SU
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	9/7/7440	Potassium	750		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7782-49-2	Selenium	0.99		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-22-4	Silver	0.084	T	mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-23-5	Sodium	91	T	mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-28-0	Thallium	0.13	T	mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	75-01-4	Vanadium	97		mg/Kg
Area 5	MC-HC-02	7/12/2011	0	6	in	Weden 1 S2 (0-6)	No	7440-66-6	Zinc	84		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7429-90-5	Aluminum	32000		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-36-0	Antimony	0.36		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-38-2	Arsenic	15		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-39-3	Barium	110		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-41-7	Beryllium	0.58		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-43-9	Cadmium	0.25		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-70-2	Calcium	2900		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-47-3	Chromium	130		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-48-4	Cobalt	31		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-50-8	Copper	88		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7439-89-6	Iron	51000		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7439-89-6	Iron	47000		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7439-92-1	Lead	11		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7439-95-4	Magnesium	23000		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7439-96-5	Manganese	970		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7439-97-6	Mercury	0.11		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-02-0	Nickel	250		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	STL00204	pH	6.46		SU
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	9/7/7440	Potassium	840		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7782-49-2	Selenium	1.1		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-22-4	Silver	0.1	T	mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-23-5	Sodium	120		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-28-0	Thallium	0.13	T	mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	75-01-4	Vanadium	96		mg/Kg
Area 5	MC-HC-02	7/12/2011	6	12	in	Weden 1 S2 (6-12)	No	7440-66-6	Zinc	81		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7429-90-5	Aluminum	13000		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-36-0	Antimony	0.35		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-38-2	Arsenic	33		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-39-3	Barium	120		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-41-7	Beryllium	0.93		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-43-9	Cadmium	0.21		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-70-2	Calcium	2300		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-47-3	Chromium	75		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-48-4	Cobalt	18		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-50-8	Copper	74		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7439-89-6	Iron	16000		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7439-89-6	Iron	15000		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7439-92-1	Lead	14		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7439-95-4	Magnesium	9600		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7439-96-5	Manganese	240		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7439-97-6	Mercury	0.064		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-02-0	Nickel	110		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	STL00204	pH	6.97		SU
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	9/7/7440	Potassium	2000		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7782-49-2	Selenium	0.81		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-22-4	Silver	0.08	T	mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-23-5	Sodium	94	T	mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-28-0	Thallium	0.23	T	mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	75-01-4	Vanadium	14		mg/Kg
Area 5	MC-HC-03	7/12/2011	0	6	in	Weden 2 S1 (0-6)	No	7440-66-6	Zinc	31		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	9/7/7440	Potassium	3000		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-70-2	Calcium	490	J	mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7439-95-4	Magnesium	2200		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7439-89-6	Iron	61000		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	9/7/7440	Potassium	150	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-70-2	Calcium	200		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7439-89-6	Iron	15000		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7439-95-4	Magnesium	320		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	9/7/7440	Potassium	110	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-70-2	Calcium	200		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7439-89-6	Iron	8900		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7439-95-4	Magnesium	160		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	9/7/7440	Potassium	71	T	mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-70-2	Calcium	610		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7439-89-6	Iron	12000		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7439-95-4	Magnesium	260		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	9/7/7440	Potassium	94	T	mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-70-2	Calcium	790		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7439-89-6	Iron	13000		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7439-95-4	Magnesium	290		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	9/7/7440	Potassium	1100		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-70-2	Calcium	2400		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7439-95-4	Magnesium	3600		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7439-89-6	Iron	54000		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	9/7/7440	Potassium	1700		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-70-2	Calcium	2200		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7439-95-4	Magnesium	4300		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7439-89-6	Iron	48000		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	9/7/7440	Potassium	1800		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-70-2	Calcium	620		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7439-95-4	Magnesium	1400		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7439-89-6	Iron	51000		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	9/7/7440	Potassium	1500		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-70-2	Calcium	560		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7439-95-4	Magnesium	1500		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7439-89-6	Iron	51000		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7439-96-5	Manganese	44		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7429-90-5	Aluminum	26000		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-36-0	Antimony	0.43		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-38-2	Arsenic	42		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-41-7	Beryllium	0.23		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-43-9	Cadmium	0.12	T	mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-47-3	Chromium	9.2		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-50-8	Copper	630		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7439-92-1	Lead	60		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-02-0	Nickel	2		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7782-49-2	Selenium	0.79		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-22-4	Silver	1.2		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-28-0	Thallium	0.13	U	mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-66-6	Zinc	20		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-36-0	Antimony	3.6	J	mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-41-7	Beryllium	0.044	U	mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-43-9	Cadmium	0.065	T	mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-47-3	Chromium	1.6		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-50-8	Copper	410		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7439-92-1	Lead	380		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7439-96-5	Manganese	110		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-02-0	Nickel	1.7		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7782-49-2	Selenium	1.8		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-22-4	Silver	28		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-28-0	Thallium	0.26	U	mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-66-6	Zinc	34	J	mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7429-90-5	Aluminum	3300		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-39-3	Barium	93		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-48-4	Cobalt	4.3		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-23-5	Sodium	170	JT	mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	75-01-4	Vanadium	29	J	mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7440-38-2	Arsenic	4900		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7429-90-5	Aluminum	8900		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-36-0	Antimony	0.94		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-38-2	Arsenic	110		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-41-7	Beryllium	0.11	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-43-9	Cadmium	0.09	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-47-3	Chromium	3.9		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-50-8	Copper	1100		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7439-92-1	Lead	330		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-02-0	Nickel	1.3		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7782-49-2	Selenium	0.58	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-22-4	Silver	4.2		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-28-0	Thallium	0.14	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-66-6	Zinc	14		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-39-3	Barium	5.3		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-48-4	Cobalt	2		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7440-23-5	Sodium	130		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	75-01-4	Vanadium	29		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7439-96-5	Manganese	140		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7429-90-5	Aluminum	5800		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-36-0	Antimony	0.5		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-38-2	Arsenic	33		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-41-7	Beryllium	0.076	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-43-9	Cadmium	0.17	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-47-3	Chromium	3.4		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-50-8	Copper	890		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7439-92-1	Lead	140		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-02-0	Nickel	1.2		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7782-49-2	Selenium	0.36	T	mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-22-4	Silver	1.7		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-28-0	Thallium	0.15	U	mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-66-6	Zinc	23		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-39-3	Barium	4.2		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-48-4	Cobalt	1.3		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7440-23-5	Sodium	170		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	75-01-4	Vanadium	24		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7439-96-5	Manganese	59		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7429-90-5	Aluminum	14000		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-36-0	Antimony	0.32		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-38-2	Arsenic	30		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-41-7	Beryllium	0.12	T	mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-43-9	Cadmium	0.082	T	mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-47-3	Chromium	5.4		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-50-8	Copper	510		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7439-92-1	Lead	47		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-02-0	Nickel	1.2		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7782-49-2	Selenium	0.58	T	mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-22-4	Silver	0.84		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-28-0	Thallium	0.12	U	mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-66-6	Zinc	14		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-39-3	Barium	3.1		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-48-4	Cobalt	1.7		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7440-23-5	Sodium	230		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	75-01-4	Vanadium	23		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-39-3	Barium	6.3		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-48-4	Cobalt	1.5		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7440-23-5	Sodium	290		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	75-01-4	Vanadium	28		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7439-96-5	Manganese	40		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7429-90-5	Aluminum	27000		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-36-0	Antimony	30		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-41-7	Beryllium	0.6		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-43-9	Cadmium	3.6		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-47-3	Chromium	8.1		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-50-8	Copper	120		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7439-92-1	Lead	99		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-02-0	Nickel	6.9		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7782-49-2	Selenium	1.4		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-22-4	Silver	0.97		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-28-0	Thallium	5.5		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-39-3	Barium	79		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-48-4	Cobalt	23		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-23-5	Sodium	200		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	75-01-4	Vanadium	77		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-38-2	Arsenic	4900		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7439-96-5	Manganese	5600		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7440-66-6	Zinc	460		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7429-90-5	Aluminum	24000		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-36-0	Antimony	17		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-41-7	Beryllium	0.54		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-43-9	Cadmium	4.2		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-47-3	Chromium	7.5		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-50-8	Copper	130		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7439-92-1	Lead	68		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-02-0	Nickel	8		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7782-49-2	Selenium	1.3		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-22-4	Silver	1.2		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-28-0	Thallium	7.3		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-39-3	Barium	130		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-48-4	Cobalt	23		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-23-5	Sodium	200		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	75-01-4	Vanadium	84		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-38-2	Arsenic	2800		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7439-96-5	Manganese	16000		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7440-66-6	Zinc	540		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7429-90-5	Aluminum	7500		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-36-0	Antimony	58		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-41-7	Beryllium	0.21		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-43-9	Cadmium	1.9		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-47-3	Chromium	4.8		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-50-8	Copper	150		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7439-92-1	Lead	170		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-02-0	Nickel	3		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7782-49-2	Selenium	1		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-22-4	Silver	2.3		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-28-0	Thallium	4		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-66-6	Zinc	220		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-39-3	Barium	51		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-48-4	Cobalt	21		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-23-5	Sodium	100		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	75-01-4	Vanadium	54		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7440-38-2	Arsenic	5400		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7439-96-5	Manganese	4600		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7429-90-5	Aluminum	8800		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-36-0	Antimony	58		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-41-7	Beryllium	0.2		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-43-9	Cadmium	2.1		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-47-3	Chromium	4.5		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-50-8	Copper	170		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7439-92-1	Lead	170		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-02-0	Nickel	3.5		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7782-49-2	Selenium	1.1		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-22-4	Silver	2.7		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-28-0	Thallium	5		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-66-6	Zinc	230		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-39-3	Barium	51		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-48-4	Cobalt	24		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-23-5	Sodium	100		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	75-01-4	Vanadium	57		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7440-38-2	Arsenic	7800		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7439-96-5	Manganese	6200		mg/Kg
Area 3	MC-HC-20	8/26/2011	0	6	in	Potomac 1	No	7439-97-6	Mercury	0.5		mg/Kg
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	7439-97-6	Mercury	0.12		mg/Kg
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	7439-97-6	Mercury	0.069		mg/Kg
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	7439-97-6	Mercury	0.069		mg/Kg
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	7439-97-6	Mercury	0.086		mg/Kg
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	7439-97-6	Mercury	0.74		mg/Kg
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	7439-97-6	Mercury	0.39		mg/Kg
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	7439-97-6	Mercury	0.92		mg/Kg
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	7439-97-6	Mercury	0.82		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 3	MC-HC-21	8/26/2011	0	6	in	Potomac 2 (0-6)	No	STL00204	pH	4.86	J	SU
Area 3	MC-HC-21	8/26/2011	6	12	in	Potomac 2 (6-12)	No	STL00204	pH	5.02	J	SU
Area 3	MC-HC-22	8/26/2011	0	6	in	Potomac 3 (0-6)	No	STL00204	pH	5.08	J	SU
Area 3	MC-HC-22	8/26/2011	6	12	in	Potomac 3 (6-12)	No	STL00204	pH	4.98	J	SU
Area 3	MC-HC-18	8/26/2011	0	6	in	IXL 1 (0-6)	No	STL00204	pH	5.61	J	SU
Area 3	MC-HC-18	8/26/2011	6	12	in	IXL 1 (6-12)	No	STL00204	pH	5.76	J	SU
Area 3	MC-HC-19	8/26/2011	0	6	in	IXL 2 (0-6)	No	STL00204	pH	4.85	J	SU
Area 3	MC-HC-19	8/26/2011	6	12	in	IXL 2 (6-12)	No	STL00204	pH	4.71	J	SU
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	9/7/7440	Potassium	400		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-70-2	Calcium	1000		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7439-95-4	Magnesium	440		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7439-89-6	Iron	70000		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	9/7/7440	Potassium	660		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-70-2	Calcium	5600		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7439-95-4	Magnesium	3600		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7439-89-6	Iron	87000		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	9/7/7440	Potassium	870		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-70-2	Calcium	1100		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7439-95-4	Magnesium	590		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7439-89-6	Iron	74000		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	9/7/7440	Potassium	2100		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-70-2	Calcium	3100		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7439-95-4	Magnesium	6400		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7439-89-6	Iron	69000		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	9/7/7440	Potassium	1800		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-70-2	Calcium	1300		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7439-95-4	Magnesium	6200		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7439-89-6	Iron	57000		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	9/7/7440	Potassium	1100		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-70-2	Calcium	680		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7439-95-4	Magnesium	6600		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7439-89-6	Iron	75000		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	9/7/7440	Potassium	900		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-70-2	Calcium	1700		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7439-95-4	Magnesium	4600		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7439-89-6	Iron	72000		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	9/7/7440	Potassium	1400		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-70-2	Calcium	710		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7439-95-4	Magnesium	6500		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7439-89-6	Iron	76000		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7429-90-5	Aluminum	1200		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-36-0	Antimony	300		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-41-7	Beryllium	0.18	T	mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-43-9	Cadmium	10		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-47-3	Chromium	0.74		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-50-8	Copper	160		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7439-92-1	Lead	1000		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-02-0	Nickel	3.1		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7782-49-2	Selenium	0.33	T	mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-22-4	Silver	12		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-28-0	Thallium	0.45	T	mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-66-6	Zinc	1800		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-23-5	Sodium	38	U	mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-39-3	Barium	12		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	75-01-4	Vanadium	12	J	mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-48-4	Cobalt	15		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7440-38-2	Arsenic	8600		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7439-96-5	Manganese	4800		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7429-90-5	Aluminum	11000		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-36-0	Antimony	220		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-41-7	Beryllium	0.35		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-43-9	Cadmium	31		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-47-3	Chromium	15		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-50-8	Copper	410		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7439-92-1	Lead	1700		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7439-96-5	Manganese	2800		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-02-0	Nickel	12		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7782-49-2	Selenium	2.3		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-22-4	Silver	29		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-28-0	Thallium	0.26	T	mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-23-5	Sodium	99	T	mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-39-3	Barium	33		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	75-01-4	Vanadium	99		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-48-4	Cobalt	21		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-38-2	Arsenic	11000		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7440-66-6	Zinc	4700		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7429-90-5	Aluminum	2400		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-36-0	Antimony	160		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-41-7	Beryllium	0.3		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-43-9	Cadmium	16		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-47-3	Chromium	1.2		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-50-8	Copper	170		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7439-92-1	Lead	830		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-02-0	Nickel	5.6		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7782-49-2	Selenium	0.58	T	mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-22-4	Silver	8.2		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-28-0	Thallium	0.56		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-66-6	Zinc	2200		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-23-5	Sodium	42	U	mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-39-3	Barium	21		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	75-01-4	Vanadium	14		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-48-4	Cobalt	17		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7440-38-2	Arsenic	10000		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7439-96-5	Manganese	5600		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7429-90-5	Aluminum	15000		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-36-0	Antimony	17		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-41-7	Beryllium	0.49		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-43-9	Cadmium	15		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-47-3	Chromium	14		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-50-8	Copper	170		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-02-0	Nickel	24		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7782-49-2	Selenium	1.8		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-22-4	Silver	20		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-28-0	Thallium	0.36	T	mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-23-5	Sodium	240		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-39-3	Barium	73		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	75-01-4	Vanadium	39		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-48-4	Cobalt	26		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-38-2	Arsenic	5100		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7439-92-1	Lead	3600		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7439-96-5	Manganese	4600		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7440-66-6	Zinc	2600		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7429-90-5	Aluminum	22000		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-36-0	Antimony	6		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-38-2	Arsenic	2600		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-41-7	Beryllium	0.6		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-43-9	Cadmium	7.7		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-47-3	Chromium	14		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-50-8	Copper	110		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7439-92-1	Lead	1300		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-02-0	Nickel	20		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7782-49-2	Selenium	1.6		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-22-4	Silver	5.1		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-28-0	Thallium	0.36	T	mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-66-6	Zinc	1200		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-23-5	Sodium	130		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-39-3	Barium	52		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	75-01-4	Vanadium	51		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7440-48-4	Cobalt	32		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7439-96-5	Manganese	5900		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7429-90-5	Aluminum	12000		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-36-0	Antimony	3.4		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-38-2	Arsenic	2200		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-41-7	Beryllium	0.27		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-43-9	Cadmium	2.8		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-47-3	Chromium	15		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-50-8	Copper	140		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7439-92-1	Lead	870		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7439-96-5	Manganese	2100		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-02-0	Nickel	19		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7782-49-2	Selenium	0.99		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-22-4	Silver	7.6		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-28-0	Thallium	0.19	T	mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-66-6	Zinc	1500		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-23-5	Sodium	42	T	mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-39-3	Barium	31		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	75-01-4	Vanadium	33		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7440-48-4	Cobalt	13		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7429-90-5	Aluminum	21000		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-36-0	Antimony	5.9		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-41-7	Beryllium	0.63		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-43-9	Cadmium	17		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-47-3	Chromium	15		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-50-8	Copper	290		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7439-92-1	Lead	1400		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-02-0	Nickel	21		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7782-49-2	Selenium	1.6		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-22-4	Silver	11		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-28-0	Thallium	0.26	T	mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-66-6	Zinc	2100		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-23-5	Sodium	87	T	mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-39-3	Barium	57		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	75-01-4	Vanadium	50		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-48-4	Cobalt	44		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7440-38-2	Arsenic	2800		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7439-96-5	Manganese	5400		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7429-90-5	Aluminum	12000		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-36-0	Antimony	3.8		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-41-7	Beryllium	0.26		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-43-9	Cadmium	1.5		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-47-3	Chromium	18		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-50-8	Copper	140		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7439-92-1	Lead	860		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7439-96-5	Manganese	1900		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-02-0	Nickel	18		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7782-49-2	Selenium	0.88		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-22-4	Silver	5.8		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-28-0	Thallium	0.17	T	mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-66-6	Zinc	1300		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-23-5	Sodium	42	T	mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-39-3	Barium	37		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	75-01-4	Vanadium	34		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-48-4	Cobalt	13		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7440-38-2	Arsenic	2400		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	7439-97-6	Mercury	1.2		mg/Kg
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	7439-97-6	Mercury	1.2		mg/Kg
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	7439-97-6	Mercury	1		mg/Kg
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	7439-97-6	Mercury	0.33		mg/Kg
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	7439-97-6	Mercury	0.3		mg/Kg
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	7439-97-6	Mercury	0.56		mg/Kg
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	7439-97-6	Mercury	0.49		mg/Kg
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	7439-97-6	Mercury	0.51		mg/Kg
Area 4	MC-HC-35	9/13/2011	0	6	in	76 S-2 0-6	No	STL00204	pH	7.3	J	SU
Area 4	MC-HC-34	9/13/2011	0	6	in	76 S-1 0-6	No	STL00204	pH	6.46	J	SU
Area 4	MC-HC-35	9/13/2011	6	12	in	76 S-2 6-12	No	STL00204	pH	5.68	J	SU
Area 4	MC-HC-46	9/15/2011	0	6	in	74 S-2 0-6	No	STL00204	pH	5.7	J	SU
Area 4	MC-HC-45	9/15/2011	0	6	in	74 S-1 0-6	No	STL00204	pH	5.44	J	SU
Area 4	MC-HC-50	9/15/2011	6	12	in	Emma 2 S-2 6-12	No	STL00204	pH	4.67	J	SU
Area 4	MC-HC-49	9/15/2011	0	6	in	Emma 2 S-1 0-6	No	STL00204	pH	5.62	J	SU
Area 4	MC-HC-50	9/15/2011	0	6	in	Emma 2 S-2 0-6	No	STL00204	pH	4.5	J	SU
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-70-2	Calcium	580		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7439-95-4	Magnesium	3200		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	9/7/7440	Potassium	640		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7439-92-1	Lead	59		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-02-0	Nickel	2.7		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7782-49-2	Selenium	1.5		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-22-4	Silver	0.47		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-23-5	Sodium	76	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-28-0	Thallium	0.37	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	75-01-4	Vanadium	46		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-66-6	Zinc	34		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-36-0	Antimony	1.3	J	mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-38-2	Arsenic	710	J	mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7439-96-5	Manganese	120		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7429-90-5	Aluminum	14000		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-39-3	Barium	29		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-41-7	Beryllium	0.08	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-43-9	Cadmium	0.092	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-47-3	Chromium	6.7		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-48-4	Cobalt	8		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-50-8	Copper	320		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7439-92-1	Lead	26		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-02-0	Nickel	2.9		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7782-49-2	Selenium	1.4		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-22-4	Silver	0.58		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-23-5	Sodium	92	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-28-0	Thallium	0.47	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	75-01-4	Vanadium	59		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-66-6	Zinc	39		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-36-0	Antimony	1.4		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-38-2	Arsenic	990		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7439-96-5	Manganese	190		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7429-90-5	Aluminum	7200		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-39-3	Barium	64		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-41-7	Beryllium	0.079	T	mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-43-9	Cadmium	0.35		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-47-3	Chromium	5.3		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-48-4	Cobalt	9		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7439-89-6	Iron	130000		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-70-2	Calcium	300		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7439-95-4	Magnesium	3400		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	9/7/7440	Potassium	1700		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7439-89-6	Iron	81000		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-70-2	Calcium	670		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7439-95-4	Magnesium	2200		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	9/7/7440	Potassium	740		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7439-89-6	Iron	96000		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-70-2	Calcium	4700		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7439-95-4	Magnesium	2800		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	9/7/7440	Potassium	860		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7439-89-6	Iron	57000		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-70-2	Calcium	4700		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7439-95-4	Magnesium	3000		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	9/7/7440	Potassium	950		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7439-89-6	Iron	57000		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-70-2	Calcium	1900		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7439-95-4	Magnesium	4700		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	9/7/7440	Potassium	1300		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7439-89-6	Iron	56000		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-70-2	Calcium	1900		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7439-95-4	Magnesium	5100		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	9/7/7440	Potassium	1000		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7439-89-6	Iron	63000		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-70-2	Calcium	3100		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7439-95-4	Magnesium	5100		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	9/7/7440	Potassium	820	J	mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7439-89-6	Iron	21000		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-70-2	Calcium	1400		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7439-95-4	Magnesium	3400		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	9/7/7440	Potassium	1100		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7439-89-6	Iron	41000		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-70-2	Calcium	1800		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7439-95-4	Magnesium	3800		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	9/7/7440	Potassium	1300		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7439-89-6	Iron	42000		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-70-2	Calcium	3700		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7439-95-4	Magnesium	5300		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	9/7/7440	Potassium	840		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7439-89-6	Iron	21000		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7429-90-5	Aluminum	14000		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-39-3	Barium	25		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-41-7	Beryllium	0.082	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-43-9	Cadmium	0.11	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-47-3	Chromium	6.2		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-48-4	Cobalt	4.2		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-50-8	Copper	360		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-50-8	Copper	590		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7439-92-1	Lead	16		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-02-0	Nickel	1.9		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7782-49-2	Selenium	25		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-22-4	Silver	5.7		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-23-5	Sodium	100		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-28-0	Thallium	0.37	T	mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	75-01-4	Vanadium	48		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-66-6	Zinc	68		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-36-0	Antimony	20		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7439-96-5	Manganese	290		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-38-2	Arsenic	31000		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7429-90-5	Aluminum	8800		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-39-3	Barium	52		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-41-7	Beryllium	0.084	T	mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-43-9	Cadmium	0.41		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-47-3	Chromium	6.9		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-48-4	Cobalt	29		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-50-8	Copper	430		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7439-92-1	Lead	34		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-02-0	Nickel	1.9		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7782-49-2	Selenium	16		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-22-4	Silver	4.2		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-23-5	Sodium	78	T	mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-28-0	Thallium	0.37	T	mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	75-01-4	Vanadium	63		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-66-6	Zinc	60		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-36-0	Antimony	19		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-38-2	Arsenic	20000		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7439-96-5	Manganese	320		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7429-90-5	Aluminum	5700		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-39-3	Barium	31		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-41-7	Beryllium	0.041	T	mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7440-70-2	Calcium	450		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7439-95-4	Magnesium	3100		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	9/7/7440	Potassium	1100		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7439-89-6	Iron	33000		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7440-70-2	Calcium	440		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7439-95-4	Magnesium	4400		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	9/7/7440	Potassium	1400		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7439-89-6	Iron	42000		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7440-70-2	Calcium	660		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7439-95-4	Magnesium	3900		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	9/7/7440	Potassium	2100		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7439-89-6	Iron	100000		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7440-70-2	Calcium	520		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7439-95-4	Magnesium	4500		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	9/7/7440	Potassium	1800		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7439-89-6	Iron	83000		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-70-2	Calcium	570		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7439-95-4	Magnesium	3800		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	9/7/7440	Potassium	1200		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7439-89-6	Iron	75000		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-70-2	Calcium	630		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7439-95-4	Magnesium	3000		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	9/7/7440	Potassium	1200		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7439-89-6	Iron	78000		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-70-2	Calcium	4200		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7439-95-4	Magnesium	2000		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	9/7/7440	Potassium	490		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7439-89-6	Iron	85000		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-70-2	Calcium	240		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7439-95-4	Magnesium	420		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	9/7/7440	Potassium	88	T	mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7439-89-6	Iron	11000		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-70-2	Calcium	460		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7439-95-4	Magnesium	200		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	9/7/7440	Potassium	330		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7439-89-6	Iron	150000		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-70-2	Calcium	2300		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7439-95-4	Magnesium	1100		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	9/7/7440	Potassium	130	T	mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7439-89-6	Iron	200000		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-43-9	Cadmium	0.086	T	mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-47-3	Chromium	4.8		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-48-4	Cobalt	5		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-50-8	Copper	280		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7439-92-1	Lead	13		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-02-0	Nickel	1.5		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7782-49-2	Selenium	6.6		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-22-4	Silver	2.9		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-23-5	Sodium	86	T	mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-28-0	Thallium	0.17	T	mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	75-01-4	Vanadium	44		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-66-6	Zinc	31		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-36-0	Antimony	3.2		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7440-38-2	Arsenic	5100		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7439-96-5	Manganese	220		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7429-90-5	Aluminum	6100		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-39-3	Barium	28		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-41-7	Beryllium	0.054	T	mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-43-9	Cadmium	0.15	T	mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-47-3	Chromium	6.8		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-48-4	Cobalt	7.1		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-50-8	Copper	700		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7439-92-1	Lead	21		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-02-0	Nickel	1.5		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7782-49-2	Selenium	8.7		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-22-4	Silver	2.9		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-23-5	Sodium	85	T	mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-28-0	Thallium	0.24	T	mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	75-01-4	Vanadium	38		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-66-6	Zinc	31		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-36-0	Antimony	4.3		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7440-38-2	Arsenic	6700		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7439-96-5	Manganese	220		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7429-90-5	Aluminum	5000		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-39-3	Barium	51		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-41-7	Beryllium	0.57		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-43-9	Cadmium	5		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-47-3	Chromium	3.3		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-48-4	Cobalt	26		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-50-8	Copper	56		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7439-92-1	Lead	360		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-02-0	Nickel	2.7		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7782-49-2	Selenium	1.1		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-22-4	Silver	9.2		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-23-5	Sodium	72	T	mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-28-0	Thallium	0.93		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	75-01-4	Vanadium	82		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-66-6	Zinc	510		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-36-0	Antimony	110		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7440-38-2	Arsenic	4600		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7439-96-5	Manganese	10000		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7429-90-5	Aluminum	5500		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-39-3	Barium	7		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-41-7	Beryllium	0.06	T	mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-43-9	Cadmium	0.2		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-47-3	Chromium	2.5		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-48-4	Cobalt	1.7		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-50-8	Copper	4.1		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7439-92-1	Lead	18		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-02-0	Nickel	1.3		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7782-49-2	Selenium	0.29	T	mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-22-4	Silver	0.52		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-23-5	Sodium	61	T	mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-28-0	Thallium	0.11	U	mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	75-01-4	Vanadium	33		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-66-6	Zinc	22		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-36-0	Antimony	3.9		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7440-38-2	Arsenic	89		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7439-96-5	Manganese	170		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7429-90-5	Aluminum	2600		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-39-3	Barium	17		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-41-7	Beryllium	0.069	T	mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-43-9	Cadmium	0.53		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-47-3	Chromium	1.7		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-48-4	Cobalt	78		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-50-8	Copper	1700		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7439-92-1	Lead	1000		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-02-0	Nickel	9.2		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7782-49-2	Selenium	2.5		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-22-4	Silver	70		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-23-5	Sodium	39	U	mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-28-0	Thallium	0.15	T	mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	75-01-4	Vanadium	13		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-66-6	Zinc	140		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-36-0	Antimony	28		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7439-96-5	Manganese	320		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7440-38-2	Arsenic	52000		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7429-90-5	Aluminum	6700		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-39-3	Barium	110		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-41-7	Beryllium	0.21		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-43-9	Cadmium	2		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-47-3	Chromium	5.3		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-48-4	Cobalt	66		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-50-8	Copper	910		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7439-92-1	Lead	400		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-02-0	Nickel	18		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7782-49-2	Selenium	2		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-22-4	Silver	31		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-23-5	Sodium	37	U	mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-28-0	Thallium	0.12	U	mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	75-01-4	Vanadium	19		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-66-6	Zinc	420		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-36-0	Antimony	11		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7439-96-5	Manganese	2100		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7440-38-2	Arsenic	32000		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7429-90-5	Aluminum	12000		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-39-3	Barium	59		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-41-7	Beryllium	0.094	T	mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-43-9	Cadmium	0.54		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-47-3	Chromium	4.5		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-48-4	Cobalt	24		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-50-8	Copper	520		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7439-92-1	Lead	1200		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-02-0	Nickel	6.9		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7782-49-2	Selenium	0.93		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-22-4	Silver	34		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-23-5	Sodium	33	U	mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-28-0	Thallium	0.16	T	mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	75-01-4	Vanadium	23		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-66-6	Zinc	120		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-36-0	Antimony	12		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7439-96-5	Manganese	1200		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7440-38-2	Arsenic	20000		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7429-90-5	Aluminum	13000		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-39-3	Barium	85		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-41-7	Beryllium	0.11	T	mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-43-9	Cadmium	0.7		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-47-3	Chromium	4.7		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-48-4	Cobalt	6.3		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-50-8	Copper	190		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7439-92-1	Lead	970		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-02-0	Nickel	8.1		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7782-49-2	Selenium	0.55	T	mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-22-4	Silver	8.4		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-23-5	Sodium	66	T	mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-28-0	Thallium	0.28	T	mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	75-01-4	Vanadium	17		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-66-6	Zinc	150		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-36-0	Antimony	2		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7440-38-2	Arsenic	4200		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7439-96-5	Manganese	1100		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7429-90-5	Aluminum	7200		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-39-3	Barium	29		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-41-7	Beryllium	0.19		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-43-9	Cadmium	0.95		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-47-3	Chromium	3.6		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-48-4	Cobalt	44		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-50-8	Copper	340		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7439-92-1	Lead	640		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-02-0	Nickel	10		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7782-49-2	Selenium	1.8		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-22-4	Silver	39		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-23-5	Sodium	33	U	mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-28-0	Thallium	0.18	T	mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	75-01-4	Vanadium	13		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-66-6	Zinc	150		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-36-0	Antimony	24		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7439-96-5	Manganese	1400		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7440-38-2	Arsenic	32000		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7429-90-5	Aluminum	11000		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-39-3	Barium	31		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-41-7	Beryllium	0.5		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-43-9	Cadmium	12		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-47-3	Chromium	5.6		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-48-4	Cobalt	24		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-50-8	Copper	150		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7439-92-1	Lead	1100		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-02-0	Nickel	21		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7782-49-2	Selenium	1.3		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-22-4	Silver	6.9		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-23-5	Sodium	50	T	mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-28-0	Thallium	0.35	T	mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	75-01-4	Vanadium	32		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-66-6	Zinc	1500		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-36-0	Antimony	30		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7440-38-2	Arsenic	2200		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7439-96-5	Manganese	5400		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7429-90-5	Aluminum	10000		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-39-3	Barium	29		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-41-7	Beryllium	0.45		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-43-9	Cadmium	9.1		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-47-3	Chromium	5.8		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-48-4	Cobalt	23		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-50-8	Copper	150		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-02-0	Nickel	17		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7782-49-2	Selenium	1.4		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-22-4	Silver	16		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-23-5	Sodium	56	T	mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-28-0	Thallium	0.35	T	mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	75-01-4	Vanadium	31		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-66-6	Zinc	1500		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-36-0	Antimony	34		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7440-38-2	Arsenic	2900		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7439-92-1	Lead	3400		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7439-96-5	Manganese	4500		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7429-90-5	Aluminum	9100		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-39-3	Barium	50	J	mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-41-7	Beryllium	0.2		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-43-9	Cadmium	9.6	J	mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-47-3	Chromium	9.5		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-48-4	Cobalt	36		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-50-8	Copper	230		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7439-92-1	Lead	430		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-02-0	Nickel	9.7		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7782-49-2	Selenium	0.52	T	mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-22-4	Silver	3.9		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-23-5	Sodium	350		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-28-0	Thallium	0.38	T	mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	75-01-4	Vanadium	59		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-66-6	Zinc	830		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-36-0	Antimony	29	J	mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7440-38-2	Arsenic	1200		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7439-96-5	Manganese	9600		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7429-90-5	Aluminum	9100		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-39-3	Barium	46		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-41-7	Beryllium	0.25		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-43-9	Cadmium	16		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-47-3	Chromium	9.4		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-48-4	Cobalt	28		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-50-8	Copper	270		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7439-92-1	Lead	370		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-02-0	Nickel	10		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7782-49-2	Selenium	0.71		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-22-4	Silver	3.8		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-23-5	Sodium	270		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-28-0	Thallium	0.32	T	mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	75-01-4	Vanadium	58		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-66-6	Zinc	940		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-36-0	Antimony	32		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7440-38-2	Arsenic	900		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7439-96-5	Manganese	11000		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7429-90-5	Aluminum	14000		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-39-3	Barium	43		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-41-7	Beryllium	0.15	T	mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-43-9	Cadmium	2.4		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-47-3	Chromium	5.4		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-48-4	Cobalt	13		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-50-8	Copper	170		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7439-92-1	Lead	66		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-02-0	Nickel	7.1		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7782-49-2	Selenium	0.49	T	mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-22-4	Silver	0.66		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-23-5	Sodium	420		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-28-0	Thallium	0.12	T	mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	75-01-4	Vanadium	38		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-66-6	Zinc	670		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-36-0	Antimony	5		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7440-38-2	Arsenic	590		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7439-96-5	Manganese	1100		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7429-90-5	Aluminum	8000		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-39-3	Barium	35		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-41-7	Beryllium	0.36		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-43-9	Cadmium	4.3		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-47-3	Chromium	6.9		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-48-4	Cobalt	23		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-50-8	Copper	93		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7439-92-1	Lead	1000		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-02-0	Nickel	14		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7782-49-2	Selenium	1.1		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-22-4	Silver	10		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-23-5	Sodium	54	T	mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-28-0	Thallium	0.29	T	mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	75-01-4	Vanadium	29		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-66-6	Zinc	690		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-36-0	Antimony	28		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7440-38-2	Arsenic	1400		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7439-96-5	Manganese	3600		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7429-90-5	Aluminum	9100		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-39-3	Barium	38		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-41-7	Beryllium	0.37		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-43-9	Cadmium	4.7		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-47-3	Chromium	7.2		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-48-4	Cobalt	24		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-50-8	Copper	120		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7439-92-1	Lead	1200		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-02-0	Nickel	15		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7782-49-2	Selenium	1.2		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-22-4	Silver	6.2		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-23-5	Sodium	76	T	mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-28-0	Thallium	0.3	T	mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	75-01-4	Vanadium	32		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-66-6	Zinc	820		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-36-0	Antimony	48		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7440-38-2	Arsenic	1400		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7439-96-5	Manganese	3600		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7429-90-5	Aluminum	16000		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-39-3	Barium	40		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-41-7	Beryllium	0.17	T	mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-43-9	Cadmium	2.4		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-47-3	Chromium	6.1		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-48-4	Cobalt	15		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-50-8	Copper	180		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7439-92-1	Lead	68		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-02-0	Nickel	7.5		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7782-49-2	Selenium	0.56	T	mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-22-4	Silver	0.69		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-23-5	Sodium	480		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-28-0	Thallium	0.12	T	mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	75-01-4	Vanadium	42		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-66-6	Zinc	650		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-36-0	Antimony	3.6		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7440-38-2	Arsenic	520		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7439-96-5	Manganese	810		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	7439-97-6	Mercury	0.28		mg/Kg
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	7439-97-6	Mercury	0.18		mg/Kg
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	7439-97-6	Mercury	0.88		mg/Kg
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	7439-97-6	Mercury	0.7		mg/Kg
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	7439-97-6	Mercury	0.095		mg/Kg
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	7439-97-6	Mercury	0.23		mg/Kg
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	7439-97-6	Mercury	0.9		mg/Kg
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	7439-97-6	Mercury	0.054		mg/Kg
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	7439-97-6	Mercury	0.43		mg/Kg
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	7439-97-6	Mercury	0.67		mg/Kg
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	7439-97-6	Mercury	1		mg/Kg
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	7439-97-6	Mercury	1		mg/Kg
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	7439-97-6	Mercury	0.57		mg/Kg
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	7439-97-6	Mercury	0.32		mg/Kg
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	7439-97-6	Mercury	0.73		mg/Kg
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	7439-97-6	Mercury	1.2		mg/Kg
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	7439-97-6	Mercury	0.098		mg/Kg
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	7439-97-6	Mercury	0.14		mg/Kg
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	7439-97-6	Mercury	0.028		mg/Kg
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	7439-97-6	Mercury	0.028		mg/Kg
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	7439-97-6	Mercury	0.15		mg/Kg
Area 2	MC-HC-63	9/27/2011	0	6	in	PUSHER S-1 0-6	No	STL00204	pH	5.28	J	SU
Area 2	MC-HC-63	9/27/2011	6	12	in	PUSHER S-1 6-12	No	STL00204	pH	4.63	J	SU
Area 2	MC-HC-64	9/27/2011	0	6	in	PUSHER S-2 0-6	No	STL00204	pH	3.53	J	SU
Area 2	MC-HC-64	9/27/2011	6	12	in	PUSHER S-2 6-12	No	STL00204	pH	3.76	J	SU
Area 2	MC-HC-65	9/27/2011	0	6	in	PUSHER S-3 0-6	No	STL00204	pH	3.66	J	SU
Area 2	MC-HC-65	9/27/2011	6	12	in	PUSHER S-3 6-12	No	STL00204	pH	4.04	J	SU
Area 4	MC-HC-66	9/28/2011	0	6	in	IBEX S1 0-6	No	STL00204	pH	5.48	J	SU
Area 4	MC-HC-67	9/28/2011	0	6	in	IBEX S2 0-6	No	STL00204	pH	5.64	J	SU
Area 2	MC-HC-70	9/28/2011	0	6	in	O+B UPPER S1 0-6	No	STL00204	pH	3.09	J	SU
Area 2	MC-HC-71	9/28/2011	0	6	in	O+B UPPER S2 0-6	No	STL00204	pH	5.71	J	SU
Area 2	MC-HC-72	9/28/2011	0	6	in	O+B UPPER S3 0-6	No	STL00204	pH	2.89	J	SU
Area 2	MC-HC-68	9/28/2011	0	6	in	O+B LOWER S1 0-6	No	STL00204	pH	1.74	J	SU
Area 2	MC-HC-69	9/28/2011	0	6	in	O+B LOWER S2 0-6	No	STL00204	pH	4.14	J	SU
Area 4	MC-HC-75	9/29/2011	0	6	in	CONGRESS S1 0-6	No	STL00204	pH	5.39	J	SU
Area 4	MC-HC-75	9/29/2011	6	12	in	CONGRESS S1 6-12	No	STL00204	pH	5.66	J	SU
Area 3	MC-HC-77	9/29/2011	0	6	in	PORTLAND 2 S1 0-6	No	STL00204	pH	3.19	J	SU
Area 3	MC-HC-77	9/29/2011	6	12	in	PORTLAND 2 S1 6-12	No	STL00204	pH	4.79	J	SU
Area 3	MC-HC-78	9/29/2011	0	6	in	PORTLAND 2 S2 0-6	No	STL00204	pH	4.66	J	SU
Area 4	MC-HC-76	9/29/2011	0	6	in	CONGRESS S2 0-6	No	STL00204	pH	5.76	J	SU
Area 4	MC-HC-76	9/29/2011	6	12	in	CONGRESS S2 6-12	No	STL00204	pH	5.69	J	SU
Area 3	MC-HC-78	9/29/2011	6	12	in	PORTLAND 2 S2 6-12	No	STL00204	pH	6.13	J	SU
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7429-90-5	Aluminum	24900		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-36-0	Antimony	8.23	J	mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-38-2	Arsenic	700		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-39-3	Barium	58.8		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-41-7	Beryllium	0.28		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-43-9	Cadmium	1.13		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-70-2	Calcium	3620		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-47-3	Chromium	39.2		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-48-4	Cobalt	5.29		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-50-8	Copper	53.6		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7439-89-6	Iron	29700		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7439-92-1	Lead	52.3		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7439-95-4	Magnesium	5030		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7439-96-5	Manganese	403		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7439-97-6	Mercury	0.0583	J	mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-02-0	Nickel	15.9		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes		pH	3.97		pH
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-09-7	Potassium	1850		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7782-49-2	Selenium	0.7		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-22-4	Silver	0.54		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-23-5	Sodium	472		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-62-2	Vanadium	50.7		mg/kg
Area 2	MC-BKG-07	9/10/2005	0.5	0.5	FT	BKG-07-0.5	Yes	7440-66-6	Zinc	110		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7429-90-5	Aluminum	14800		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-36-0	Antimony	2.51	J	mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-38-2	Arsenic	23.3		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-39-3	Barium	9.74		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-41-7	Beryllium	0.2	U	mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-43-9	Cadmium	0.25		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-70-2	Calcium	797		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-47-3	Chromium	49.9		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-48-4	Cobalt	1.24		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-50-8	Copper	8.2		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7439-89-6	Iron	16200		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7439-92-1	Lead	14.6		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7439-95-4	Magnesium	395		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7439-96-5	Manganese	101		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7439-97-6	Mercury	0.033	UJ	mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-02-0	Nickel	7.2		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes		pH	4.21		pH
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-09-7	Potassium	250		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7782-49-2	Selenium	0.78		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-22-4	Silver	0.5	U	mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-23-5	Sodium	512		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-62-2	Vanadium	42.5		mg/kg
Area 3	MC-BKG-06	9/9/2005	0.5	0.5	FT	BKG-06-0.5	Yes	7440-66-6	Zinc	14.4		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7429-90-5	Aluminum	16900		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-36-0	Antimony	4.03	J	mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-38-2	Arsenic	110		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-39-3	Barium	24.4		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-41-7	Beryllium	0.2	U	mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-43-9	Cadmium	0.77		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-70-2	Calcium	2680		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-47-3	Chromium	42.7		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-48-4	Cobalt	13.3		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-50-8	Copper	18.5		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7439-89-6	Iron	33900		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7439-92-1	Lead	28.2		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7439-95-4	Magnesium	10800		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7439-96-5	Manganese	699		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7439-97-6	Mercury	0.177	J	mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-02-0	Nickel	21.2		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes		pH	4.19		pH
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-09-7	Potassium	1090		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7782-49-2	Selenium	0.6	U	mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-22-4	Silver	0.5	U	mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-23-5	Sodium	258		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-62-2	Vanadium	62.3		mg/kg
Area 4	MC-BKG-01	9/8/2005	0.5	0.5	FT	BKG-01-0.5	Yes	7440-66-6	Zinc	99.1		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7429-90-5	Aluminum	15500		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-36-0	Antimony	4.28	J	mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-38-2	Arsenic	127		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-39-3	Barium	70.7		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-41-7	Beryllium	0.3	U	mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-43-9	Cadmium	0.95		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-70-2	Calcium	2350		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-47-3	Chromium	40.9		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-48-4	Cobalt	16.1		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-50-8	Copper	78.7		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7439-89-6	Iron	35800		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7439-92-1	Lead	34.6		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7439-95-4	Magnesium	9020		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7439-96-5	Manganese	986		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7439-97-6	Mercury	0.0683	J	mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-02-0	Nickel	36.7		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes		pH	4.2		pH
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-09-7	Potassium	3290		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7782-49-2	Selenium	0.6	U	mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-22-4	Silver	0.5	U	mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-23-5	Sodium	240		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-62-2	Vanadium	56.5		mg/kg
Area 4	MC-BKG-02	9/8/2005	0.5	0.5	FT	BKG-02-0.5	Yes	7440-66-6	Zinc	132		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7429-90-5	Aluminum	7290		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-36-0	Antimony	1.65	J	mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-38-2	Arsenic	81.5		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-39-3	Barium	34.2		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-41-7	Beryllium	0.2	U	mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-43-9	Cadmium	0.39		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-70-2	Calcium	423		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-47-3	Chromium	53.2		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-48-4	Cobalt	2.33		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-50-8	Copper	19.7		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7439-89-6	Iron	22800		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7439-92-1	Lead	18.3		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7439-95-4	Magnesium	1150		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7439-96-5	Manganese	323		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7439-97-6	Mercury	0.0333	J	mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-02-0	Nickel	14.1		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes		pH	3.72		pH
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-09-7	Potassium	319		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7782-49-2	Selenium	0.6	U	mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-22-4	Silver	0.5	U	mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-23-5	Sodium	269		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-62-2	Vanadium	67.4		mg/kg
Area 2	MC-BKG-08	9/8/2005	0.5	0.5	FT	BKG-08-0.5	Yes	7440-66-6	Zinc	29.6		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7429-90-5	Aluminum	39000		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-36-0	Antimony	1.9	J	mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-38-2	Arsenic	78.9		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-39-3	Barium	83.1		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-41-7	Beryllium	0.49		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-43-9	Cadmium	0.73		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-70-2	Calcium	3930		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-47-3	Chromium	93.5		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-48-4	Cobalt	9.1		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-50-8	Copper	40.1		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7439-89-6	Iron	35500		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7439-92-1	Lead	21.5		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7439-95-4	Magnesium	11600		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7439-96-5	Manganese	466		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7439-97-6	Mercury	0.0583	J	mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-02-0	Nickel	38.6		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes		pH	4.81		pH
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-09-7	Potassium	2750		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7782-49-2	Selenium	6	U	mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-22-4	Silver	0.5	U	mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-23-5	Sodium	738		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-62-2	Vanadium	89		mg/kg
Area 2	MC-BKG-09	9/8/2005	0.5	0.5	FT	BKG-09-0.5	Yes	7440-66-6	Zinc	114		mg/kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7429-90-5	Aluminum	32000		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-36-0	Antimony	2.43	J	mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-38-2	Arsenic	64.5		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-39-3	Barium	12.1		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-41-7	Beryllium	0.2	U	mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-43-9	Cadmium	0.54		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-70-2	Calcium	925		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-47-3	Chromium	36		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-48-4	Cobalt	1.61		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-50-8	Copper	13.3		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7439-89-6	Iron	28100		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7439-92-1	Lead	32		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7439-95-4	Magnesium	723		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7439-96-5	Manganese	291		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7439-97-6	Mercury	0.147	J	mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-02-0	Nickel	10.2		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes		pH	4.08		pH
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-09-7	Potassium	354		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7782-49-2	Selenium	1.53		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-22-4	Silver	0.66		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-23-5	Sodium	320		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-62-2	Vanadium	77.4		mg/kg
Area 1	MC-BKG-10	9/8/2005	0.5	0.5	FT	BKG-10-0.5	Yes	7440-66-6	Zinc	30.6		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7429-90-5	Aluminum	9440		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-36-0	Antimony	2.39	J	mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-38-2	Arsenic	44.7		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-39-3	Barium	84.1		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-41-7	Beryllium	0.33		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-43-9	Cadmium	0.45		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-70-2	Calcium	1040		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-47-3	Chromium	42.8		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-48-4	Cobalt	9.35		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-50-8	Copper	16		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7439-89-6	Iron	27300		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7439-92-1	Lead	11.6		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7439-95-4	Magnesium	4920		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7439-96-5	Manganese	783		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7439-97-6	Mercury	0.72	J	mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-02-0	Nickel	33		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes		pH	4.39		pH
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-09-7	Potassium	1540		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7782-49-2	Selenium	0.6	U	mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-22-4	Silver	0.5	U	mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-23-5	Sodium	137		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-62-2	Vanadium	35.3		mg/kg
Area 3	MC-BKG-03	9/7/2005	0.5	0.5	FT	BKG-03-0.5	Yes	7440-66-6	Zinc	63.6		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7429-90-5	Aluminum	14000		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-36-0	Antimony	6.25	J	mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-38-2	Arsenic	69.9		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-39-3	Barium	65.8		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-41-7	Beryllium	0.21		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-43-9	Cadmium	0.61		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-70-2	Calcium	4710		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-47-3	Chromium	47.4		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-48-4	Cobalt	10.7		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-50-8	Copper	24.2		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7439-89-6	Iron	30400		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7439-92-1	Lead	11		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7439-95-4	Magnesium	8220		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7439-96-5	Manganese	1500		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7439-97-6	Mercury	0.773	J	mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-02-0	Nickel	22.9		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes		pH	5.43		pH
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-09-7	Potassium	1290		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7782-49-2	Selenium	0.6	U	mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-22-4	Silver	0.5	U	mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-23-5	Sodium	605		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-62-2	Vanadium	66.3		mg/kg
Area 3	MC-BKG-04	9/7/2005	0.5	0.5	FT	BKG-04-0.5	Yes	7440-66-6	Zinc	72.7		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7429-90-5	Aluminum	14000		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-36-0	Antimony	16.7	J	mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-38-2	Arsenic	74.8		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-39-3	Barium	40.2		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-41-7	Beryllium	0.2	U	mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-43-9	Cadmium	0.59		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-70-2	Calcium	3640		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-47-3	Chromium	48.9		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-48-4	Cobalt	9.24		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-50-8	Copper	22.4		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7439-89-6	Iron	27700		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7439-92-1	Lead	13.9		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7439-95-4	Magnesium	8310		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7439-96-5	Manganese	1010		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7439-97-6	Mercury	0.338	J	mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-02-0	Nickel	22.4		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes		pH	5		pH
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-09-7	Potassium	1280		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7782-49-2	Selenium	0.6	U	mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-22-4	Silver	0.5	U	mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-23-5	Sodium	568		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-28-0	Thallium	1.5	U	mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-62-2	Vanadium	70.4		mg/kg
Area 3	MC-BKG-05	9/7/2005	0.5	0.5	FT	BKG-05-0.5	Yes	7440-66-6	Zinc	75.5		mg/kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	9/7/7440	Potassium	290		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-70-2	Calcium	810		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7439-89-6	Iron	29000		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7439-95-4	Magnesium	3900		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	9/7/7440	Potassium	150	T	mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-70-2	Calcium	130		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7439-89-6	Iron	12000		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7439-95-4	Magnesium	340		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	9/7/7440	Potassium	250		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-70-2	Calcium	570		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7439-95-4	Magnesium	2400		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7439-89-6	Iron	37000		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	9/7/7440	Potassium	610		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-70-2	Calcium	1400		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7439-95-4	Magnesium	10000		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7439-89-6	Iron	46000		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	9/7/7440	Potassium	690		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-70-2	Calcium	840		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7439-95-4	Magnesium	22000		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7439-89-6	Iron	40000		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	9/7/7440	Potassium	270		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-70-2	Calcium	290		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7439-89-6	Iron	23000		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7439-95-4	Magnesium	3400		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	9/7/7440	Potassium	1400		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-70-2	Calcium	620		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7439-95-4	Magnesium	8600		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7439-89-6	Iron	36000		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	9/7/7440	Potassium	640		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-70-2	Calcium	1200		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7439-89-6	Iron	18000		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7439-95-4	Magnesium	3100		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	9/7/7440	Potassium	280		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-70-2	Calcium	380		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7439-89-6	Iron	5700		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7439-95-4	Magnesium	270		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	9/7/7440	Potassium	510		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-70-2	Calcium	540		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7439-95-4	Magnesium	2000		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7439-89-6	Iron	27000		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	9/7/7440	Potassium	350		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-70-2	Calcium	480		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7439-89-6	Iron	13000		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7439-95-4	Magnesium	1000		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	9/7/7440	Potassium	1200		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-70-2	Calcium	1500		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7439-95-4	Magnesium	17000		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7439-89-6	Iron	37000		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	9/7/7440	Potassium	200		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-70-2	Calcium	250		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7439-89-6	Iron	26000		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7439-95-4	Magnesium	1000		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	9/7/7440	Potassium	130	T	mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-70-2	Calcium	360		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7439-89-6	Iron	7200		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7439-95-4	Magnesium	200		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7429-90-5	Aluminum	28000		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-36-0	Antimony	0.27	J	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-38-2	Arsenic	12		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-41-7	Beryllium	0.26		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-43-9	Cadmium	0.22	T	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-47-3	Chromium	29	J	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-50-8	Copper	36	J	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7439-92-1	Lead	9.1		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7439-96-5	Manganese	190	J	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-02-0	Nickel	21		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7782-49-2	Selenium	0.72	T	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-22-4	Silver	0.21	T	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-28-0	Thallium	0.16	U	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-66-6	Zinc	39	J	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-39-3	Barium	38		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-48-4	Cobalt	7		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7440-23-5	Sodium	87	T	mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	75-01-4	Vanadium	74		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7429-90-5	Aluminum	6100		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-36-0	Antimony	0.17	T	mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-38-2	Arsenic	3.5		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-41-7	Beryllium	0.073	T	mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-43-9	Cadmium	0.092	T	mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-47-3	Chromium	8.6		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-50-8	Copper	11		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7439-92-1	Lead	5.8		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7439-96-5	Manganese	32		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-02-0	Nickel	3.9		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7782-49-2	Selenium	0.42	T	mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-22-4	Silver	0.13	T	mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-28-0	Thallium	0.17	U	mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-66-6	Zinc	19		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-39-3	Barium	9.1		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-48-4	Cobalt	1.7		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7440-23-5	Sodium	110	T	mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	75-01-4	Vanadium	29		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7429-90-5	Aluminum	23000		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-36-0	Antimony	0.27		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-38-2	Arsenic	8.5		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-41-7	Beryllium	0.35		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-43-9	Cadmium	0.16	T	mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-47-3	Chromium	27		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-50-8	Copper	24		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7439-92-1	Lead	10		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7439-96-5	Manganese	200		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-02-0	Nickel	16		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7782-49-2	Selenium	0.47	T	mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-22-4	Silver	0.15	T	mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-28-0	Thallium	0.15	T	mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-66-6	Zinc	40		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-39-3	Barium	53		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-48-4	Cobalt	6		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7440-23-5	Sodium	110		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	75-01-4	Vanadium	120		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7429-90-5	Aluminum	61000		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-36-0	Antimony	0.36		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-38-2	Arsenic	15		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-41-7	Beryllium	0.94		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-43-9	Cadmium	0.29		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-47-3	Chromium	64		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-50-8	Copper	77		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7439-92-1	Lead	12		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7439-96-5	Manganese	410		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-02-0	Nickel	71		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7782-49-2	Selenium	1.2		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-22-4	Silver	0.17	T	mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-28-0	Thallium	0.18	T	mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-66-6	Zinc	120		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-39-3	Barium	77		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-48-4	Cobalt	22		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7440-23-5	Sodium	80	T	mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	75-01-4	Vanadium	82		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7429-90-5	Aluminum	31000		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-36-0	Antimony	0.34		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-38-2	Arsenic	25		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-41-7	Beryllium	0.64		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-43-9	Cadmium	0.16	T	mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-47-3	Chromium	100		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-50-8	Copper	280		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7439-92-1	Lead	9.7		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7439-96-5	Manganese	530		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-02-0	Nickel	320		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7782-49-2	Selenium	0.7	T	mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-22-4	Silver	0.21		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-28-0	Thallium	0.25	T	mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-66-6	Zinc	89		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-39-3	Barium	77		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-48-4	Cobalt	28		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7440-23-5	Sodium	130		mg/Kg
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	75-01-4	Vanadium	64		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7429-90-5	Aluminum	19000		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-36-0	Antimony	0.26		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-38-2	Arsenic	11		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-41-7	Beryllium	0.14	T	mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-43-9	Cadmium	0.12	T	mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-47-3	Chromium	21		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-50-8	Copper	28		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7439-92-1	Lead	8.3		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7439-96-5	Manganese	110		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-02-0	Nickel	19		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7782-49-2	Selenium	0.5	T	mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-22-4	Silver	0.11	T	mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-28-0	Thallium	0.12	U	mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-66-6	Zinc	32		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-39-3	Barium	19		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-48-4	Cobalt	5.5		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7440-23-5	Sodium	72	T	mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	75-01-4	Vanadium	47		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7429-90-5	Aluminum	34000		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-36-0	Antimony	1.3		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-38-2	Arsenic	110		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-41-7	Beryllium	0.87		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-43-9	Cadmium	0.33		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-47-3	Chromium	77		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-50-8	Copper	400		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7439-92-1	Lead	43		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7439-96-5	Manganese	470		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-02-0	Nickel	81		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7782-49-2	Selenium	1.7		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-22-4	Silver	0.49		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-28-0	Thallium	0.27	T	mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-66-6	Zinc	120		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-39-3	Barium	51		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-48-4	Cobalt	31		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7440-23-5	Sodium	170		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	75-01-4	Vanadium	80		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7429-90-5	Aluminum	23000		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-36-0	Antimony	1.4		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-38-2	Arsenic	60		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-41-7	Beryllium	0.4		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-43-9	Cadmium	0.44		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-47-3	Chromium	40		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-50-8	Copper	88		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7439-92-1	Lead	32		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7439-96-5	Manganese	1700		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-02-0	Nickel	31		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7782-49-2	Selenium	0.92		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-22-4	Silver	0.52		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-28-0	Thallium	0.21	T	mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-66-6	Zinc	75		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-39-3	Barium	66		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-48-4	Cobalt	8.8		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7440-23-5	Sodium	120		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	75-01-4	Vanadium	46		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7429-90-5	Aluminum	4200		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-36-0	Antimony	0.26		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-38-2	Arsenic	6.2		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-41-7	Beryllium	0.077	T	mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-43-9	Cadmium	0.057	T	mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-47-3	Chromium	6.7		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-50-8	Copper	13		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7439-92-1	Lead	9.3		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7439-96-5	Manganese	94		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-02-0	Nickel	4.1		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7782-49-2	Selenium	0.33	T	mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-22-4	Silver	0.56		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-28-0	Thallium	0.13	U	mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-66-6	Zinc	15		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-39-3	Barium	19		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-48-4	Cobalt	2		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7440-23-5	Sodium	110		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	75-01-4	Vanadium	24		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7429-90-5	Aluminum	11000		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-36-0	Antimony	0.37		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-38-2	Arsenic	19		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-41-7	Beryllium	0.18	T	mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-43-9	Cadmium	0.21		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-47-3	Chromium	27		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-50-8	Copper	73		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7439-92-1	Lead	15		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7439-96-5	Manganese	170		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-02-0	Nickel	14		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7782-49-2	Selenium	0.66	T	mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-22-4	Silver	0.23		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-28-0	Thallium	0.13	T	mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-66-6	Zinc	26		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-39-3	Barium	66		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-48-4	Cobalt	5.9		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7440-23-5	Sodium	82	T	mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	75-01-4	Vanadium	83		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7429-90-5	Aluminum	7700		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-36-0	Antimony	0.36		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-38-2	Arsenic	9.6		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-41-7	Beryllium	0.094	T	mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-43-9	Cadmium	0.18	T	mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-47-3	Chromium	9.7		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-50-8	Copper	12	J	mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7439-92-1	Lead	9	J	mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7439-96-5	Manganese	140		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-02-0	Nickel	5.2		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7782-49-2	Selenium	0.33	T	mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-22-4	Silver	0.28		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-28-0	Thallium	0.14	U	mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-66-6	Zinc	19		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-39-3	Barium	21		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-48-4	Cobalt	3.3	J	mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7440-23-5	Sodium	140	J	mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	75-01-4	Vanadium	43		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7439-89-6	Iron	32000		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	9/7/7440	Potassium	400		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-70-2	Calcium	330		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7439-95-4	Magnesium	2300		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7439-89-6	Iron	20000		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	9/7/7440	Potassium	680		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-70-2	Calcium	300		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7439-95-4	Magnesium	8100		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7439-89-6	Iron	56000		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	9/7/7440	Potassium	150	T	mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-70-2	Calcium	240		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7439-95-4	Magnesium	1100		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7439-89-6	Iron	20000		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	9/7/7440	Potassium	460		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-70-2	Calcium	830		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7439-95-4	Magnesium	5700		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7429-90-5	Aluminum	17000		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-36-0	Antimony	0.46		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-38-2	Arsenic	120		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-41-7	Beryllium	0.34		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-43-9	Cadmium	0.21		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-47-3	Chromium	63		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-50-8	Copper	92		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7439-92-1	Lead	14		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-02-0	Nickel	130		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7782-49-2	Selenium	0.77		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-22-4	Silver	0.13	T	mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-28-0	Thallium	0.29	T	mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-66-6	Zinc	62		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-39-3	Barium	54		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-48-4	Cobalt	15		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7440-23-5	Sodium	330		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	75-01-4	Vanadium	61		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7439-96-5	Manganese	420		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7429-90-5	Aluminum	31000		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-36-0	Antimony	0.29		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-38-2	Arsenic	9.9		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-41-7	Beryllium	0.23		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-43-9	Cadmium	0.22	T	mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-47-3	Chromium	34		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-50-8	Copper	36		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7439-92-1	Lead	10		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-02-0	Nickel	17		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7782-49-2	Selenium	0.91		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-22-4	Silver	0.38		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-28-0	Thallium	0.15	U	mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-66-6	Zinc	23		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-39-3	Barium	20		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-48-4	Cobalt	3.4		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7440-23-5	Sodium	140		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	75-01-4	Vanadium	61		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7439-96-5	Manganese	63		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7429-90-5	Aluminum	2000		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-36-0	Antimony	0.2	T	mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-38-2	Arsenic	3.2		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-41-7	Beryllium	0.025	U	mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-43-9	Cadmium	0.054	T	mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-47-3	Chromium	4.5		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-50-8	Copper	3.3		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7439-92-1	Lead	5.5		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-02-0	Nickel	1.8		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7782-49-2	Selenium	0.23	U	mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-22-4	Silver	0.13	T	mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-28-0	Thallium	0.15	U	mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-66-6	Zinc	12		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-39-3	Barium	3.4		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-48-4	Cobalt	1.5		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7440-23-5	Sodium	150		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	75-01-4	Vanadium	33		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7439-96-5	Manganese	36		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	7439-97-6	Mercury	0.15		mg/Kg
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	7439-97-6	Mercury	0.11		mg/Kg
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	7439-97-6	Mercury	0.095		mg/Kg
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	7439-97-6	Mercury	0.18		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	7439-97-6	Mercury	0.079		mg/Kg
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	7439-97-6	Mercury	0.13		mg/Kg
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	7439-97-6	Mercury	0.043		mg/Kg
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	7439-97-6	Mercury	0.17		mg/Kg
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	7439-97-6	Mercury	0.056		mg/Kg
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	7439-97-6	Mercury	0.081		mg/Kg
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	7439-97-6	Mercury	0.064		mg/Kg
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	7439-97-6	Mercury	0.084		mg/Kg
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	7439-97-6	Mercury	0.27		mg/Kg
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	7439-97-6	Mercury	0.051		mg/Kg
Area 5	MC-HC-08	8/24/2011	0	6	in	W-12	Yes	STL00204	pH	4.84	J	SU
Area 5	MC-HC-06	8/24/2011	0	6	in	W-10	Yes	STL00204	pH	4.7	J	SU
Area 5	MC-HC-12	8/24/2011	0	6	in	W-9	Yes	STL00204	pH	5.23	J	SU
Area 5	MC-HC-09	8/24/2011	0	6	in	W-13	Yes	STL00204	pH	5.63	J	SU
Area 5	MC-HC-11	8/24/2011	0	6	in	W-15	Yes	STL00204	pH	5.64	J	SU
Area 5	MC-HC-10	8/24/2011	0	6	in	W-14	Yes	STL00204	pH	4.31	J	SU
Area 2	MC-HC-13	8/25/2011	0	6	in	G-1	Yes	STL00204	pH	5.53	J	SU
Area 2	MC-HC-14	8/25/2011	0	6	in	G-2	Yes	STL00204	pH	5.03	J	SU
Area 2	MC-HC-15	8/25/2011	0	6	in	G-3	Yes	STL00204	pH	4.23	J	SU
Area 2	MC-HC-16	8/25/2011	0	6	in	G-4	Yes	STL00204	pH	4.67	J	SU
Area 2	MC-HC-17	8/25/2011	0	6	in	G-5	Yes	STL00204	pH	4.89	J	SU
Area 5	MC-HC-05	8/23/2011	0	6	in	W-8	Yes	STL00204	pH	4.47	J	SU
Area 5	MC-HC-04	8/23/2011	0	6	in	W-16	Yes	STL00204	pH	4.95	J	SU
Area 5	MC-HC-07	8/24/2011	0	6	in	W-11	Yes	STL00204	pH	4.23	J	SU
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	9/7/7440	Potassium	530		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-70-2	Calcium	450		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7439-95-4	Magnesium	3000		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7439-89-6	Iron	33000		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7439-89-6	Iron	5400		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	9/7/7440	Potassium	40	T	mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-70-2	Calcium	370		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7439-95-4	Magnesium	160		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	9/7/7440	Potassium	300		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-70-2	Calcium	810		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7439-95-4	Magnesium	2000		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7439-89-6	Iron	22000		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	9/7/7440	Potassium	300	T	mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-70-2	Calcium	210		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7439-95-4	Magnesium	2000		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7439-89-6	Iron	30000		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7439-89-6	Iron	14000		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	9/7/7440	Potassium	130	T	mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-70-2	Calcium	160		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7439-95-4	Magnesium	940		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	9/7/7440	Potassium	380		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-70-2	Calcium	270		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7439-95-4	Magnesium	3100		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7439-89-6	Iron	29000		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7439-89-6	Iron	12000		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	9/7/7440	Potassium	70	T	mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-70-2	Calcium	280		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7439-95-4	Magnesium	60	T	mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	9/7/7440	Potassium	1900		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-70-2	Calcium	250		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7439-95-4	Magnesium	6200		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7439-89-6	Iron	19000		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	9/7/7440	Potassium	300		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-70-2	Calcium	540		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7439-95-4	Magnesium	880		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7439-89-6	Iron	17000		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	9/7/7440	Potassium	340		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-70-2	Calcium	690		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7439-95-4	Magnesium	4900		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7439-89-6	Iron	28000		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	9/7/7440	Potassium	290		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-70-2	Calcium	150		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7439-95-4	Magnesium	2500		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7439-89-6	Iron	43000		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	9/7/7440	Potassium	360		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-70-2	Calcium	1600		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7439-95-4	Magnesium	4000		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7439-89-6	Iron	22000		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7439-89-6	Iron	4900		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	9/7/7440	Potassium	39	T	mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-70-2	Calcium	140		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7439-95-4	Magnesium	87		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	9/7/7440	Potassium	320		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-70-2	Calcium	390		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7439-95-4	Magnesium	4100		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7439-89-6	Iron	24000		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7439-89-6	Iron	13000		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	9/7/7440	Potassium	190	T	mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-70-2	Calcium	270		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7439-95-4	Magnesium	750		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	9/7/7440	Potassium	700		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-70-2	Calcium	1900		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7439-95-4	Magnesium	6500		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7439-89-6	Iron	28000		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	9/7/7440	Potassium	210	T	mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-70-2	Calcium	200		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7439-95-4	Magnesium	970		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7439-89-6	Iron	28000		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7439-89-6	Iron	6400		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	9/7/7440	Potassium	58	T	mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-70-2	Calcium	150		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7439-95-4	Magnesium	180		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	9/7/7440	Potassium	400		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-70-2	Calcium	540		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7439-95-4	Magnesium	2700		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7439-89-6	Iron	26000		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7439-89-6	Iron	10000		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	9/7/7440	Potassium	130	T	mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-70-2	Calcium	130		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7439-95-4	Magnesium	260		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	9/7/7440	Potassium	410		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-70-2	Calcium	530		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7439-95-4	Magnesium	3600		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7439-89-6	Iron	26000		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	9/7/7440	Potassium	570		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-70-2	Calcium	720		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7439-95-4	Magnesium	5600		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7439-89-6	Iron	32000		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	9/7/7440	Potassium	340		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-70-2	Calcium	730		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7439-95-4	Magnesium	4300		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7439-89-6	Iron	32000		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	9/7/7440	Potassium	1400		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-70-2	Calcium	1900		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7439-95-4	Magnesium	5700		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7439-89-6	Iron	49000		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	9/7/7440	Potassium	1400		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-70-2	Calcium	1200		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7439-95-4	Magnesium	5000		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7439-89-6	Iron	55000		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	9/7/7440	Potassium	610		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-70-2	Calcium	360		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7439-95-4	Magnesium	5200		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7439-89-6	Iron	30000		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-39-3	Barium	38		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	75-01-4	Vanadium	36		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-48-4	Cobalt	4.3		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7429-90-5	Aluminum	25000		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-36-0	Antimony	1.9		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-38-2	Arsenic	65		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-41-7	Beryllium	0.44		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-43-9	Cadmium	0.35		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-47-3	Chromium	4.6		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-50-8	Copper	30		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7439-92-1	Lead	17		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7439-96-5	Manganese	560		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-02-0	Nickel	0.96		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7782-49-2	Selenium	1.5		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-22-4	Silver	0.8		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-28-0	Thallium	0.21	U	mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-66-6	Zinc	26		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-23-5	Sodium	64	U	mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-39-3	Barium	8.1		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	75-01-4	Vanadium	10		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7440-48-4	Cobalt	28		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7429-90-5	Aluminum	27000		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-36-0	Antimony	1.7		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-38-2	Arsenic	48		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-41-7	Beryllium	0.36		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-43-9	Cadmium	0.14	T	mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-47-3	Chromium	12		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-50-8	Copper	28		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7439-92-1	Lead	22		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7439-96-5	Manganese	130		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-02-0	Nickel	6.2		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7782-49-2	Selenium	1.1		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	9/7/7440	Potassium	350		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-70-2	Calcium	560		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7439-95-4	Magnesium	2200		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7439-89-6	Iron	24000		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	9/7/7440	Potassium	1300		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-70-2	Calcium	1800	J	mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7439-95-4	Magnesium	5300		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7439-89-6	Iron	35000		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	9/7/7440	Potassium	400		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-70-2	Calcium	300		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7439-95-4	Magnesium	2400		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7439-89-6	Iron	22000		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	9/7/7440	Potassium	1500		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-70-2	Calcium	890		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7439-95-4	Magnesium	5600		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7439-89-6	Iron	45000		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7429-90-5	Aluminum	56000		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-36-0	Antimony	7.6		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-38-2	Arsenic	330		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-41-7	Beryllium	0.62		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-43-9	Cadmium	0.9		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-47-3	Chromium	19		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-50-8	Copper	480		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7439-92-1	Lead	60		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7439-96-5	Manganese	300		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-02-0	Nickel	11		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7782-49-2	Selenium	3.8		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-22-4	Silver	1.3		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-28-0	Thallium	0.22	U	mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-66-6	Zinc	120		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7440-23-5	Sodium	66	U	mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-22-4	Silver	0.53		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-28-0	Thallium	0.19	U	mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-66-6	Zinc	34		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-23-5	Sodium	57	U	mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-39-3	Barium	31		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	75-01-4	Vanadium	55		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7440-48-4	Cobalt	3.4		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7429-90-5	Aluminum	14000		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-36-0	Antimony	2.4		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-38-2	Arsenic	430		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-41-7	Beryllium	0.096	T	mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-43-9	Cadmium	0.16	T	mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-47-3	Chromium	9.3		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-50-8	Copper	33		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7439-92-1	Lead	25		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7439-96-5	Manganese	78		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-02-0	Nickel	5		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7782-49-2	Selenium	1.3		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-22-4	Silver	0.43		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-28-0	Thallium	0.24	U	mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-66-6	Zinc	9.4		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-23-5	Sodium	73	U	mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-39-3	Barium	14		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	75-01-4	Vanadium	57		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7440-48-4	Cobalt	2.9		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7429-90-5	Aluminum	9800		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-36-0	Antimony	1.2		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-38-2	Arsenic	27		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-41-7	Beryllium	0.14	T	mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-43-9	Cadmium	0.22	T	mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-47-3	Chromium	7.3		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-50-8	Copper	33		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7439-92-1	Lead	66		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7439-96-5	Manganese	94		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-02-0	Nickel	4.3		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7782-49-2	Selenium	0.72	T	mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-22-4	Silver	0.41		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-28-0	Thallium	0.2	U	mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-66-6	Zinc	11		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-23-5	Sodium	61	T	mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-39-3	Barium	12		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	75-01-4	Vanadium	29		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7440-48-4	Cobalt	3.1		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7429-90-5	Aluminum	35000		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-36-0	Antimony	2.5		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-38-2	Arsenic	110		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-41-7	Beryllium	0.27	T	mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-43-9	Cadmium	0.28	T	mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-47-3	Chromium	19		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-50-8	Copper	44		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7439-92-1	Lead	27		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7439-96-5	Manganese	160		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-02-0	Nickel	9.7		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7782-49-2	Selenium	1	T	mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-22-4	Silver	0.74		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-28-0	Thallium	0.2	U	mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-66-6	Zinc	31		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-23-5	Sodium	61	U	mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-39-3	Barium	30		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	75-01-4	Vanadium	57		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7440-48-4	Cobalt	4.4		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7429-90-5	Aluminum	18000		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-36-0	Antimony	0.41	T	mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-38-2	Arsenic	8.4		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-41-7	Beryllium	0.19	T	mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-43-9	Cadmium	0.26	T	mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-47-3	Chromium	5.2		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-50-8	Copper	20		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7439-92-1	Lead	7.5		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7439-96-5	Manganese	19		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-02-0	Nickel	3.6		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7782-49-2	Selenium	1.2	T	mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-22-4	Silver	1		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-28-0	Thallium	0.34	U	mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-66-6	Zinc	2.9	U	mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-23-5	Sodium	100	U	mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-39-3	Barium	9.6		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	75-01-4	Vanadium	14		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7440-48-4	Cobalt	1		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7429-90-5	Aluminum	13000		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7439-92-1	Lead	7.6		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7439-96-5	Manganese	54		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-02-0	Nickel	1.2		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7782-49-2	Selenium	0.28	U	mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-22-4	Silver	0.38		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-28-0	Thallium	0.18	U	mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-66-6	Zinc	11		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-23-5	Sodium	85	T	mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-39-3	Barium	7.1		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	75-01-4	Vanadium	20		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-48-4	Cobalt	1.4		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7429-90-5	Aluminum	18000		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-36-0	Antimony	31		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-38-2	Arsenic	100		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-41-7	Beryllium	0.22	T	mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-43-9	Cadmium	0.22	T	mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-47-3	Chromium	16		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-50-8	Copper	16		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7439-92-1	Lead	59		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7439-96-5	Manganese	1300		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-02-0	Nickel	8.9		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7782-49-2	Selenium	0.48	T	mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-22-4	Silver	0.45		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-28-0	Thallium	0.2	T	mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-66-6	Zinc	68		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-23-5	Sodium	62	T	mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-39-3	Barium	30		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	75-01-4	Vanadium	43		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7440-48-4	Cobalt	10		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7429-90-5	Aluminum	9300		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-36-0	Antimony	1.2		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-38-2	Arsenic	9.6		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-41-7	Beryllium	0.15	T	mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-43-9	Cadmium	0.32	T	mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-47-3	Chromium	5.1		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-50-8	Copper	13		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7439-92-1	Lead	7.4		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7439-96-5	Manganese	66		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-02-0	Nickel	3.2		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7782-49-2	Selenium	0.38	T	mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-22-4	Silver	0.42		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-28-0	Thallium	0.24	U	mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-66-6	Zinc	8.3		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-23-5	Sodium	88	T	mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-39-3	Barium	11		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	75-01-4	Vanadium	24		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7440-48-4	Cobalt	2		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7429-90-5	Aluminum	14000		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-36-0	Antimony	0.24	T	mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-38-2	Arsenic	6.6		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-41-7	Beryllium	0.059	T	mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-43-9	Cadmium	0.16	T	mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-47-3	Chromium	10		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-50-8	Copper	13		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7439-92-1	Lead	13		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7439-96-5	Manganese	240		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-02-0	Nickel	8.8		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7782-49-2	Selenium	0.37	T	mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-22-4	Silver	0.51		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-28-0	Thallium	0.17	U	mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-66-6	Zinc	32		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-23-5	Sodium	60	T	mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-39-3	Barium	40		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	75-01-4	Vanadium	34		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7440-48-4	Cobalt	2		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7429-90-5	Aluminum	9400		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-36-0	Antimony	1.6		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-38-2	Arsenic	69		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-41-7	Beryllium	0.081	T	mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-43-9	Cadmium	0.14	T	mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-47-3	Chromium	8.6		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-50-8	Copper	14		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7439-92-1	Lead	20		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7439-96-5	Manganese	92		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-02-0	Nickel	5		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7782-49-2	Selenium	0.44	T	mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-22-4	Silver	0.39		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-28-0	Thallium	0.21	U	mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-66-6	Zinc	23		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-23-5	Sodium	64	U	mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-39-3	Barium	20		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	75-01-4	Vanadium	43		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7440-48-4	Cobalt	2.2		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7429-90-5	Aluminum	11000		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-36-0	Antimony	46		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-38-2	Arsenic	430		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-41-7	Beryllium	0.11	T	mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-43-9	Cadmium	0.23		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-47-3	Chromium	21		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-50-8	Copper	17		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7439-92-1	Lead	210		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7439-96-5	Manganese	950		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-02-0	Nickel	13		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7782-49-2	Selenium	0.23	U	mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-22-4	Silver	3.5		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-28-0	Thallium	0.19	T	mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-66-6	Zinc	79		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-23-5	Sodium	80	T	mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-39-3	Barium	15		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	75-01-4	Vanadium	38		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7440-48-4	Cobalt	12		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7429-90-5	Aluminum	29000		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-36-0	Antimony	3		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-38-2	Arsenic	69		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-41-7	Beryllium	0.27	T	mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-43-9	Cadmium	0.065	T	mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-47-3	Chromium	17		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-50-8	Copper	19		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7439-92-1	Lead	21		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7439-96-5	Manganese	130		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-02-0	Nickel	8.2		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7782-49-2	Selenium	0.51	T	mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-22-4	Silver	0.51		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-28-0	Thallium	0.2	U	mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-66-6	Zinc	1.7	U	mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-23-5	Sodium	60	U	mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-39-3	Barium	26		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	75-01-4	Vanadium	110		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7440-48-4	Cobalt	3.9		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7429-90-5	Aluminum	9400		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-36-0	Antimony	43		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-38-2	Arsenic	400		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-41-7	Beryllium	0.2	T	mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-43-9	Cadmium	1.1		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-47-3	Chromium	15		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-50-8	Copper	28		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7439-92-1	Lead	170		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7439-96-5	Manganese	1200		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-02-0	Nickel	11		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7782-49-2	Selenium	0.21	U	mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-22-4	Silver	1.4		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-28-0	Thallium	0.2	T	mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-66-6	Zinc	210		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-23-5	Sodium	85	T	mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-39-3	Barium	28		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	75-01-4	Vanadium	29		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7440-48-4	Cobalt	11		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7429-90-5	Aluminum	6100		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-36-0	Antimony	1.6		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-38-2	Arsenic	14		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-41-7	Beryllium	0.066	T	mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-43-9	Cadmium	0.13	T	mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-47-3	Chromium	3.1		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7440-50-8	Copper	7.5		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-36-0	Antimony	20	J	mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-38-2	Arsenic	430		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-41-7	Beryllium	0.31		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-43-9	Cadmium	1		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-47-3	Chromium	26		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-50-8	Copper	27		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7439-92-1	Lead	170		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7439-96-5	Manganese	1400		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-02-0	Nickel	20		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7782-49-2	Selenium	0.56	T	mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-22-4	Silver	1.4		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-28-0	Thallium	0.31	T	mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-66-6	Zinc	210		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-23-5	Sodium	250		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-39-3	Barium	43		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	75-01-4	Vanadium	48		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7440-48-4	Cobalt	13		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7429-90-5	Aluminum	18000		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-36-0	Antimony	0.47		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-38-2	Arsenic	20		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-41-7	Beryllium	0.099	T	mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-43-9	Cadmium	0.25	T	mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-47-3	Chromium	26		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-50-8	Copper	14		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7439-92-1	Lead	14		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7439-96-5	Manganese	86		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-02-0	Nickel	9.5		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7782-49-2	Selenium	0.72	T	mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-22-4	Silver	0.52		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-28-0	Thallium	0.31	T	mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-66-6	Zinc	24		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-23-5	Sodium	150		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-39-3	Barium	25		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	75-01-4	Vanadium	59		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7440-48-4	Cobalt	2.4		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7429-90-5	Aluminum	15000		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-36-0	Antimony	0.48		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-38-2	Arsenic	17		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-41-7	Beryllium	0.16	T	mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-43-9	Cadmium	0.3	T	mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-47-3	Chromium	27		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-50-8	Copper	19		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7439-92-1	Lead	27		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7439-96-5	Manganese	210		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-02-0	Nickel	17		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7782-49-2	Selenium	1	T	mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-22-4	Silver	0.79		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-28-0	Thallium	0.22	T	mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-66-6	Zinc	66		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-23-5	Sodium	83	T	mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-39-3	Barium	37		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	75-01-4	Vanadium	54		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7440-48-4	Cobalt	4		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7429-90-5	Aluminum	38000		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-36-0	Antimony	0.87		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-38-2	Arsenic	62		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-66-6	Zinc	180		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-23-5	Sodium	95	T	mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-39-3	Barium	36		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	75-01-4	Vanadium	69		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-48-4	Cobalt	7.8		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-41-7	Beryllium	0.93		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-43-9	Cadmium	0.2	T	mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-47-3	Chromium	81		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-50-8	Copper	79		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7439-92-1	Lead	22		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7439-96-5	Manganese	670		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-02-0	Nickel	110		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7782-49-2	Selenium	1.6		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-22-4	Silver	0.29	T	mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-28-0	Thallium	0.26	T	mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-66-6	Zinc	140		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-23-5	Sodium	110	T	mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-39-3	Barium	120		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	75-01-4	Vanadium	86		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7440-48-4	Cobalt	24		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7429-90-5	Aluminum	17000		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-36-0	Antimony	0.17	T	mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-38-2	Arsenic	9.3		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-41-7	Beryllium	0.15	T	mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-43-9	Cadmium	0.13	T	mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-47-3	Chromium	19		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-50-8	Copper	11		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7439-92-1	Lead	5.5		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7439-96-5	Manganese	83		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-02-0	Nickel	9.6		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7782-49-2	Selenium	0.73	T	mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-22-4	Silver	0.29		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-28-0	Thallium	0.19	U	mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-66-6	Zinc	20		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-23-5	Sodium	98	T	mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-39-3	Barium	27		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	75-01-4	Vanadium	48		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7440-48-4	Cobalt	2.3		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7429-90-5	Aluminum	27000		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-36-0	Antimony	0.36		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-38-2	Arsenic	18		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-41-7	Beryllium	0.36		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-43-9	Cadmium	0.32		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-47-3	Chromium	55		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-50-8	Copper	36		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7439-92-1	Lead	12		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7439-96-5	Manganese	410		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-02-0	Nickel	41		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7782-49-2	Selenium	0.95	T	mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-22-4	Silver	0.34		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-28-0	Thallium	0.18	U	mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-66-6	Zinc	66		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-23-5	Sodium	110	T	mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-39-3	Barium	76		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	75-01-4	Vanadium	61		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7440-48-4	Cobalt	9.9		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7429-90-5	Aluminum	4500		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-36-0	Antimony	0.11	T	mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-38-2	Arsenic	3.7		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-41-7	Beryllium	0.066	T	mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-43-9	Cadmium	0.085	T	mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-47-3	Chromium	5.2		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-50-8	Copper	6.9		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7439-92-1	Lead	5.1		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7439-96-5	Manganese	30		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-02-0	Nickel	3.6		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7782-49-2	Selenium	0.3	T	mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-22-4	Silver	0.19	T	mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-28-0	Thallium	0.18	U	mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-66-6	Zinc	13		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-23-5	Sodium	150		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-39-3	Barium	14		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	75-01-4	Vanadium	22		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7440-48-4	Cobalt	1.3		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7429-90-5	Aluminum	24000		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-36-0	Antimony	0.44	J	mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-38-2	Arsenic	28		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-41-7	Beryllium	0.44		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-43-9	Cadmium	0.21	T	mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-47-3	Chromium	32		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-50-8	Copper	19		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7439-92-1	Lead	26		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7439-96-5	Manganese	150		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-02-0	Nickel	21		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7782-49-2	Selenium	1.1		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-22-4	Silver	0.19	T	mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-28-0	Thallium	0.16	U	mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-66-6	Zinc	46	J	mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-23-5	Sodium	110	JT	mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-39-3	Barium	41		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	75-01-4	Vanadium	64		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7440-48-4	Cobalt	5.4		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7429-90-5	Aluminum	4400		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-36-0	Antimony	0.22	T	mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-38-2	Arsenic	28		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-41-7	Beryllium	0.055	T	mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-43-9	Cadmium	0.084	T	mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-47-3	Chromium	29		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-50-8	Copper	15		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7439-92-1	Lead	3.6		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7439-96-5	Manganese	43		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-02-0	Nickel	9.4		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7782-49-2	Selenium	0.32	U	mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-22-4	Silver	0.11	T	mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-28-0	Thallium	0.21	U	mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-66-6	Zinc	16		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-23-5	Sodium	110	T	mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-39-3	Barium	16		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	75-01-4	Vanadium	65		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7440-48-4	Cobalt	2		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7429-90-5	Aluminum	28000		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-36-0	Antimony	0.55		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-38-2	Arsenic	25		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-41-7	Beryllium	0.43		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-43-9	Cadmium	0.4		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-47-3	Chromium	33		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-50-8	Copper	23		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7439-92-1	Lead	29		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7439-96-5	Manganese	180		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-02-0	Nickel	26		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7782-49-2	Selenium	1.2		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-22-4	Silver	0.15	T	mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-28-0	Thallium	0.22	U	mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-66-6	Zinc	53		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-23-5	Sodium	94	T	mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-39-3	Barium	46		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	75-01-4	Vanadium	55		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7440-48-4	Cobalt	6		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7429-90-5	Aluminum	32000		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-36-0	Antimony	0.32		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-38-2	Arsenic	17		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-41-7	Beryllium	0.51		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-43-9	Cadmium	0.39		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-47-3	Chromium	62		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-50-8	Copper	34		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7439-92-1	Lead	17		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7439-96-5	Manganese	520		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-02-0	Nickel	39		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7782-49-2	Selenium	1.3		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-22-4	Silver	0.61		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-28-0	Thallium	0.2	U	mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-66-6	Zinc	65		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-23-5	Sodium	130	T	mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-39-3	Barium	80		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	75-01-4	Vanadium	75		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7440-48-4	Cobalt	11		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7429-90-5	Aluminum	29000		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-36-0	Antimony	0.3	T	mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-38-2	Arsenic	17		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-41-7	Beryllium	0.73		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-43-9	Cadmium	0.3	T	mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-47-3	Chromium	44		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-50-8	Copper	21		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7439-92-1	Lead	10		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7439-96-5	Manganese	320		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-02-0	Nickel	31		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7782-49-2	Selenium	1.2		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-22-4	Silver	0.21	T	mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-28-0	Thallium	0.21	U	mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-66-6	Zinc	48		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-23-5	Sodium	110	T	mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-39-3	Barium	52		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	75-01-4	Vanadium	65		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7440-48-4	Cobalt	11		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7429-90-5	Aluminum	22000		mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-36-0	Antimony	7.2		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-38-2	Arsenic	380		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-41-7	Beryllium	0.37		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-43-9	Cadmium	0.62		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-47-3	Chromium	12		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-50-8	Copper	190		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7439-92-1	Lead	91		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7439-96-5	Manganese	2400		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-02-0	Nickel	7.2		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7782-49-2	Selenium	1.8		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-22-4	Silver	0.71		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-28-0	Thallium	0.28	T	mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-66-6	Zinc	270		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-23-5	Sodium	320		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-39-3	Barium	72		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	75-01-4	Vanadium	87		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7440-48-4	Cobalt	50		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7429-90-5	Aluminum	20000		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-36-0	Antimony	6.5		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-38-2	Arsenic	260		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-41-7	Beryllium	0.29		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-43-9	Cadmium	0.59		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-47-3	Chromium	11		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-50-8	Copper	200		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7439-92-1	Lead	80		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7439-96-5	Manganese	1800		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-02-0	Nickel	6.6		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7782-49-2	Selenium	2		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-22-4	Silver	0.79		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-28-0	Thallium	0.27	T	mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-66-6	Zinc	150		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-23-5	Sodium	280		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-39-3	Barium	73		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	75-01-4	Vanadium	82		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7440-48-4	Cobalt	34		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7429-90-5	Aluminum	27000		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-36-0	Antimony	2.9		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-38-2	Arsenic	160		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-41-7	Beryllium	0.36		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-43-9	Cadmium	0.28		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-47-3	Chromium	71		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-50-8	Copper	76		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7439-92-1	Lead	53		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7439-96-5	Manganese	1200		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-02-0	Nickel	49		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7782-49-2	Selenium	1.2		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-22-4	Silver	0.4		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7440-28-0	Thallium	0.31	T	mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7429-90-5	Aluminum	13000		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-36-0	Antimony	2.9		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-38-2	Arsenic	150		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-41-7	Beryllium	0.084	T	mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-43-9	Cadmium	0.2		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-47-3	Chromium	7.4		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-50-8	Copper	26		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7439-92-1	Lead	20		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7439-96-5	Manganese	190		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-02-0	Nickel	3.3		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7782-49-2	Selenium	0.34	T	mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-22-4	Silver	0.33		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-28-0	Thallium	0.13	U	mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-66-6	Zinc	55		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-23-5	Sodium	150		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-39-3	Barium	19		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	75-01-4	Vanadium	64		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7440-48-4	Cobalt	3.9		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7429-90-5	Aluminum	17000		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-36-0	Antimony	8.2		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-38-2	Arsenic	230		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-41-7	Beryllium	0.16	T	mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-43-9	Cadmium	0.78		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-47-3	Chromium	11		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-50-8	Copper	140		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7439-92-1	Lead	88		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7439-96-5	Manganese	1300		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-02-0	Nickel	8.2		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7782-49-2	Selenium	1.2		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-22-4	Silver	1.9		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-28-0	Thallium	0.31	T	mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-66-6	Zinc	160		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-23-5	Sodium	390		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-39-3	Barium	52		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	75-01-4	Vanadium	79		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7440-48-4	Cobalt	19		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7429-90-5	Aluminum	23000		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-36-0	Antimony	2.7		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-38-2	Arsenic	100		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-41-7	Beryllium	0.26		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-43-9	Cadmium	0.37		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-47-3	Chromium	25		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-50-8	Copper	51		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7439-92-1	Lead	59		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7439-96-5	Manganese	180		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-02-0	Nickel	10		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7782-49-2	Selenium	1.1		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-22-4	Silver	0.62		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-28-0	Thallium	0.3	T	mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-66-6	Zinc	61		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-23-5	Sodium	120	T	mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-39-3	Barium	23		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	75-01-4	Vanadium	50		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7440-48-4	Cobalt	5		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7429-90-5	Aluminum	20000		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-36-0	Antimony	4.1		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-38-2	Arsenic	180		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-41-7	Beryllium	0.13	T	mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-43-9	Cadmium	0.48		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-47-3	Chromium	11		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-50-8	Copper	130		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7439-92-1	Lead	53		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7439-96-5	Manganese	980		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-02-0	Nickel	5.3		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7782-49-2	Selenium	2.1		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-22-4	Silver	0.69		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-28-0	Thallium	0.33	T	mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-66-6	Zinc	71		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-23-5	Sodium	250		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-39-3	Barium	47		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	75-01-4	Vanadium	95		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7440-48-4	Cobalt	17		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	7439-97-6	Mercury	0.35		mg/Kg
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	7439-97-6	Mercury	0.2		mg/Kg
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	7439-97-6	Mercury	0.2		mg/Kg
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	7439-97-6	Mercury	0.14		mg/Kg
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	7439-97-6	Mercury	0.26		mg/Kg
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	7439-97-6	Mercury	0.26		mg/Kg
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	7439-97-6	Mercury	0.2		mg/Kg
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	7439-97-6	Mercury	0.094		mg/Kg
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	7439-97-6	Mercury	0.21		mg/Kg
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	7439-97-6	Mercury	0.83		mg/Kg
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	7439-97-6	Mercury	0.12		mg/Kg
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	7439-97-6	Mercury	0.56		mg/Kg
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	7439-97-6	Mercury	0.052		mg/Kg
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	7439-97-6	Mercury	0.47		mg/Kg
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	7439-97-6	Mercury	0.1		mg/Kg
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	7439-97-6	Mercury	0.81		mg/Kg
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	7439-97-6	Mercury	0.24		mg/Kg
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	7439-97-6	Mercury	0.13		mg/Kg
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	7439-97-6	Mercury	0.16		mg/Kg
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	7439-97-6	Mercury	0.21		mg/Kg
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	7439-97-6	Mercury	0.14		mg/Kg
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	7439-97-6	Mercury	0.061		mg/Kg
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	7439-97-6	Mercury	0.23		mg/Kg
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	7439-97-6	Mercury	0.11		mg/Kg
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	7439-97-6	Mercury	0.27		mg/Kg
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	7439-97-6	Mercury	0.15		mg/Kg
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	7439-97-6	Mercury	0.13		mg/Kg
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	7439-97-6	Mercury	0.1		mg/Kg
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	7439-97-6	Mercury	0.11		mg/Kg
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	7439-97-6	Mercury	0.19		mg/Kg
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	7439-97-6	Mercury	0.037		mg/Kg
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	7439-97-6	Mercury	0.11		mg/Kg
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	7439-97-6	Mercury	0.23		mg/Kg
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	7439-97-6	Mercury	0.098		mg/Kg
Area 2	MC-HC-62	9/16/2011	0	6	in	76-9	Yes	STL00204	pH	5.43	J	SU
Area 2	MC-HC-54	9/16/2011	0	6	in	76-14	Yes	STL00204	pH	5.41	J	SU
Area 2	MC-HC-55	9/16/2011	0	6	in	76-15	Yes	STL00204	pH	5.04	J	SU
Area 2	MC-HC-52	9/16/2011	0	6	in	76-12	Yes	STL00204	pH	4.92	J	SU
Area 2	MC-HC-58	9/16/2011	0	6	in	76-18	Yes	STL00204	pH	5.07	J	SU
Area 2	MC-HC-57	9/16/2011	0	6	in	76-17	Yes	STL00204	pH	5.06	J	SU
Area 2	MC-HC-53	9/16/2011	0	6	in	76-13	Yes	STL00204	pH	4.77	J	SU
Area 2	MC-HC-56	9/16/2011	0	6	in	76-16	Yes	STL00204	pH	4.81	J	SU
Area 2	MC-HC-51	9/16/2011	0	6	in	76-10	Yes	STL00204	pH	4.31	J	SU
Area 4	MC-HC-36	9/13/2011	0	6	in	76-1	Yes	STL00204	pH	4.72	J	SU
Area 2	MC-HC-59	9/16/2011	0	6	in	76-4	Yes	STL00204	pH	5.21	J	SU
Area 2	MC-HC-47	9/15/2011	0	6	in	76-11	Yes	STL00204	pH	5.83	J	SU
Area 2	MC-HC-60	9/16/2011	0	6	in	76-5	Yes	STL00204	pH	5.05	J	SU
Area 4	MC-HC-37	9/13/2011	0	6	in	76-3	Yes	STL00204	pH	4.85	J	SU
Area 2	MC-HC-61	9/16/2011	0	6	in	76-6	Yes	STL00204	pH	4.97	J	SU
Area 4	MC-HC-48	9/15/2011	0	6	in	76-2	Yes	STL00204	pH	5.59	J	SU
Area 5	MC-HC-29	9/12/2011	0	6	in	W-22	Yes	STL00204	pH	4.56	J	SU
Area 5	MC-HC-31	9/12/2011	0	6	in	W-3	Yes	STL00204	pH	4.57	J	SU
Area 5	MC-HC-26	9/12/2011	0	6	in	W-19	Yes	STL00204	pH	5.02	J	SU
Area 5	MC-HC-27	9/12/2011	0	6	in	W-2	Yes	STL00204	pH	4.8	J	SU
Area 5	MC-HC-32	9/12/2011	0	6	in	W-6	Yes	STL00204	pH	4.95	J	SU
Area 5	MC-HC-33	9/12/2011	0	6	in	W-7	Yes	STL00204	pH	4.36	J	SU
Area 5	MC-HC-28	9/12/2011	0	6	in	W-21	Yes	STL00204	pH	4.82	J	SU
Area 5	MC-HC-30	9/12/2011	0	6	in	W-23	Yes	STL00204	pH	4.18	J	SU
Area 5	MC-HC-25	9/12/2011	0	6	in	W-18	Yes	STL00204	pH	4.85	J	SU
Area 5	MC-HC-23	9/12/2011	0	6	in	W-1	Yes	STL00204	pH	4.96	J	SU
Area 5	MC-HC-24	9/12/2011	0	6	in	W-17	Yes	STL00204	pH	5.17	J	SU
Area 3	MC-HC-44	9/14/2011	0	6	in	G-9	Yes	STL00204	pH	5.32	J	SU
Area 3	MC-HC-40	9/14/2011	0	6	in	G-12	Yes	STL00204	pH	5.05	J	SU
Area 2	MC-HC-43	9/14/2011	0	6	in	G-8	Yes	STL00204	pH	5.01	J	SU
Area 2	MC-HC-42	9/14/2011	0	6	in	G-7	Yes	STL00204	pH	4.57	J	SU
Area 3	MC-HC-39	9/14/2011	0	6	in	G-11	Yes	STL00204	pH	5.03	J	SU
Area 2	MC-HC-41	9/14/2011	0	6	in	G-6	Yes	STL00204	pH	4.48	J	SU
Area 3	MC-HC-38	9/14/2011	0	6	in	G-10	Yes	STL00204	pH	4.67	J	SU
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-70-2	Calcium	82		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7439-89-6	Iron	2300		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7439-95-4	Magnesium	48	T	mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	9/7/7440	Potassium	42	T	mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-70-2	Calcium	900		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7439-95-4	Magnesium	740		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	9/7/7440	Potassium	180	T	mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7439-89-6	Iron	15000		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7429-90-5	Aluminum	560		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-39-3	Barium	2.9		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-41-7	Beryllium	0.023	U	mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-43-9	Cadmium	0.051	T	mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-47-3	Chromium	0.9		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-48-4	Cobalt	0.56		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-50-8	Copper	1.1		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7439-92-1	Lead	1		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-02-0	Nickel	0.68		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7782-49-2	Selenium	0.21	U	mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-22-4	Silver	0.13	T	mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-23-5	Sodium	89	T	mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-28-0	Thallium	0.14	U	mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	75-01-4	Vanadium	7		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-66-6	Zinc	4.8		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-36-0	Antimony	0.096	T	mg/Kg

Ecological_Exposure_Area	Location_ID	Field_Activity_Start_Date	Field_Activity_Upper_Depth	Field_Activity_Lower_Depth	Field_Activity_Depth_UOM	Sample_ID	Background?	Result_Parameter_CAS_Number	Result_Parameter_Name	Result_Reported_Value	Result_Data_Qualifier	Result_Value_UOM
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7440-38-2	Arsenic	1.5		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7439-96-5	Manganese	10		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7429-90-5	Aluminum	6900		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-39-3	Barium	16		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-41-7	Beryllium	0.17	T	mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-43-9	Cadmium	0.25	T	mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-47-3	Chromium	4.5		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-48-4	Cobalt	2.8		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-50-8	Copper	16		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7439-92-1	Lead	24		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-02-0	Nickel	3.5		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7782-49-2	Selenium	0.65	T	mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-22-4	Silver	0.46		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-23-5	Sodium	84	T	mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-28-0	Thallium	0.19	U	mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	75-01-4	Vanadium	23		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-66-6	Zinc	29		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-36-0	Antimony	0.77		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7440-38-2	Arsenic	48		mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7439-96-5	Manganese	95		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	7439-97-6	Mercury	0.057	U	mg/Kg
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	7439-97-6	Mercury	0.11		mg/Kg
Area 2	MC-HC-73	9/29/2011	0	6	in	76-7	Yes	STL00204	pH	4.96	J	SU
Area 2	MC-HC-74	9/29/2011	0	6	in	76-8	Yes	STL00204	pH	5.28	J	SU

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ATTACHMENT C
PROUCL OUTPUT FILES – SOIL SUMMARY STATISTICS AND UPPER CONFIDENCE LIMITS

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Attachment C. ProUCL Output Files - Soil Summary Statistics and Upper Confidence Levels

From File: C:\Users\admin\Desktop\Area 1 data.wst

Ecological Exposure Area 1

Summary Statistics for Raw Data Sets with NDs using Detected Data Only

				Raw Statistics using Detected Observations							
Variable	Num Ds	NumNDs	% NDs	Minimum	Maximum	Mean	Median	SD	MAD/0.675	Skewness	CV
Aluminum	47	0	0.00%	529	25800	7591	3870	8041	4463	1.089	1.059
Anitmony	45	2	4.26%	2.8	10700	2578	1290	2895	1899	1.152	1.123
Arsenic	47	0	0.00%	51.7	92100	23291	14500	23669	13180	1.534	1.016
Barium	47	0	0.00%	19.2	1220	134.5	46.7	251.3	30.39	3.512	1.869
Beryllium	10	36	78.26%	0.22	2.93	0.824	0.3	0.926	0.119	1.646	1.124
Cadmium	42	5	10.64%	0.23	114	13.76	6.115	26.05	6.101	3.249	1.893
Calcium	46	0	0.00%	12.4	14300	1719	761.5	2621	1033	3.016	1.525
Chromium	47	0	0.00%	5.1	142	47.26	39.6	25.92	24.46	1.231	0.548
Cobalt	35	11	23.91%	0.65	28.1	6.965	5.45	5.97	5.767	1.661	0.857
Copper	47	0	0.00%	29.9	4240	721.8	452	836.5	369.2	2.368	1.159
Iron	47	0	0.00%	8270	149000	58821	57500	31248	27872	0.957	0.531
Lead	47	0	0.00%	16.9	22500	7289	3980	7078	4864	0.914	0.971
Magnesium	44	2	4.35%	17.1	8440	1985	1145	2280	1551	1.5	1.148
Manganese	47	0	0.00%	16.6	7210	471.6	217	1071	258	5.684	2.272
Mercury	47	0	0.00%	0.033	15.3	2.13	0.64	3.16	0.789	2.219	1.484
Nickel	41	6	12.77%	2.1	50	16.4	12.5	12.18	10.82	1.059	0.743
pH	48	0	0.00%	2.98	6.5	4.035	3.79	0.851	0.66	1.164	0.211
Potassium	42	4	8.70%	261	4280	1648	1655	925.4	778.4	1.069	0.562
Selenium	28	18	39.13%	0.3	6.77	2.162	1.545	1.466	1.03	1.346	0.678
Silver	46	0	0.00%	0.56	415	94.63	52.5	107.4	63.08	1.534	1.135
Sodium	20	26	56.52%	55	1130	382.1	296	319.6	258	1.08	0.837
Thallium	14	32	69.57%	1.5	15.8	4.839	4.445	3.395	1.549	2.851	0.702
Vanadium	44	2	4.35%	0.92	104	31.16	26.35	25.87	21.05	1.164	0.83
Zinc	47	0	0.00%	32.5	18500	1705	452	3907	575.7	3.626	2.291

From File: C:\Users\admin\Desktop\Area 2 data.wst

Ecological Exposure Area 2

Summary Statistics for Raw Data Sets with NDs using Detected Data Only

				Raw Statistics using Detected Observations							
Variable	Num Ds	NumNDs	% NDs	Minimum	Maximum	Mean	Median	SD	MAD/0.675	Skewness	CV
Aluminum	14	0	0.00%	2600	28900	12193	10400	7650	5411	1.033	0.627
Anitmony	22	6	21.43%	0.4	280	27.83	7.3	61.73	8.673	3.657	2.218
Arsenic	28	0	0.00%	38.3	73400	15484	7415	18771	10772	1.483	1.212
Barium	14	0	0.00%	17	110	50.21	52.6	25.98	33.51	0.877	0.517
Beryllium	11	0	0.00%	0.041	0.21	0.0994	0.082	0.0532	0.0193	1.424	0.535
Cadmium	19	9	32.14%	0.086	4.23	0.952	0.54	1.001	0.638	2.126	1.051
Calcium	11	0	0.00%	300	2300	689.1	570	545.7	148.3	3.063	0.792
Chromium	26	2	7.14%	1.7	217	24.27	6.95	43.28	4.67	3.875	1.783
Cobalt	11	0	0.00%	4.2	78	25.51	9	26.29	7.116	1.183	1.031
Copper	28	0	0.00%	8	2460	501.4	300	592.1	336.5	1.97	1.181
Iron	14	0	0.00%	17800	200000	80636	79500	53237	62268	0.796	0.66
Lead	28	0	0.00%	6.24	1660	358.7	111	479.6	146.3	1.431	1.337
Magnesium	11	0	0.00%	200	4500	2982	3200	1340	1038	-1.062	0.449
Manganese	14	0	0.00%	120	2100	616.7	323.5	593.6	153.4	1.546	0.962
Mercury	25	3	10.71%	0.034	1	0.487	0.43	0.335	0.371	0.308	0.688
Nickel	14	0	0.00%	1.5	18	7.993	7.5	6.241	8.302	0.471	0.781
pH	31	0	0.00%	1.74	7.2	4.573	4.4	1.207	1.305	0.0641	0.264
Potassium	11	0	0.00%	130	2100	1122	1200	618.9	741.3	-0.0908	0.552
Selenium	19	6	24.00%	0.1	25	3.866	1.22	6.419	0.86	2.584	1.66
Silver	20	5	20.00%	0.2	70	13.4	6.015	17.79	8.139	2.042	1.327
Sodium	7	4	36.36%	66	100	83.29	85	11.15	10.38	-0.0578	0.134
Thallium	10	1	9.09%	0.15	0.47	0.276	0.26	0.113	0.156	0.394	0.41
Vanadium	11	0	0.00%	13	63	34.82	38	18.52	28.17	0.173	0.532
Zinc	28	0	0.00%	5	971	221.3	145.5	208.6	161.6	1.912	0.943

From File: C:\Dana new work_121511\Hart Crowser\Monte Cristo Mine_win & work\background comparisons\site soil data, summ stats, UCLs\Area 3 data.wst

Ecological Exposure Area 3

Summary Statistics for Raw Data Sets with NDs using Detected Data Only

				Raw Statistics using Detected Observations							
Variable	Num Ds	NumNDs	% NDs	Minimum	Maximum	Mean	Median	SD	MAD/0.675	Skewness	CV
Aluminum	18	0	0.00%	1270	27000	10533	8850	8168	7635	0.951	0.775
Anitmony	29	3	9.38%	0.32	8800	735.9	58	1873	84.6	3.483	2.545
Arsenic	32	0	0.00%	30	33600	8174	5230	8726	6746	1.332	1.068
Barium	18	0	0.00%	3.1	130	43.29	41.5	34.64	31.58	0.973	0.8
Beryllium	13	5	27.78%	0.076	0.6	0.239	0.2	0.157	0.0741	1.661	0.656
Cadmium	27	5	15.63%	0.065	55	6.843	2.97	11.28	4.018	3.394	1.649
Calcium	18	0	0.00%	91.6	5580	1422	701	1507	790.2	1.5	1.06
Chromium	24	8	25.00%	1.6	28.5	9.671	7.25	7.329	4.448	1.329	0.758
Cobalt	18	0	0.00%	1.3	36	12.7	10.43	11.37	13.22	0.501	0.895
Copper	32	0	0.00%	70	1100	416.9	307.5	300	256.5	0.828	0.72
Iron	18	0	0.00%	8900	272000	56361	49800	60089	18087	3.007	1.066
Lead	32	0	0.00%	14.8	89200	4275	420.5	15688	569.3	5.448	3.669
Magnesium	18	0	0.00%	116	5300	2184	1460	2004	1867	0.459	0.918
Manganese	18	0	0.00%	40	16000	3377	555.5	4729	761.3	1.497	1.4
Mercury	32	0	0.00%	0.069	3.72	0.943	0.695	0.889	0.623	1.572	0.943
Nickel	18	0	0.00%	1.2	82.7	13.98	7.3	20.1	8.08	2.696	1.437
pH	31	0	0.00%	1.7	6.18	4.361	4.2	1.02	0.979	-0.212	0.234
Potassium	17	1	5.56%	71	3370	1309	1300	969.2	711.6	0.587	0.74
Selenium	22	10	31.25%	0.19	17.4	1.716	0.94	3.533	0.615	4.562	2.059
Silver	27	5	15.63%	0.66	307	43.95	7.19	88.95	9.222	2.438	2.024
Sodium	14	4	22.22%	100	480	243.1	215	115.3	114.2	0.705	0.474
Thallium	13	5	27.78%	0.12	7.3	2.76	1.9	2.558	2.639	0.42	0.927
Vanadium	18	0	0.00%	5.94	84	41	34.35	23.38	28.47	0.371	0.57
Zinc	32	0	0.00%	14	3550	736.5	500	873.5	568.6	2.202	1.186

From File: C:\Users\admin\Desktop\Area 4 data.wst

Ecological Exposure Area 4

Summary Statistics for Raw Data Sets with NDs using Detected Data Only

				Raw Statistics using Detected Observations							
Variable	Num Ds	NumNDs	% NDs	Minimum	Maximum	Mean	Median	SD	MAD/0.675	Skewness	CV
Aluminum	24	0	0.00%	1200	28200	12356	11000	7607	7924	0.544	0.616
Anitmony	24	0	0.00%	3.4	2690	330.6	41	631.2	55.08	2.801	1.909
Arsenic	24	0	0.00%	89	102000	14906	2850	26133	3434	2.547	1.753
Barium	24	0	0.00%	7	125	44.91	36	29.87	22.24	1.355	0.665
Beryllium	14	0	0.00%	0.06	0.63	0.385	0.365	0.165	0.17	-0.262	0.429
Cadmium	24	0	0.00%	0.2	742	87.24	9.55	185.2	10.08	2.827	2.123
Calcium	14	0	0.00%	240	5600	2302	1550	1789	1268	0.747	0.777
Chromium	24	0	0.00%	0.74	41.6	14.27	14.5	9.755	11.05	0.825	0.683
Cobalt	14	0	0.00%	1.7	44	21.62	23	9.896	6.672	0.273	0.458
Copper	24	0	0.00%	4.1	557	192.7	149	143.8	94.37	1.136	0.746
Iron	24	0	0.00%	11000	144000	64954	62000	32144	25204	0.802	0.495
Lead	24	0	0.00%	18	20400	2635	1250	4148	1435	3.698	1.574
Magnesium	14	0	0.00%	420	6600	3596	3500	2250	3113	-0.0251	0.626
Manganese	24	0	0.00%	113	10000	2738	2000	2602	2605	0.97	0.95
Mercury	24	0	0.00%	0.028	4.9	0.93	0.535	1.175	0.615	2.326	1.264
Nickel	23	1	4.17%	1.3	45.4	15.08	15	11.05	8.895	1.088	0.733
pH	34	0	0.00%	3.4	7.3	5.17	5.395	0.785	0.43	-0.197	0.152
Potassium	14	0	0.00%	88	2100	1001	925	536.1	474.4	0.448	0.535
Selenium	14	0	0.00%	0.29	2.3	1.176	1.15	0.559	0.534	0.142	0.476
Silver	14	0	0.00%	0.52	29	10.54	8.7	7.142	4.003	1.445	0.678
Sodium	12	2	14.29%	42	240	84.08	66.5	55.42	27.43	2.331	0.659
Thallium	13	1	7.14%	0.17	0.93	0.372	0.35	0.197	0.133	2.111	0.53
Vanadium	14	0	0.00%	12	99	40.79	33	23.83	7.413	1.465	0.584
Zinc	24	0	0.00%	22	8000	1408	812.5	1754	984.4	2.718	1.246

From File: C:\Users\admin\Downloads\Area 5 data.wst

Ecological Exposure Area 5

Summary Statistics for Raw Data Sets with NDs using Detected Data Only

				Raw Statistics using Detected Observations							
Variable	Num Ds	NumNDs	% NDs	Minimum	Maximum	Mean	Median	SD	MAD/0.675	Skewness	CV
Aluminum	8	0	0.00%	13000	32600	27175	30000	6875	3484	-1.457	0.253
Anitmony	8	0	0.00%	0.3	9.3	3.073	0.45	3.817	0.2	0.836	1.242
Arsenic	8	0	0.00%	8.8	347	110.2	24	135	20.16	0.945	1.225
Barium	8	0	0.00%	31	120	70.2	63.5	31.54	27.5	0.599	0.449
Beryllium	5	0	0.00%	0.38	0.93	0.574	0.54	0.214	0.148	1.5	0.373
Cadmium	8	0	0.00%	0.2	1	0.384	0.255	0.277	0.0741	1.964	0.723
Calcium	5	0	0.00%	1900	2900	2400	2400	360.6	148.3	0	0.15
Chromium	8	0	0.00%	29.4	140	76.43	76	41.08	53.37	0.57	0.538
Cobalt	5	0	0.00%	18	33	24.8	21	6.723	4.448	0.501	0.271
Copper	8	0	0.00%	65	159	92.23	85.9	30.15	19.87	1.85	0.327
Iron	13	0	0.00%	15000	53000	37777	38000	12202	13343	-0.755	0.323
Lead	8	0	0.00%	9.8	80.6	30.1	13	27.2	3.855	1.095	0.904
Magnesium	5	0	0.00%	9600	25000	17320	16000	6543	9489	0.139	0.378
Manganese	8	0	0.00%	240	1300	877.1	970	332.2	238.7	-0.97	0.379
Mercury	8	0	0.00%	0.064	0.34	0.164	0.14	0.0978	0.0593	1.18	0.596
Nickel	8	0	0.00%	15.6	260	116.7	110	95.79	120.2	0.633	0.821
pH	11	0	0.00%	4.93	6.97	5.936	5.9	0.604	0.445	-0.0819	0.102
Potassium	5	0	0.00%	680	2000	1002	750	560.8	103.8	2.179	0.56
Selenium	5	0	0.00%	0.71	1.1	0.89	0.84	0.154	0.193	0.429	0.174
Silver	5	0	0.00%	0.08	0.14	0.0982	0.087	0.0245	0.0104	1.769	0.25
Sodium	5	0	0.00%	88	120	96.6	91	13.26	4.448	2.091	0.137
Thallium	5	0	0.00%	0.13	0.23	0.168	0.14	0.0482	0.0148	0.674	0.287
Vanadium	5	0	0.00%	14	97	71.4	81	34.11	22.24	-1.644	0.478
Zinc	8	0	0.00%	31	192	99.88	82.5	52.3	39.29	0.74	0.524

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\Area 1 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminium - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 46

Raw Statistics		Log-transformed Statistics	
Minimum	529	Minimum of Log Data	6.271
Maximum	25800	Maximum of Log Data	10.16
Mean	7591	Mean of log Data	8.297
Median	3870	SD of log Data	1.21
SD	8041		
Coefficient of Variation	1.059		
Skewness	1.089		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.782	Shapiro Wilk Test Statistic	0.926
Shapiro Wilk Critical Value	0.946	Shapiro Wilk Critical Value	0.946
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	9560	95% H-UCL	13175
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	15843
95% Adjusted-CLT UCL (Chen-1995)	9719	97.5% Chebyshev (MVUE) UCL	19183
95% Modified-t UCL (Johnson-1978)	9591	99% Chebyshev (MVUE) UCL	25744

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.87	Data Follow Appr. Gamma Distribution at 5% Significance Level
Theta Star	8724	
MLE of Mean	7591	
MLE of Standard Deviation	8138	
nu star	81.8	
Approximate Chi Square Value (.05)	61.95	**Nonparametric Statistics**
Adjusted Level of Significance	0.0449	95% CLT UCL 9520
Adjusted Chi Square Value	61.41	95% Jackknife UCL 9560
		95% Standard Bootstrap UCL 9545
Anderson-Darling Test Statistic	1.236	95% Bootstrap-t UCL 9816
Anderson-Darling 5% Critical Value	0.783	95% Hall's Bootstrap UCL 9696
Kolmogorov-Smirnov Test Statistic	0.117	95% Percentile Bootstrap UCL 9571
Kolmogorov-Smirnov 5% Critical Value	0.133	95% BCA Bootstrap UCL 9759
Data follow Appr. Gamma Distribution at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL 12703
		97.5% Chebyshev(Mean, Sd) UCL 14915
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL 19261
95% Approximate Gamma UCL	10022	
95% Adjusted Gamma UCL	10111	

Potential UCL to Use — Use 95% Approximate Gamma UCL 10022

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Antimony - Area 1

General Statistics

Number of Valid Data	47	Number of Detected Data	45
Number of Distinct Detected Data	45	Number of Non-Detect Data	2
		Percent Non-Detects	4.26%

Raw Statistics

Minimum Detected	2.8
Maximum Detected	10700
Mean of Detected	2578
SD of Detected	2895
Minimum Non-Detect	2
Maximum Non-Detect	2

Log-transformed Statistics

Minimum Detected	1.03
Maximum Detected	9.278
Mean of Detected	6.561
SD of Detected	2.245
Minimum Non-Detect	0.693
Maximum Non-Detect	0.693

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.829
5% Shapiro Wilk Critical Value	0.945

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.89
5% Shapiro Wilk Critical Value	0.945

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	2469
SD	2880
95% DL/2 (t) UCL	3174
Maximum Likelihood Estimate(MLE) Method	
Mean	2398
SD	2943
95% MLE (t) UCL	3119
95% MLE (Tiku) UCL	3075

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	6.282
SD	2.571
95% H-Stat (DL/2) UCL	77461
Log ROS Method	
Mean in Log Scale	6.34
SD in Log Scale	2.438
Mean in Original Scale	2469
SD in Original Scale	2880
95% t UCL	3174
95% Percentile Bootstrap UCL	3160
95% BCA Bootstrap UCL	3165

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.474
Theta Star	5439
nu star	42.67
A-D Test Statistic	0.646
5% A-D Critical Value	0.815
K-S Test Statistic	0.815
5% K-S Critical Value	0.139

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	10700
Mean	2469
Median	1210
SD	2880
k star	0.258
Theta star	9558
Nu star	24.28
AppChi2	14.06
95% Gamma Approximate UCL	4263
95% Adjusted Gamma UCL	4339

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	2469
SD	2849
SE of Mean	420.3
95% KM (t) UCL	3174
95% KM (z) UCL	3160
95% KM (jackknife) UCL	3174
95% KM (bootstrap t) UCL	3283
95% KM (BCA) UCL	3207
95% KM (Percentile Bootstrap) UCL	3144
95% KM (Chebyshev) UCL	4301
97.5% KM (Chebyshev) UCL	5094
99% KM (Chebyshev) UCL	6651

Potential UCLs to Use

95% KM (Chebyshev) UCL	4301

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Arsenic - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 45

Raw Statistics

Minimum	51.7
Maximum	92100
Mean	23291
Median	14500
SD	23669
Coefficient of Variation	1.016
Skewness	1.534

Log-transformed Statistics

Minimum of Log Data	3.945
Maximum of Log Data	11.43
Mean of log Data	9.203
SD of log Data	1.855

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.819
Shapiro Wilk Critical Value	0.946

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.828
Shapiro Wilk Critical Value	0.946

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	29086

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	29795
95% Modified-t UCL (Johnson-1978)	29215

Assuming Lognormal Distribution

95% H-UCL	140122
95% Chebyshev (MVUE) UCL	135042
97.5% Chebyshev (MVUE) UCL	171575
99% Chebyshev (MVUE) UCL	243339

Gamma Distribution Test

k star (bias corrected)	0.676
Theta Star	34439
MLE of Mean	23291
MLE of Standard Deviation	28322
nu star	63.57
Approximate Chi Square Value (.05)	46.23
Adjusted Level of Significance	0.0449
Adjusted Chi Square Value	45.76
Anderson-Darling Test Statistic	0.784
Anderson-Darling 5% Critical Value	0.795
Kolmogorov-Smirnov Test Statistic	0.134
Kolmogorov-Smirnov 5% Critical Value	0.135

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	28970
95% Jackknife UCL	29086
95% Standard Bootstrap UCL	28932
95% Bootstrap-t UCL	29901
95% Hall's Bootstrap UCL	29664
95% Percentile Bootstrap UCL	29177
95% BCA Bootstrap UCL	29809
95% Chebyshev(Mean, Sd) UCL	38340
97.5% Chebyshev(Mean, Sd) UCL	44852
99% Chebyshev(Mean, Sd) UCL	57643

Assuming Gamma Distribution

95% Approximate Gamma UCL	32028
95% Adjusted Gamma UCL	32356

Potential UCL to Use

Use 95% Approximate Gamma UCL 32028

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Barium - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 44

Raw Statistics		Log-transformed Statistics	
Minimum	19.2	Minimum of Log Data	2.955
Maximum	1220	Maximum of Log Data	7.107
Mean	134.5	Mean of log Data	4.117
Median	46.7	SD of log Data	1.075
SD	251.3		
Coefficient of Variation	1.869		
Skewness	3.512		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.487	Shapiro Wilk Test Statistic	0.844
Shapiro Wilk Critical Value	0.946	Shapiro Wilk Critical Value	0.946
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
95% Student's-t UCL	196	95% H-UCL	160.3
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	195
95% Adjusted-CLT UCL (Chen-1995)	214.9	97.5% Chebyshev (MVUE) UCL	232.9
95% Modified-t UCL (Johnson-1978)	199.2	99% Chebyshev (MVUE) UCL	307.4

Gamma Distribution Test		Data Distribution
k star (bias corrected)	0.727	Data do not follow a Discernable Distribution (0.05)
Theta Star	185	
MLE of Mean	134.5	
MLE of Standard Deviation	157.7	
nu star	68.34	
Approximate Chi Square Value (.05)	50.31	
Adjusted Level of Significance	0.0449	
Adjusted Chi Square Value	49.82	
Anderson-Darling Test Statistic	4.665	
Anderson-Darling 5% Critical Value	0.791	
Kolmogorov-Smirnov Test Statistic	0.261	
Kolmogorov-Smirnov 5% Critical Value	0.134	
Data not Gamma Distributed at 5% Significance Level		

Assuming Gamma Distribution		Nonparametric Statistics	
95% Approximate Gamma UCL	182.7	95% CLT UCL	194.8
95% Adjusted Gamma UCL	184.5	95% Jackknife UCL	196
		95% Standard Bootstrap UCL	193.6
		95% Bootstrap-t UCL	264.8
		95% Hall's Bootstrap UCL	432.4
		95% Percentile Bootstrap UCL	197.7
		95% BCA Bootstrap UCL	224
		95% Chebyshev(Mean, Sd) UCL	294.3
		97.5% Chebyshev(Mean, Sd) UCL	363.4
		99% Chebyshev(Mean, Sd) UCL	499.2

Potential UCL to Use — Use 95% Chebyshev (Mean, Sd) UCL 294.3

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Beryllium - Area 1

General Statistics

Number of Valid Data	46	Number of Detected Data	10
Number of Distinct Detected Data	9	Number of Non-Detect Data	36
		Percent Non-Detects	78.26%

Raw Statistics

Minimum Detected	0.22
Maximum Detected	2.93
Mean of Detected	0.824
SD of Detected	0.926
Minimum Non-Detect	0.2
Maximum Non-Detect	2

Log-transformed Statistics

Minimum Detected	-1.514
Maximum Detected	1.075
Mean of Detected	-0.676
SD of Detected	0.981
Minimum Non-Detect	-1.609
Maximum Non-Detect	0.693

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	45
Number treated as Detected	1
Single DL Non-Detect Percentage	97.83%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.725
5% Shapiro Wilk Critical Value	0.842

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.433
SD	0.58
95% DL/2 (t) UCL	0.577
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.817
5% Shapiro Wilk Critical Value	0.842

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-1.498
SD	1.086
95% H-Stat (DL/2) UCL	0.597
Log ROS Method	
Mean in Log Scale	-3.031
SD in Log Scale	1.796
Mean in Original Scale	0.223
SD in Original Scale	0.529
95% t UCL	0.354
95% Percentile Bootstrap UCL	0.358
95% BCA Bootstrap UCL	0.407

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.89
Theta Star	0.926
nu star	17.79
A-D Test Statistic	0.999
5% A-D Critical Value	0.745
K-S Test Statistic	0.745
5% K-S Critical Value	0.273

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	9.415
Mean	3.041
Median	2.493
SD	2.583
k star	0.378
Theta star	8.042
Nu star	34.79
AppChi2	22.3
95% Gamma Approximate UCL	4.745
95% Adjusted Gamma UCL	4.815

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.369
SD	0.497
SE of Mean	0.0811
95% KM (t) UCL	0.506
95% KM (z) UCL	0.503
95% KM (jackknife) UCL	0.5
95% KM (bootstrap t) UCL	0.698
95% KM (BCA) UCL	0.541
95% KM (Percentile Bootstrap) UCL	0.515
95% KM (Chebyshev) UCL	0.723
97.5% KM (Chebyshev) UCL	0.876
99% KM (Chebyshev) UCL	1.176

Potential UCLs to Use

95% KM (t) UCL	0.506
95% KM (% Bootstrap) UCL	0.515

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Cadmium - Area 1

General Statistics

Number of Valid Data	47	Number of Detected Data	42
Number of Distinct Detected Data	40	Number of Non-Detect Data	5
		Percent Non-Detects	10.64%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.23	Minimum Detected	-1.47
Maximum Detected	114	Maximum Detected	4.736
Mean of Detected	13.76	Mean of Detected	1.628
SD of Detected	26.05	SD of Detected	1.437
Minimum Non-Detect	0.2	Minimum Non-Detect	-1.609
Maximum Non-Detect	2	Maximum Non-Detect	0.693

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	16
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	31
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	34.04%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.486	Shapiro Wilk Test Statistic	0.927
5% Shapiro Wilk Critical Value	0.942	5% Shapiro Wilk Critical Value	0.942
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	12.33	Mean	1.259
SD	24.95	SD	1.761
95% DL/2 (t) UCL	18.44	95% H-Stat (DL/2) UCL	38.74
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	4.204	Mean in Log Scale	1.306
SD	32.38	SD in Log Scale	1.666
95% MLE (t) UCL	12.13	Mean in Original Scale	12.33
95% MLE (Tiku) UCL	12.7	SD in Original Scale	24.95
		95% t UCL	18.44
		95% Percentile Bootstrap UCL	18.72
		95% BCA Bootstrap UCL	21.41

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.59	Data do not follow a Discernable Distribution (0.05)	
Theta Star	23.31		
nu star	49.6		
A-D Test Statistic	1.83	Nonparametric Statistics	
5% A-D Critical Value	0.802	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.802	Mean	12.34
5% K-S Critical Value	0.143	SD	24.68
Data not Gamma Distributed at 5% Significance Level		SE of Mean	3.643
		95% KM (t) UCL	18.45
Assuming Gamma Distribution		95% KM (z) UCL	18.33
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	18.44
Minimum	1E-12	95% KM (bootstrap t) UCL	23.44
Maximum	114	95% KM (BCA) UCL	18.88
Mean	12.3	95% KM (Percentile Bootstrap) UCL	18.64
Median	5.81	95% KM (Chebyshev) UCL	28.22
SD	24.96	97.5% KM (Chebyshev) UCL	35.09
k star	0.189	99% KM (Chebyshev) UCL	48.59
Theta star	65.21		
Nu star	17.73	Potential UCLs to Use	
AppChi2	9.193	95% KM (Chebyshev) UCL	28.22
95% Gamma Approximate UCL	23.71		
95% Adjusted Gamma UCL	24.23		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Calcium - Area 1

General Statistics

Number of Valid Observations 46

Number of Distinct Observations 45

Raw Statistics

Minimum	12.4
Maximum	14300
Mean	1719
Median	761.5
SD	2621
Coefficient of Variation	1.525
Skewness	3.016

Log-transformed Statistics

Minimum of Log Data	2.518
Maximum of Log Data	9.568
Mean of log Data	6.349
SD of log Data	1.759

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.657
Shapiro Wilk Critical Value	0.945

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	2368

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	2538
95% Modified-t UCL (Johnson-1978)	2397

Gamma Distribution Test

k star (bias corrected)	0.544
Theta Star	3161
MLE of Mean	1719
MLE of Standard Deviation	2331
nu star	50.03
Approximate Chi Square Value (.05)	34.79
Adjusted Level of Significance	0.0448
Adjusted Chi Square Value	34.38
Anderson-Darling Test Statistic	0.327
Anderson-Darling 5% Critical Value	0.807
Kolmogorov-Smirnov Test Statistic	0.0844
Kolmogorov-Smirnov 5% Critical Value	0.137

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	2472
95% Adjusted Gamma UCL	2501

Potential UCL to Use

Use 95% Approximate Gamma UCL 2472

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.954
Shapiro Wilk Critical Value	0.945

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	6305
95% Chebyshev (MVUE) UCL	6378
97.5% Chebyshev (MVUE) UCL	8063
99% Chebyshev (MVUE) UCL	11373

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	2355
95% Jackknife UCL	2368
95% Standard Bootstrap UCL	2336
95% Bootstrap-t UCL	2680
95% Hall's Bootstrap UCL	2927
95% Percentile Bootstrap UCL	2377
95% BCA Bootstrap UCL	2567
95% Chebyshev(Mean, Sd) UCL	3403
97.5% Chebyshev(Mean, Sd) UCL	4132
99% Chebyshev(Mean, Sd) UCL	5564

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Chromium - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 45

Raw Statistics

Minimum	5.1
Maximum	142
Mean	47.26
Median	39.6
SD	25.92
Coefficient of Variation	0.548
Skewness	1.231

Log-transformed Statistics

Minimum of Log Data	1.629
Maximum of Log Data	4.956
Mean of log Data	3.702
SD of log Data	0.594

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.925
Shapiro Wilk Critical Value	0.946

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.967
Shapiro Wilk Critical Value	0.946

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	53.61

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	54.2
95% Modified-t UCL (Johnson-1978)	53.72

Assuming Lognormal Distribution

95% H-UCL	57.42
95% Chebyshev (MVUE) UCL	67.62
97.5% Chebyshev (MVUE) UCL	76.04
99% Chebyshev (MVUE) UCL	92.58

Gamma Distribution Test

k star (bias corrected)	3.215
Theta Star	14.7
MLE of Mean	47.26
MLE of Standard Deviation	26.36
nu star	302.2
Approximate Chi Square Value (.05)	262.9
Adjusted Level of Significance	0.0449
Adjusted Chi Square Value	261.8
Anderson-Darling Test Statistic	0.217
Anderson-Darling 5% Critical Value	0.755
Kolmogorov-Smirnov Test Statistic	0.0765
Kolmogorov-Smirnov 5% Critical Value	0.13

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	54.32
95% Adjusted Gamma UCL	54.56

Nonparametric Statistics

95% CLT UCL	53.48
95% Jackknife UCL	53.61
95% Standard Bootstrap UCL	53.32
95% Bootstrap-t UCL	54.18
95% Hall's Bootstrap UCL	54.89
95% Percentile Bootstrap UCL	53.47
95% BCA Bootstrap UCL	54.19
95% Chebyshev(Mean, Sd) UCL	63.74
97.5% Chebyshev(Mean, Sd) UCL	70.87
99% Chebyshev(Mean, Sd) UCL	84.88

Potential UCL to Use

Use 95% Approximate Gamma UCL 54.32

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Cobalt - Area 1

General Statistics

Number of Valid Data	46	Number of Detected Data	35
Number of Distinct Detected Data	34	Number of Non-Detect Data	11
		Percent Non-Detects	23.91%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.65	Minimum Detected	-0.431
Maximum Detected	28.1	Maximum Detected	3.336
Mean of Detected	6.965	Mean of Detected	1.562
SD of Detected	5.97	SD of Detected	0.952
Minimum Non-Detect	0.6	Minimum Non-Detect	-0.511
Maximum Non-Detect	6	Maximum Non-Detect	1.792

Note: Data have multiple DLs - Use of KM Method is recommended		Number treated as Non-Detect	30
For all methods (except KM, DL/2, and ROS Methods),		Number treated as Detected	16
Observations < Largest ND are treated as NDs		Single DL Non-Detect Percentage	65.22%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.847	Shapiro Wilk Test Statistic	0.958
5% Shapiro Wilk Critical Value	0.934	5% Shapiro Wilk Critical Value	0.934
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	5.665	Mean	1.151
SD	5.734	SD	1.247
95% DL/2 (t) UCL	7.085	95% H-Stat (DL/2) UCL	11.16
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	2.188	Mean in Log Scale	1.171
SD	9.237	SD in Log Scale	1.147
95% MLE (t) UCL	4.476	Mean in Original Scale	5.597
95% MLE (Tiku) UCL	5.765	SD in Original Scale	5.768
		95% t UCL	7.025
		95% Percentile Bootstrap UCL	7.011
		95% BCA Bootstrap UCL	7.174

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	1.357	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	5.135		
nu star	94.96		
A-D Test Statistic	0.321	**Nonparametric Statistics**	
5% A-D Critical Value	0.767	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.767	Mean	5.64
5% K-S Critical Value	0.152	SD	5.694
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.857
		95% KM (t) UCL	7.079
Assuming Gamma Distribution		95% KM (z) UCL	7.049
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	7.075
Minimum	1E-12	95% KM (bootstrap t) UCL	7.332
Maximum	28.1	95% KM (BCA) UCL	7.222
Mean	6.056	95% KM (Percentile Bootstrap) UCL	7.077
Median	4.395	95% KM (Chebyshev) UCL	9.375
SD	5.698	97.5% KM (Chebyshev) UCL	10.99
k star	0.387	99% KM (Chebyshev) UCL	14.16
Theta star	15.63		
Nu star	35.64	**Potential UCLs to Use**	
AppChi2	22.98	95% KM (BCA) UCL	7.222
95% Gamma Approximate UCL	9.392		
95% Adjusted Gamma UCL	9.529		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Copper - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 46

Raw Statistics

Minimum	29.9
Maximum	4240
Mean	721.8
Median	452
SD	836.5
Coefficient of Variation	1.159
Skewness	2.368

Log-transformed Statistics

Minimum of Log Data	3.398
Maximum of Log Data	8.352
Mean of log Data	5.992
SD of log Data	1.188

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.739
Shapiro Wilk Critical Value	0.946

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.962
Shapiro Wilk Critical Value	0.946

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	926.7

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	967.6
95% Modified-t UCL (Johnson-1978)	933.7

Assuming Lognormal Distribution

95% H-UCL	1264
95% Chebyshev (MVUE) UCL	1524
97.5% Chebyshev (MVUE) UCL	1841
99% Chebyshev (MVUE) UCL	2465

Gamma Distribution Test

k star (bias corrected)	0.932
Theta Star	774.4
MLE of Mean	721.8
MLE of Standard Deviation	747.7
nu star	87.62
Approximate Chi Square Value (.05)	67.04
Adjusted Level of Significance	0.0449
Adjusted Chi Square Value	66.47
Anderson-Darling Test Statistic	0.493
Anderson-Darling 5% Critical Value	0.779
Kolmogorov-Smirnov Test Statistic	0.108
Kolmogorov-Smirnov 5% Critical Value	0.133

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	943.4
95% Adjusted Gamma UCL	951.5

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	922.5
95% Jackknife UCL	926.7
95% Standard Bootstrap UCL	920.2
95% Bootstrap-t UCL	996.6
95% Hall's Bootstrap UCL	996.8
95% Percentile Bootstrap UCL	929.6
95% BCA Bootstrap UCL	961.1
95% Chebyshev(Mean, Sd) UCL	1254
97.5% Chebyshev(Mean, Sd) UCL	1484
99% Chebyshev(Mean, Sd) UCL	1936

Potential UCL to Use

Use 95% Approximate Gamma UCL 943.4

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Iron - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 46

Raw Statistics

Minimum	8270
Maximum	149000
Mean	58821
Median	57500
SD	31248
Coefficient of Variation	0.531
Skewness	0.957

Log-transformed Statistics

Minimum of Log Data	9.02
Maximum of Log Data	11.91
Mean of log Data	10.83
SD of log Data	0.598

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.933
Shapiro Wilk Critical Value	0.946

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.958
Shapiro Wilk Critical Value	0.946

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	66472

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	66998
95% Modified-t UCL (Johnson-1978)	66578

Assuming Lognormal Distribution

95% H-UCL	71713
95% Chebyshev (MVUE) UCL	84503
97.5% Chebyshev (MVUE) UCL	95068
99% Chebyshev (MVUE) UCL	115821

Gamma Distribution Test

k star (bias corrected)	3.225
Theta Star	18237
MLE of Mean	58821
MLE of Standard Deviation	32752
nu star	303.2
Approximate Chi Square Value (.05)	263.9
Adjusted Level of Significance	0.0449
Adjusted Chi Square Value	262.7
Anderson-Darling Test Statistic	0.278
Anderson-Darling 5% Critical Value	0.755
Kolmogorov-Smirnov Test Statistic	0.0852
Kolmogorov-Smirnov 5% Critical Value	0.13

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	67590
95% Adjusted Gamma UCL	67888

Nonparametric Statistics

95% CLT UCL	66318
95% Jackknife UCL	66472
95% Standard Bootstrap UCL	66106
95% Bootstrap-t UCL	66889
95% Hall's Bootstrap UCL	67034
95% Percentile Bootstrap UCL	66489
95% BCA Bootstrap UCL	66587
95% Chebyshev(Mean, Sd) UCL	78688
97.5% Chebyshev(Mean, Sd) UCL	87285
99% Chebyshev(Mean, Sd) UCL	104172

Potential UCL to Use

Use 95% Approximate Gamma UCL 67590

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Lead - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 44

Raw Statistics

Minimum	16.9
Maximum	22500
Mean	7289
Median	3980
SD	7078
Coefficient of Variation	0.971
Skewness	0.914

Log-transformed Statistics

Minimum of Log Data	2.827
Maximum of Log Data	10.02
Mean of log Data	8.002
SD of log Data	1.884

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.839
Shapiro Wilk Critical Value	0.946

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	9022

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	9134
95% Modified-t UCL (Johnson-1978)	9045

Gamma Distribution Test

k star (bias corrected)	0.651
Theta Star	11202
MLE of Mean	7289
MLE of Standard Deviation	9036
nu star	61.17
Approximate Chi Square Value (.05)	44.18
Adjusted Level of Significance	0.0449
Adjusted Chi Square Value	43.72
Anderson-Darling Test Statistic	0.754
Anderson-Darling 5% Critical Value	0.797
Kolmogorov-Smirnov Test Statistic	0.117
Kolmogorov-Smirnov 5% Critical Value	0.135

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	10092
95% Adjusted Gamma UCL	10197

Potential UCL to Use

Use 95% Approximate Gamma UCL 10092

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.836
Shapiro Wilk Critical Value	0.946

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	45677
95% Chebyshev (MVUE) UCL	43267
97.5% Chebyshev (MVUE) UCL	55062
99% Chebyshev (MVUE) UCL	78231

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	8987
95% Jackknife UCL	9022
95% Standard Bootstrap UCL	8977
95% Bootstrap-t UCL	9188
95% Hall's Bootstrap UCL	9108
95% Percentile Bootstrap UCL	9011
95% BCA Bootstrap UCL	9015
95% Chebyshev(Mean, Sd) UCL	11789
97.5% Chebyshev(Mean, Sd) UCL	13736
99% Chebyshev(Mean, Sd) UCL	17561

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Magnesium - Area 1

General Statistics

Number of Valid Data	46	Number of Detected Data	44
Number of Distinct Detected Data	43	Number of Non-Detect Data	2
		Percent Non-Detects	4.35%

Raw Statistics

Minimum Detected	17.1
Maximum Detected	8440
Mean of Detected	1985
SD of Detected	2280
Minimum Non-Detect	60
Maximum Non-Detect	60

Log-transformed Statistics

Minimum Detected	2.839
Maximum Detected	9.041
Mean of Detected	6.632
SD of Detected	1.736
Minimum Non-Detect	4.094
Maximum Non-Detect	4.094

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.797
5% Shapiro Wilk Critical Value	0.944

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.916
5% Shapiro Wilk Critical Value	0.944

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	1900
SD	2265
95% DL/2 (t) UCL	2461
Maximum Likelihood Estimate(MLE) Method	
Mean	1585
SD	2636
95% MLE (t) UCL	2237
95% MLE (Tiku) UCL	2238

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	6.492
SD	1.823
95% H-Stat (DL/2) UCL	8613
Log ROS Method	
Mean in Log Scale	6.523
SD in Log Scale	1.776
Mean in Original Scale	1902
SD in Original Scale	2263
95% t UCL	2462
95% Percentile Bootstrap UCL	2452
95% BCA Bootstrap UCL	2585

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.609
Theta Star	3260
nu star	53.58
A-D Test Statistic	0.354
5% A-D Critical Value	0.8
K-S Test Statistic	0.8
5% K-S Critical Value	0.14

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	8440
Mean	1899
Median	1080
SD	2266
k star	0.284
Theta star	6684
Nu star	26.14
AppChi2	15.48
95% Gamma Approximate UCL	3205
95% Adjusted Gamma UCL	3261

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	1901
SD	2239
SE of Mean	334
95% KM (t) UCL	2461
95% KM (z) UCL	2450
95% KM (jackknife) UCL	2461
95% KM (bootstrap t) UCL	2528
95% KM (BCA) UCL	2493
95% KM (Percentile Bootstrap) UCL	2452
95% KM (Chebyshev) UCL	3356
97.5% KM (Chebyshev) UCL	3986
99% KM (Chebyshev) UCL	5224

Potential UCLs to Use

95% KM (Chebyshev) UCL	3356

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Manganese - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 47

Raw Statistics

Minimum	16.6
Maximum	7210
Mean	471.6
Median	217
SD	1071
Coefficient of Variation	2.272
Skewness	5.684

Log-transformed Statistics

Minimum of Log Data	2.809
Maximum of Log Data	8.883
Mean of log Data	5.202
SD of log Data	1.366

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.394
Shapiro Wilk Critical Value	0.946

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.967
Shapiro Wilk Critical Value	0.946

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	734

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	867.2
95% Modified-t UCL (Johnson-1978)	755.6

Assuming Lognormal Distribution

95% H-UCL	803.6
95% Chebyshev (MVUE) UCL	940.5
97.5% Chebyshev (MVUE) UCL	1155
99% Chebyshev (MVUE) UCL	1576

Gamma Distribution Test

k star (bias corrected)	0.614
Theta Star	767.6
MLE of Mean	471.6
MLE of Standard Deviation	601.7
nu star	57.75
Approximate Chi Square Value (.05)	41.28
Adjusted Level of Significance	0.0449
Adjusted Chi Square Value	40.84
Anderson-Darling Test Statistic	1.322
Anderson-Darling 5% Critical Value	0.801
Kolmogorov-Smirnov Test Statistic	0.166
Kolmogorov-Smirnov 5% Critical Value	0.135

Data not Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Lognormal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	659.8
95% Adjusted Gamma UCL	666.9

Nonparametric Statistics

95% CLT UCL	728.7
95% Jackknife UCL	734
95% Standard Bootstrap UCL	727.6
95% Bootstrap-t UCL	1228
95% Hall's Bootstrap UCL	1686
95% Percentile Bootstrap UCL	765.6
95% BCA Bootstrap UCL	959.4
95% Chebyshev(Mean, Sd) UCL	1153
97.5% Chebyshev(Mean, Sd) UCL	1448
99% Chebyshev(Mean, Sd) UCL	2027

Potential UCL to Use

Use 95% H-UCL 803.6

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Mercury - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 46

Raw Statistics

Minimum	0.033
Maximum	15.3
Mean	2.13
Median	0.64
SD	3.16
Coefficient of Variation	1.484
Skewness	2.219

Log-transformed Statistics

Minimum of Log Data	-3.411
Maximum of Log Data	2.728
Mean of log Data	-0.34
SD of log Data	1.606

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.69
Shapiro Wilk Critical Value	0.946

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.96
Shapiro Wilk Critical Value	0.946

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	2.903

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	3.047
95% Modified-t UCL (Johnson-1978)	2.928

Assuming Lognormal Distribution

95% H-UCL	5.339
95% Chebyshev (MVUE) UCL	5.805
97.5% Chebyshev (MVUE) UCL	7.261
99% Chebyshev (MVUE) UCL	10.12

Gamma Distribution Test

k star (bias corrected)	0.546
Theta Star	3.898
MLE of Mean	2.13
MLE of Standard Deviation	2.881
nu star	51.36
Approximate Chi Square Value (.05)	35.9
Adjusted Level of Significance	0.0449
Adjusted Chi Square Value	35.49
Anderson-Darling Test Statistic	1.372
Anderson-Darling 5% Critical Value	0.808
Kolmogorov-Smirnov Test Statistic	0.16
Kolmogorov-Smirnov 5% Critical Value	0.136

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	3.047
95% Adjusted Gamma UCL	3.082

Data Distribution

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	2.888
95% Jackknife UCL	2.903
95% Standard Bootstrap UCL	2.862
95% Bootstrap-t UCL	3.136
95% Hall's Bootstrap UCL	3.146
95% Percentile Bootstrap UCL	2.935
95% BCA Bootstrap UCL	3.019
95% Chebyshev(Mean, Sd) UCL	4.138
97.5% Chebyshev(Mean, Sd) UCL	5.008
99% Chebyshev(Mean, Sd) UCL	6.715

Potential UCL to Use

Use 95% Chebyshev (Mean, Sd) UCL 4.138

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Nickel - Area 1

General Statistics

Number of Valid Data	47	Number of Detected Data	41
Number of Distinct Detected Data	40	Number of Non-Detect Data	6
		Percent Non-Detects	12.77%

Raw Statistics

Minimum Detected	2.1
Maximum Detected	50
Mean of Detected	16.4
SD of Detected	12.18
Minimum Non-Detect	20
Maximum Non-Detect	100

Log-transformed Statistics

Minimum Detected	0.742
Maximum Detected	3.912
Mean of Detected	2.5
SD of Detected	0.829
Minimum Non-Detect	2.996
Maximum Non-Detect	4.605

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	47
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.895
5% Shapiro Wilk Critical Value	0.941

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	18.24
SD	13.43
95% DL/2 (t) UCL	21.53
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.963
5% Shapiro Wilk Critical Value	0.941

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	2.602
SD	0.842
95% H-Stat (DL/2) UCL	25.16
Log ROS Method	
Mean in Log Scale	2.488
SD in Log Scale	0.787
Mean in Original Scale	15.85
SD in Original Scale	11.59
95% t UCL	18.69
95% Percentile Bootstrap UCL	18.65
95% BCA Bootstrap UCL	18.9

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.712
Theta Star	9.582
nu star	140.4
A-D Test Statistic	0.244
5% A-D Critical Value	0.762
K-S Test Statistic	0.762
5% K-S Critical Value	0.14

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	2.1
Maximum	50
Mean	16.42
Median	12.5
SD	11.6
k star	1.888
Theta star	8.698
Nu star	177.4
AppChi2	147.6
95% Gamma Approximate UCL	19.74
95% Adjusted Gamma UCL	19.85

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	16.19
SD	11.89
SE of Mean	1.853
95% KM (t) UCL	19.3
95% KM (z) UCL	19.23
95% KM (jackknife) UCL	19.3
95% KM (bootstrap t) UCL	19.77
95% KM (BCA) UCL	19.61
95% KM (Percentile Bootstrap) UCL	19.19
95% KM (Chebyshev) UCL	24.26
97.5% KM (Chebyshev) UCL	27.76
99% KM (Chebyshev) UCL	34.62

Potential UCLs to Use

95% KM (BCA) UCL	19.61

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

pH - Area 1

General Statistics

Number of Valid Observations 48

Number of Distinct Observations 46

Raw Statistics

Minimum	2.98
Maximum	6.5
Mean	4.035
Median	3.79
SD	0.851
Coefficient of Variation	0.211
Skewness	1.164

Log-transformed Statistics

Minimum of Log Data	1.092
Maximum of Log Data	1.872
Mean of log Data	1.375
SD of log Data	0.196

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.892
Shapiro Wilk Critical Value	0.947

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.937
Shapiro Wilk Critical Value	0.947

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	4.241

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	4.259
95% Modified-t UCL (Johnson-1978)	4.244

Assuming Lognormal Distribution

95% H-UCL	4.245
95% Chebyshev (MVUE) UCL	4.534
97.5% Chebyshev (MVUE) UCL	4.751
99% Chebyshev (MVUE) UCL	5.178

Gamma Distribution Test

k star (bias corrected)	23.92
Theta Star	0.169
MLE of Mean	4.035
MLE of Standard Deviation	0.825
nu star	2296
Approximate Chi Square Value (.05)	2186
Adjusted Level of Significance	0.045
Adjusted Chi Square Value	2182
Anderson-Darling Test Statistic	0.929
Anderson-Darling 5% Critical Value	0.748
Kolmogorov-Smirnov Test Statistic	0.121
Kolmogorov-Smirnov 5% Critical Value	0.128

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	4.238
95% Adjusted Gamma UCL	4.245

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	4.237
95% Jackknife UCL	4.241
95% Standard Bootstrap UCL	4.239
95% Bootstrap-t UCL	4.26
95% Hall's Bootstrap UCL	4.272
95% Percentile Bootstrap UCL	4.241
95% BCA Bootstrap UCL	4.242
95% Chebyshev(Mean, Sd) UCL	4.57
97.5% Chebyshev(Mean, Sd) UCL	4.802
99% Chebyshev(Mean, Sd) UCL	5.257

Potential UCL to Use

Use 95% Approximate Gamma UCL 4.238

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Potassium - Area 1

General Statistics

Number of Valid Data	46	Number of Detected Data	42
Number of Distinct Detected Data	37	Number of Non-Detect Data	4
		Percent Non-Detects	8.70%

Raw Statistics

Minimum Detected	261
Maximum Detected	4280
Mean of Detected	1648
SD of Detected	925.4
Minimum Non-Detect	1000
Maximum Non-Detect	2500

Log-transformed Statistics

Minimum Detected	5.565
Maximum Detected	8.362
Mean of Detected	7.243
SD of Detected	0.611
Minimum Non-Detect	6.908
Maximum Non-Detect	7.824

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	41
Number treated as Detected	5
Single DL Non-Detect Percentage	89.13%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.876
5% Shapiro Wilk Critical Value	0.942

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	1597
SD	904.1
95% DL/2 (t) UCL	1821
Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.921
5% Shapiro Wilk Critical Value	0.942

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	7.214
SD	0.603
95% H-Stat (DL/2) UCL	1943
Log ROS Method	
Mean in Log Scale	7.219
SD in Log Scale	0.599
Mean in Original Scale	1604
SD in Original Scale	904.3
95% t UCL	1827
95% Percentile Bootstrap UCL	1830
95% BCA Bootstrap UCL	1849

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	2.995
Theta Star	550.2
nu star	251.6
A-D Test Statistic	0.498
5% A-D Critical Value	0.755
K-S Test Statistic	0.755
5% K-S Critical Value	0.137

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	261
Maximum	4280
Mean	1633
Median	1655
SD	898.6
k star	3.155
Theta star	517.6
Nu star	290.2
AppChi2	251.8
95% Gamma Approximate UCL	1882
95% Adjusted Gamma UCL	1891

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	1607
SD	901.6
SE of Mean	136.6
95% KM (t) UCL	1836
95% KM (z) UCL	1832
95% KM (jackknife) UCL	1836
95% KM (bootstrap t) UCL	1855
95% KM (BCA) UCL	1836
95% KM (Percentile Bootstrap) UCL	1830
95% KM (Chebyshev) UCL	2202
97.5% KM (Chebyshev) UCL	2460
99% KM (Chebyshev) UCL	2966

Potential UCLs to Use

95% KM (BCA) UCL	1836

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Selenium - Area 1

General Statistics

Number of Valid Data	46	Number of Detected Data	28
Number of Distinct Detected Data	25	Number of Non-Detect Data	18
		Percent Non-Detects	39.13%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.3	Minimum Detected	-1.204
Maximum Detected	6.77	Maximum Detected	1.913
Mean of Detected	2.162	Mean of Detected	0.555
SD of Detected	1.466	SD of Detected	0.691
Minimum Non-Detect	0.6	Minimum Non-Detect	-0.511
Maximum Non-Detect	6000	Maximum Non-Detect	8.7

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

		Number treated as Non-Detect	46
		Number treated as Detected	0
		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.876	Shapiro Wilk Test Statistic	0.973
5% Shapiro Wilk Critical Value	0.924	5% Shapiro Wilk Critical Value	0.924
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	197.2	Mean	0.662
SD	748.5	SD	2.158
95% DL/2 (t) UCL	382.6	95% H-Stat (DL/2) UCL	67.54
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	0.155
		SD in Log Scale	0.821
		Mean in Original Scale	1.608
		SD in Original Scale	1.367
		95% t UCL	1.946
		95% Percentile Bootstrap UCL	1.945
		95% BCA Bootstrap UCL	1.987

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	2.227	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	0.971		
nu star	124.7		
A-D Test Statistic	0.473	Nonparametric Statistics	
5% A-D Critical Value	0.756	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.756	Mean	1.613
5% K-S Critical Value	0.167	SD	1.436
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.228
		95% KM (t) UCL	1.997
Assuming Gamma Distribution		95% KM (z) UCL	1.989
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1.957
Minimum	1E-12	95% KM (bootstrap t) UCL	2.051
Maximum	6.77	95% KM (BCA) UCL	2.128
Mean	2.016	95% KM (Percentile Bootstrap) UCL	2.059
Median	1.627	95% KM (Chebyshev) UCL	2.608
SD	1.329	97.5% KM (Chebyshev) UCL	3.039
k star	0.719	99% KM (Chebyshev) UCL	3.884
Theta star	2.802		
Nu star	66.19	Potential UCLs to Use	
AppChi2	48.46	95% KM (Percentile Bootstrap) UCL	2.059
95% Gamma Approximate UCL	2.753		
95% Adjusted Gamma UCL	2.781		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Silver - Area 1

General Statistics

Number of Valid Observations 46

Number of Distinct Observations 45

Raw Statistics

Minimum	0.56
Maximum	415
Mean	94.63
Median	52.5
SD	107.4
Coefficient of Variation	1.135
Skewness	1.534

Log-transformed Statistics

Minimum of Log Data	-0.58
Maximum of Log Data	6.028
Mean of log Data	3.668
SD of log Data	1.713

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.792
Shapiro Wilk Critical Value	0.945

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.889
Shapiro Wilk Critical Value	0.945

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	121.2

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	124.5
95% Modified-t UCL (Johnson-1978)	121.8

Assuming Lognormal Distribution

95% H-UCL	384.3
95% Chebyshev (MVUE) UCL	397.7
97.5% Chebyshev (MVUE) UCL	501.4
99% Chebyshev (MVUE) UCL	705

Gamma Distribution Test

k star (bias corrected)	0.657
Theta Star	144
MLE of Mean	94.63
MLE of Standard Deviation	116.7
nu star	60.45
Approximate Chi Square Value (.05)	43.57
Adjusted Level of Significance	0.0448
Adjusted Chi Square Value	43.1
Anderson-Darling Test Statistic	0.339
Anderson-Darling 5% Critical Value	0.796
Kolmogorov-Smirnov Test Statistic	0.0709
Kolmogorov-Smirnov 5% Critical Value	0.136

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	131.3
95% Adjusted Gamma UCL	132.7

Nonparametric Statistics

95% CLT UCL	120.7
95% Jackknife UCL	121.2
95% Standard Bootstrap UCL	120.4
95% Bootstrap-t UCL	126.9
95% Hall's Bootstrap UCL	126
95% Percentile Bootstrap UCL	119.7
95% BCA Bootstrap UCL	126
95% Chebyshev(Mean, Sd) UCL	163.7
97.5% Chebyshev(Mean, Sd) UCL	193.5
99% Chebyshev(Mean, Sd) UCL	252.2

Potential UCL to Use

Use 95% Approximate Gamma UCL 131.3

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Sodium - Area 1

General Statistics

Number of Valid Data	46	Number of Detected Data	20
Number of Distinct Detected Data	20	Number of Non-Detect Data	26
		Percent Non-Detects	56.52%

Raw Statistics

Minimum Detected	55
Maximum Detected	1130
Mean of Detected	382.1
SD of Detected	319.6
Minimum Non-Detect	50
Maximum Non-Detect	500

Log-transformed Statistics

Minimum Detected	4.007
Maximum Detected	7.03
Mean of Detected	5.596
SD of Detected	0.886
Minimum Non-Detect	3.912
Maximum Non-Detect	6.215

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	41
Number treated as Detected	5
Single DL Non-Detect Percentage	89.13%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.854
5% Shapiro Wilk Critical Value	0.905

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	219.4
SD	264.9
95% DL/2 (t) UCL	285
Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.959
5% Shapiro Wilk Critical Value	0.905

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	4.653
SD	1.298
95% H-Stat (DL/2) UCL	407.4
Log ROS Method	
Mean in Log Scale	4.455
SD in Log Scale	1.353
Mean in Original Scale	196.7
SD in Original Scale	268.5
95% t UCL	263.1
95% Percentile Bootstrap UCL	263.9
95% BCA Bootstrap UCL	274.7

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.373
Theta Star	278.2
nu star	54.93
A-D Test Statistic	0.43
5% A-D Critical Value	0.757
K-S Test Statistic	0.757
5% K-S Critical Value	0.197

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	1205
Mean	417.6
Median	346.7
SD	323
k star	0.366
Theta star	1141
Nu star	33.66
AppChi2	21.39
95% Gamma Approximate UCL	657.1
95% Adjusted Gamma UCL	667

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	210.3
SD	260.9
SE of Mean	40.35
95% KM (t) UCL	278.1
95% KM (z) UCL	276.7
95% KM (jackknife) UCL	269
95% KM (bootstrap t) UCL	286.7
95% KM (BCA) UCL	306.9
95% KM (Percentile Bootstrap) UCL	288.3
95% KM (Chebyshev) UCL	386.2
97.5% KM (Chebyshev) UCL	462.3
99% KM (Chebyshev) UCL	611.8

Potential UCLs to Use

95% KM (t) UCL	278.1

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Thallium - Area 1

General Statistics

Number of Valid Data	46	Number of Detected Data	14
Number of Distinct Detected Data	12	Number of Non-Detect Data	32
		Percent Non-Detects	69.57%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	1.5	Minimum Detected	0.405
Maximum Detected	15.8	Maximum Detected	2.76
Mean of Detected	4.839	Mean of Detected	1.424
SD of Detected	3.395	SD of Detected	0.543
Minimum Non-Detect	0.8	Minimum Non-Detect	-0.223
Maximum Non-Detect	10	Maximum Non-Detect	2.303

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	45
Number treated as Detected	1
Single DL Non-Detect Percentage	97.83%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.656	Shapiro Wilk Test Statistic	0.912
5% Shapiro Wilk Critical Value	0.874	5% Shapiro Wilk Critical Value	0.874
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	3.308	Mean	0.897
SD	2.506	SD	0.866
95% DL/2 (t) UCL	3.929	95% H-Stat (DL/2) UCL	4.735
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	0.756
		SD in Log Scale	0.721
		Mean in Original Scale	2.795
		SD in Original Scale	2.526
		95% t UCL	3.421
		95% Percentile Bootstrap UCL	3.449
		95% BCA Bootstrap UCL	3.592

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	2.747	Data appear Lognormal at 5% Significance Level	
Theta Star	1.762		
nu star	76.91		
A-D Test Statistic	0.8	Nonparametric Statistics	
5% A-D Critical Value	0.741	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.741	Mean	2.978
5% K-S Critical Value	0.23	SD	2.42
Data not Gamma Distributed at 5% Significance Level		SE of Mean	0.413
		95% KM (t) UCL	3.671
Assuming Gamma Distribution		95% KM (z) UCL	3.657
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	3.583
Minimum	1.207	95% KM (bootstrap t) UCL	3.842
Maximum	15.8	95% KM (BCA) UCL	4.351
Mean	5.468	95% KM (Percentile Bootstrap) UCL	4.05
Median	5.12	95% KM (Chebyshev) UCL	4.777
SD	2.764	97.5% KM (Chebyshev) UCL	5.556
k star	3.758	99% KM (Chebyshev) UCL	7.085
Theta star	1.455		
Nu star	345.7	Potential UCLs to Use	
AppChi2	303.7	95% KM (t) UCL	3.671
95% Gamma Approximate UCL	6.226	95% KM (% Bootstrap) UCL	4.05
95% Adjusted Gamma UCL	6.253		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Vanadium - Area 1

General Statistics

Number of Valid Data	46	Number of Detected Data	44
Number of Distinct Detected Data	44	Number of Non-Detect Data	2
		Percent Non-Detects	4.35%

Raw Statistics

Minimum Detected	0.92
Maximum Detected	104
Mean of Detected	31.16
SD of Detected	25.87
Minimum Non-Detect	5
Maximum Non-Detect	5

Log-transformed Statistics

Minimum Detected	-0.0834
Maximum Detected	4.644
Mean of Detected	2.987
SD of Detected	1.134
Minimum Non-Detect	1.609
Maximum Non-Detect	1.609

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.875
5% Shapiro Wilk Critical Value	0.944

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.908
5% Shapiro Wilk Critical Value	0.944

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	29.91
SD	25.97
95% DL/2 (t) UCL	36.34
Maximum Likelihood Estimate(MLE) Method	
Mean	27
SD	29.92
95% MLE (t) UCL	34.41
95% MLE (Tiku) UCL	34.53

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	2.897
SD	1.188
95% H-Stat (DL/2) UCL	57.41
Log ROS Method	
Mean in Log Scale	2.916
SD in Log Scale	1.159
Mean in Original Scale	29.98
SD in Original Scale	25.9
95% t UCL	36.39
95% Percentile Bootstrap UCL	36.23
95% BCA Bootstrap UCL	36.9

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.175
Theta Star	26.51
nu star	103.4
A-D Test Statistic	0.531
5% A-D Critical Value	0.772
K-S Test Statistic	0.772
5% K-S Critical Value	0.137

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	104
Mean	29.83
Median	25.1
SD	26.06
k star	0.529
Theta star	56.42
Nu star	48.64
AppChi2	33.63
95% Gamma Approximate UCL	43.14
95% Adjusted Gamma UCL	43.67

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	29.91
SD	25.69
SE of Mean	3.831
95% KM (t) UCL	36.35
95% KM (z) UCL	36.21
95% KM (jackknife) UCL	36.34
95% KM (bootstrap t) UCL	37.24
95% KM (BCA) UCL	36.82
95% KM (Percentile Bootstrap) UCL	36.43
95% KM (Chebyshev) UCL	46.61
97.5% KM (Chebyshev) UCL	53.84
99% KM (Chebyshev) UCL	68.03

Potential UCLs to Use

95% KM (Chebyshev) UCL 46.61

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Zinc - Area 1

General Statistics

Number of Valid Observations 47

Number of Distinct Observations 47

Raw Statistics

Minimum 32.5
Maximum 18500
Mean 1705
Median 452
SD 3907
Coefficient of Variation 2.291
Skewness 3.626

Log-transformed Statistics

Minimum of Log Data 3.481
Maximum of Log Data 9.826
Mean of log Data 6.228
SD of log Data 1.476

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic 0.431
Shapiro Wilk Critical Value 0.946
Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic 0.964
Shapiro Wilk Critical Value 0.946
Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 2662

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995) 2964
95% Modified-t UCL (Johnson-1978) 2712

Assuming Lognormal Distribution

95% H-UCL 2822
95% Chebyshev (MVUE) UCL 3209
97.5% Chebyshev (MVUE) UCL 3976
99% Chebyshev (MVUE) UCL 5482

Gamma Distribution Test

k star (bias corrected) 0.501
Theta Star 3402
MLE of Mean 1705
MLE of Standard Deviation 2408
nu star 47.11
Approximate Chi Square Value (.05) 32.36
Adjusted Level of Significance 0.0449
Adjusted Chi Square Value 31.97

Anderson-Darling Test Statistic 2.82
Anderson-Darling 5% Critical Value 0.812
Kolmogorov-Smirnov Test Statistic 0.196
Kolmogorov-Smirnov 5% Critical Value 0.136
Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL 2482
95% Adjusted Gamma UCL 2512

Data Distribution

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL 2642
95% Jackknife UCL 2662
95% Standard Bootstrap UCL 2639
95% Bootstrap-t UCL 3782
95% Hall's Bootstrap UCL 2865
95% Percentile Bootstrap UCL 2762
95% BCA Bootstrap UCL 3001
95% Chebyshev(Mean, Sd) UCL 4189
97.5% Chebyshev(Mean, Sd) UCL 5264
99% Chebyshev(Mean, Sd) UCL 7375

Potential UCL to Use

Use 95% H-UCL 2822

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\Area 2 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum - Area 2

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 12

Raw Statistics

Minimum	2600
Maximum	28900
Mean	12193
Median	10400
SD	7650
Coefficient of Variation	0.627
Skewness	1.033

Log-transformed Statistics

Minimum of Log Data	7.863
Maximum of Log Data	10.27
Mean of log Data	9.223
SD of log Data	0.651

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.897
Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.966
Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 15813

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	16159
95% Modified-t UCL (Johnson-1978)	15908

Assuming Lognormal Distribution

95% H-UCL	18889
95% Chebyshev (MVUE) UCL	22036
97.5% Chebyshev (MVUE) UCL	26250
99% Chebyshev (MVUE) UCL	34526

Gamma Distribution Test

k star (bias corrected)	2.289
Theta Star	5327
MLE of Mean	12193
MLE of Standard Deviation	8059
nu star	64.09
Approximate Chi Square Value (.05)	46.67
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	44.71
Anderson-Darling Test Statistic	0.295
Anderson-Darling 5% Critical Value	0.743
Kolmogorov-Smirnov Test Statistic	0.158
Kolmogorov-Smirnov 5% Critical Value	0.231

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	16743
95% Adjusted Gamma UCL	17480

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	15556
95% Jackknife UCL	15813
95% Standard Bootstrap UCL	15458
95% Bootstrap-t UCL	16764
95% Hall's Bootstrap UCL	16976
95% Percentile Bootstrap UCL	15471
95% BCA Bootstrap UCL	15793
95% Chebyshev(Mean, Sd) UCL	21104
97.5% Chebyshev(Mean, Sd) UCL	24961
99% Chebyshev(Mean, Sd) UCL	32535

Potential UCL to Use

Use 95% Student's-t UCL 15813

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Antimony - Area 2

General Statistics

Number of Valid Data	28	Number of Detected Data	22
Number of Distinct Detected Data	22	Number of Non-Detect Data	6
		Percent Non-Detects	21.43%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.4	Minimum Detected	-0.916
Maximum Detected	280	Maximum Detected	5.635
Mean of Detected	27.83	Mean of Detected	1.926
SD of Detected	61.73	SD of Detected	1.704
Minimum Non-Detect	1.6	Minimum Non-Detect	0.47
Maximum Non-Detect	400	Maximum Non-Detect	5.991

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

		Number treated as Non-Detect	28
		Number treated as Detected	0
		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.472	Shapiro Wilk Test Statistic	0.974
5% Shapiro Wilk Critical Value	0.911	5% Shapiro Wilk Critical Value	0.911
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	36.36	Mean	2.196
SD	65.28	SD	1.827
95% DL/2 (t) UCL	57.37	95% H-Stat (DL/2) UCL	170.1
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	1.76
		SD in Log Scale	1.584
		Mean in Original Scale	22.77
		SD in Original Scale	55.34
		95% t UCL	40.59
		95% Percentile Bootstrap UCL	42.66
		95% BCA Bootstrap UCL	53.68

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.427	Data Follow Appr. Gamma Distribution at 5% Significance Level	
Theta Star	65.13		
nu star	18.8		
A-D Test Statistic	1.074	**Nonparametric Statistics**	
5% A-D Critical Value	0.813	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.813	Mean	24.07
5% K-S Critical Value	0.197	SD	55.37
Data follow Appr. Gamma Distribution at 5% Significance Level		SE of Mean	10.98
		95% KM (t) UCL	42.77
Assuming Gamma Distribution		95% KM (z) UCL	42.13
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	42.71
Minimum	1E-12	95% KM (bootstrap t) UCL	87.88
Maximum	280	95% KM (BCA) UCL	44.31
Mean	24.61	95% KM (Percentile Bootstrap) UCL	44.54
Median	7.3	95% KM (Chebyshev) UCL	71.92
SD	55.27	97.5% KM (Chebyshev) UCL	92.62
k star	0.179	99% KM (Chebyshev) UCL	133.3
Theta star	137.2		
Nu star	10.05	Potential UCLs to Use	
AppChi2	3.971	95% KM (Chebyshev) UCL	71.92
95% Gamma Approximate UCL	62.26		
95% Adjusted Gamma UCL	66.16		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Arsenic - Area 2

General Statistics

Number of Valid Observations 28

Number of Distinct Observations 26

Raw Statistics

Minimum	38.3
Maximum	73400
Mean	15484
Median	7415
SD	18771
Coefficient of Variation	1.212
Skewness	1.483

Log-transformed Statistics

Minimum of Log Data	3.645
Maximum of Log Data	11.2
Mean of log Data	8.289
SD of log Data	2.285

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.804
Shapiro Wilk Critical Value	0.924

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.892
Shapiro Wilk Critical Value	0.924

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	21526

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	22381
95% Modified-t UCL (Johnson-1978)	21692

Assuming Lognormal Distribution

95% H-UCL	365187
95% Chebyshev (MVUE) UCL	145594
97.5% Chebyshev (MVUE) UCL	190769
99% Chebyshev (MVUE) UCL	279506

Gamma Distribution Test

k star (bias corrected)	0.445
Theta Star	34779
MLE of Mean	15484
MLE of Standard Deviation	23206
nu star	24.93
Approximate Chi Square Value (.05)	14.56
Adjusted Level of Significance	0.0404
Adjusted Chi Square Value	14.07
Anderson-Darling Test Statistic	0.389
Anderson-Darling 5% Critical Value	0.816
Kolmogorov-Smirnov Test Statistic	0.108
Kolmogorov-Smirnov 5% Critical Value	0.176

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	26515
95% Adjusted Gamma UCL	27439

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	21319
95% Jackknife UCL	21526
95% Standard Bootstrap UCL	21174
95% Bootstrap-t UCL	23005
95% Hall's Bootstrap UCL	23333
95% Percentile Bootstrap UCL	21591
95% BCA Bootstrap UCL	22308
95% Chebyshev(Mean, Sd) UCL	30947
97.5% Chebyshev(Mean, Sd) UCL	37637
99% Chebyshev(Mean, Sd) UCL	50780

Potential UCL to Use

Use 95% Adjusted Gamma UCL 27439

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Barium - Area 2

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 13

Raw Statistics

Minimum	17
Maximum	110
Mean	50.21
Median	52.6
SD	25.98
Coefficient of Variation	0.517
Skewness	0.877

Log-transformed Statistics

Minimum of Log Data	2.833
Maximum of Log Data	4.7
Mean of log Data	3.79
SD of log Data	0.531

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.907
Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.945
Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 62.51

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	63.37
95% Modified-t UCL (Johnson-1978)	62.78

Assuming Lognormal Distribution

95% H-UCL	68.9
95% Chebyshev (MVUE) UCL	82.51
97.5% Chebyshev (MVUE) UCL	96.41
99% Chebyshev (MVUE) UCL	123.7

Gamma Distribution Test

k star (bias corrected)	3.283
Theta Star	15.3
MLE of Mean	50.21
MLE of Standard Deviation	27.71
nu star	91.92
Approximate Chi Square Value (.05)	70.81
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	68.35
Anderson-Darling Test Statistic	0.472
Anderson-Darling 5% Critical Value	0.74
Kolmogorov-Smirnov Test Statistic	0.197
Kolmogorov-Smirnov 5% Critical Value	0.23

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	65.18
95% Adjusted Gamma UCL	67.52

Nonparametric Statistics

95% CLT UCL	61.63
95% Jackknife UCL	62.51
95% Standard Bootstrap UCL	61.18
95% Bootstrap-t UCL	64.87
95% Hall's Bootstrap UCL	64.96
95% Percentile Bootstrap UCL	61.75
95% BCA Bootstrap UCL	61.94
95% Chebyshev(Mean, Sd) UCL	80.48
97.5% Chebyshev(Mean, Sd) UCL	93.57
99% Chebyshev(Mean, Sd) UCL	119.3

Potential UCL to Use

Use 95% Student's-t UCL 62.51

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Beryllium - Area 2

General Statistics

Number of Valid Observations 11

Number of Distinct Observations 11

Raw Statistics

Minimum	0.041
Maximum	0.21
Mean	0.0994
Median	0.082
SD	0.0532
Coefficient of Variation	0.535
Skewness	1.424

Log-transformed Statistics

Minimum of Log Data	-3.194
Maximum of Log Data	-1.561
Mean of log Data	-2.42
SD of log Data	0.481

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.81
Shapiro Wilk Critical Value	0.85

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.93
Shapiro Wilk Critical Value	0.85

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	0.128

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	0.133
95% Modified-t UCL (Johnson-1978)	0.13

Assuming Lognormal Distribution

95% H-UCL	0.138
95% Chebyshev (MVUE) UCL	0.162
97.5% Chebyshev (MVUE) UCL	0.19
99% Chebyshev (MVUE) UCL	0.244

Gamma Distribution Test

k star (bias corrected)	3.448
Theta Star	0.0288
MLE of Mean	0.0994
MLE of Standard Deviation	0.0535
nu star	75.85
Approximate Chi Square Value (.05)	56.79
Adjusted Level of Significance	0.0278
Adjusted Chi Square Value	54.11
Anderson-Darling Test Statistic	0.606
Anderson-Darling 5% Critical Value	0.732
Kolmogorov-Smirnov Test Statistic	0.214
Kolmogorov-Smirnov 5% Critical Value	0.256

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	0.133
95% Adjusted Gamma UCL	0.139

Nonparametric Statistics

95% CLT UCL	0.126
95% Jackknife UCL	0.128
95% Standard Bootstrap UCL	0.125
95% Bootstrap-t UCL	0.163
95% Hall's Bootstrap UCL	0.317
95% Percentile Bootstrap UCL	0.126
95% BCA Bootstrap UCL	0.131
95% Chebyshev(Mean, Sd) UCL	0.169
97.5% Chebyshev(Mean, Sd) UCL	0.2
99% Chebyshev(Mean, Sd) UCL	0.259

Potential UCL to Use

Use 95% Approximate Gamma UCL 0.133

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Cadmium - Area 2

General Statistics

Number of Valid Data	28	Number of Detected Data	19
Number of Distinct Detected Data	19	Number of Non-Detect Data	9
		Percent Non-Detects	32.14%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.086	Minimum Detected	-2.453
Maximum Detected	4.23	Maximum Detected	1.442
Mean of Detected	0.952	Mean of Detected	-0.56
SD of Detected	1.001	SD of Detected	1.112
Minimum Non-Detect	0.3	Minimum Non-Detect	-1.204
Maximum Non-Detect	50	Maximum Non-Detect	3.912

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

		Number treated as Non-Detect	28
		Number treated as Detected	0
		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.78	Shapiro Wilk Test Statistic	0.96
5% Shapiro Wilk Critical Value	0.901	5% Shapiro Wilk Critical Value	0.901
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	3.664	Mean	0.136
SD	6.127	SD	1.612
95% DL/2 (t) UCL	5.636	95% H-Stat (DL/2) UCL	11.67
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	-0.634
		SD in Log Scale	0.988
		Mean in Original Scale	0.822
		SD in Original Scale	0.86
		95% t UCL	1.099
		95% Percentile Bootstrap UCL	1.107
		95% BCA Bootstrap UCL	1.192

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.975	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	0.977		
nu star	37.03		
A-D Test Statistic	0.234	**Nonparametric Statistics**	
5% A-D Critical Value	0.766	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.766	Mean	0.91
5% K-S Critical Value	0.204	SD	0.967
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	0.222
		95% KM (t) UCL	1.288
Assuming Gamma Distribution		95% KM (z) UCL	1.275
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1.291
Minimum	1E-12	95% KM (bootstrap t) UCL	1.497
Maximum	4.23	95% KM (BCA) UCL	1.293
Mean	0.937	95% KM (Percentile Bootstrap) UCL	1.293
Median	0.825	95% KM (Chebyshev) UCL	1.878
SD	0.875	97.5% KM (Chebyshev) UCL	2.298
k star	0.451	99% KM (Chebyshev) UCL	3.121
Theta star	2.078		
Nu star	25.25	Potential UCLs to Use	
AppChi2	14.8	95% KM (BCA) UCL	1.293
95% Gamma Approximate UCL	1.598		
95% Adjusted Gamma UCL	1.653		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Calcium - Area 2

General Statistics

Number of Valid Observations 11

Number of Distinct Observations 11

Raw Statistics

Minimum	300
Maximum	2300
Mean	689.1
Median	570
SD	545.7
Coefficient of Variation	0.792
Skewness	3.063

Log-transformed Statistics

Minimum of Log Data	5.704
Maximum of Log Data	7.741
Mean of log Data	6.38
SD of log Data	0.508

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.544
Shapiro Wilk Critical Value	0.85

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	987.3

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1122
95% Modified-t UCL (Johnson-1978)	1013

Gamma Distribution Test

k star (bias corrected)	2.515
Theta Star	274
MLE of Mean	689.1
MLE of Standard Deviation	434.5
nu star	55.33
Approximate Chi Square Value (.05)	39.23
Adjusted Level of Significance	0.0278
Adjusted Chi Square Value	37.03
Anderson-Darling Test Statistic	1.399
Anderson-Darling 5% Critical Value	0.733
Kolmogorov-Smirnov Test Statistic	0.357
Kolmogorov-Smirnov 5% Critical Value	0.257

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	971.8
95% Adjusted Gamma UCL	1029

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.781
Shapiro Wilk Critical Value	0.85

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	953.5
95% Chebyshev (MVUE) UCL	1114
97.5% Chebyshev (MVUE) UCL	1310
99% Chebyshev (MVUE) UCL	1694

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL	959.7
95% Jackknife UCL	987.3
95% Standard Bootstrap UCL	949.2
95% Bootstrap-t UCL	1710
95% Hall's Bootstrap UCL	2185
95% Percentile Bootstrap UCL	996.4
95% BCA Bootstrap UCL	1162
95% Chebyshev(Mean, Sd) UCL	1406
97.5% Chebyshev(Mean, Sd) UCL	1717
99% Chebyshev(Mean, Sd) UCL	2326

Potential UCL to Use

Use 95% Chebyshev (Mean, Sd) UCL 1406

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Chromium - Area 2

General Statistics

Number of Valid Data	28	Number of Detected Data	26
Number of Distinct Detected Data	25	Number of Non-Detect Data	2
		Percent Non-Detects	7.14%

Raw Statistics

Minimum Detected	1.7
Maximum Detected	217
Mean of Detected	24.27
SD of Detected	43.28
Minimum Non-Detect	5
Maximum Non-Detect	30

Log-transformed Statistics

Minimum Detected	0.531
Maximum Detected	5.38
Mean of Detected	2.445
SD of Detected	1.128
Minimum Non-Detect	1.609
Maximum Non-Detect	3.401

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	23
Number treated as Detected	5
Single DL Non-Detect Percentage	82.14%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.502
5% Shapiro Wilk Critical Value	0.92

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	23.16
SD	41.88
95% DL/2 (t) UCL	36.65
Maximum Likelihood Estimate(MLE) Method	N/A

MLE yields a negative mean

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.926
5% Shapiro Wilk Critical Value	0.92

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	2.4
SD	1.124
95% H-Stat (DL/2) UCL	36.5
Log ROS Method	
Mean in Log Scale	2.385
SD in Log Scale	1.116
Mean in Original Scale	22.94
SD in Original Scale	41.94
95% t UCL	36.44
95% Percentile Bootstrap UCL	37.06
95% BCA Bootstrap UCL	48.26

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.731
Theta Star	33.19
nu star	38.03
A-D Test Statistic	1.67
5% A-D Critical Value	0.782
K-S Test Statistic	0.782
5% K-S Critical Value	0.178

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	217
Mean	23.09
Median	6.95
SD	41.93
k star	0.361
Theta star	63.94
Nu star	20.22
AppChi2	11.01
95% Gamma Approximate UCL	42.38
95% Adjusted Gamma UCL	44.06

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	23.03
SD	41.18
SE of Mean	7.942
95% KM (t) UCL	36.56
95% KM (z) UCL	36.1
95% KM (jackknife) UCL	36.54
95% KM (bootstrap t) UCL	59.87
95% KM (BCA) UCL	38.43
95% KM (Percentile Bootstrap) UCL	36.96
95% KM (Chebyshev) UCL	57.65
97.5% KM (Chebyshev) UCL	72.63
99% KM (Chebyshev) UCL	102.1

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	72.63

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Cobalt - Area 2

General Statistics

Number of Valid Observations 11

Number of Distinct Observations 11

Raw Statistics

Minimum	4.2
Maximum	78
Mean	25.51
Median	9
SD	26.29
Coefficient of Variation	1.031
Skewness	1.183

Log-transformed Statistics

Minimum of Log Data	1.435
Maximum of Log Data	4.357
Mean of log Data	2.727
SD of log Data	1.073

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.799
Shapiro Wilk Critical Value	0.85

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.894
Shapiro Wilk Critical Value	0.85

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	39.88

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	41.57
95% Modified-t UCL (Johnson-1978)	40.35

Assuming Lognormal Distribution

95% H-UCL	78.95
95% Chebyshev (MVUE) UCL	63.21
97.5% Chebyshev (MVUE) UCL	79.63
99% Chebyshev (MVUE) UCL	111.9

Gamma Distribution Test

k star (bias corrected)	0.871
Theta Star	29.3
MLE of Mean	25.51
MLE of Standard Deviation	27.34
nu star	19.15
Approximate Chi Square Value (.05)	10.23
Adjusted Level of Significance	0.0278
Adjusted Chi Square Value	9.183
Anderson-Darling Test Statistic	0.646
Anderson-Darling 5% Critical Value	0.749
Kolmogorov-Smirnov Test Statistic	0.271
Kolmogorov-Smirnov 5% Critical Value	0.262

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	47.76
95% Adjusted Gamma UCL	53.2

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	38.55
95% Jackknife UCL	39.88
95% Standard Bootstrap UCL	38.07
95% Bootstrap-t UCL	47.35
95% Hall's Bootstrap UCL	44.25
95% Percentile Bootstrap UCL	38.25
95% BCA Bootstrap UCL	41.06
95% Chebyshev(Mean, Sd) UCL	60.06
97.5% Chebyshev(Mean, Sd) UCL	75.02
99% Chebyshev(Mean, Sd) UCL	104.4

Potential UCL to Use

Use 95% Approximate Gamma UCL 47.76

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Copper - Area 2

General Statistics

Number of Valid Observations 28

Number of Distinct Observations 28

Raw Statistics

Minimum	8
Maximum	2460
Mean	501.4
Median	300
SD	592.1
Coefficient of Variation	1.181
Skewness	1.97

Log-transformed Statistics

Minimum of Log Data	2.079
Maximum of Log Data	7.808
Mean of log Data	5.522
SD of log Data	1.346

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.76
Shapiro Wilk Critical Value	0.924

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.972
Shapiro Wilk Critical Value	0.924

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	692

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	730
95% Modified-t UCL (Johnson-1978)	698.9

Assuming Lognormal Distribution

95% H-UCL	1315
95% Chebyshev (MVUE) UCL	1375
97.5% Chebyshev (MVUE) UCL	1718
99% Chebyshev (MVUE) UCL	2390

Gamma Distribution Test

k star (bias corrected)	0.78
Theta Star	643
MLE of Mean	501.4
MLE of Standard Deviation	567.8
nu star	43.67
Approximate Chi Square Value (.05)	29.52
Adjusted Level of Significance	0.0404
Adjusted Chi Square Value	28.8
Anderson-Darling Test Statistic	0.231
Anderson-Darling 5% Critical Value	0.78
Kolmogorov-Smirnov Test Statistic	0.078
Kolmogorov-Smirnov 5% Critical Value	0.171

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	741.9
95% Adjusted Gamma UCL	760.4

Nonparametric Statistics

95% CLT UCL	685.5
95% Jackknife UCL	692
95% Standard Bootstrap UCL	688.6
95% Bootstrap-t UCL	767.6
95% Hall's Bootstrap UCL	753.2
95% Percentile Bootstrap UCL	687
95% BCA Bootstrap UCL	737.3
95% Chebyshev(Mean, Sd) UCL	989.1
97.5% Chebyshev(Mean, Sd) UCL	1200
99% Chebyshev(Mean, Sd) UCL	1615

Potential UCL to Use

Use 95% Approximate Gamma UCL 741.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Iron - Area 2

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 14

Raw Statistics

Minimum	17800
Maximum	200000
Mean	80636
Median	79500
SD	53237
Coefficient of Variation	0.66
Skewness	0.796

Log-transformed Statistics

Minimum of Log Data	9.787
Maximum of Log Data	12.21
Mean of log Data	11.06
SD of log Data	0.77

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.923
Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.925
Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 105833

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	107275
95% Modified-t UCL (Johnson-1978)	106338

Assuming Lognormal Distribution

95% H-UCL	143293
95% Chebyshev (MVUE) UCL	161856
97.5% Chebyshev (MVUE) UCL	195962
99% Chebyshev (MVUE) UCL	262955

Gamma Distribution Test

k star (bias corrected)	1.798
Theta Star	44837
MLE of Mean	80636
MLE of Standard Deviation	60128
nu star	50.36
Approximate Chi Square Value (.05)	35.06
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	33.37
Anderson-Darling Test Statistic	0.376
Anderson-Darling 5% Critical Value	0.745
Kolmogorov-Smirnov Test Statistic	0.19
Kolmogorov-Smirnov 5% Critical Value	0.231

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	104039
95% Jackknife UCL	105833
95% Standard Bootstrap UCL	103158
95% Bootstrap-t UCL	110925
95% Hall's Bootstrap UCL	109741
95% Percentile Bootstrap UCL	103557
95% BCA Bootstrap UCL	105486
95% Chebyshev(Mean, Sd) UCL	142655
97.5% Chebyshev(Mean, Sd) UCL	169491
99% Chebyshev(Mean, Sd) UCL	222205

Assuming Gamma Distribution

95% Approximate Gamma UCL	115810
95% Adjusted Gamma UCL	121667

Potential UCL to Use

Use 95% Student's-t UCL 105833

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Lead - Area 2

General Statistics

Number of Valid Observations 28

Number of Distinct Observations 27

Raw Statistics

Minimum	6.24
Maximum	1660
Mean	358.7
Median	111
SD	479.6
Coefficient of Variation	1.337
Skewness	1.431

Log-transformed Statistics

Minimum of Log Data	1.831
Maximum of Log Data	7.415
Mean of log Data	4.7
SD of log Data	1.743

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.751
Shapiro Wilk Critical Value	0.924

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.92
Shapiro Wilk Critical Value	0.924

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	513.1

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	533.9
95% Modified-t UCL (Johnson-1978)	517.1

Assuming Lognormal Distribution

95% H-UCL	1622
95% Chebyshev (MVUE) UCL	1273
97.5% Chebyshev (MVUE) UCL	1632
99% Chebyshev (MVUE) UCL	2335

Gamma Distribution Test

k star (bias corrected)	0.499
Theta Star	718.8
MLE of Mean	358.7
MLE of Standard Deviation	507.8
nu star	27.94
Approximate Chi Square Value (.05)	16.88
Adjusted Level of Significance	0.0404
Adjusted Chi Square Value	16.35
Anderson-Darling Test Statistic	1.036
Anderson-Darling 5% Critical Value	0.807
Kolmogorov-Smirnov Test Statistic	0.167
Kolmogorov-Smirnov 5% Critical Value	0.175

Data follow Appr. Gamma Distribution at 5% Significance Level

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	507.8
95% Jackknife UCL	513.1
95% Standard Bootstrap UCL	507.6
95% Bootstrap-t UCL	545.6
95% Hall's Bootstrap UCL	527.3
95% Percentile Bootstrap UCL	511.6
95% BCA Bootstrap UCL	529.5
95% Chebyshev(Mean, Sd) UCL	753.8
97.5% Chebyshev(Mean, Sd) UCL	924.7
99% Chebyshev(Mean, Sd) UCL	1261

Assuming Gamma Distribution

95% Approximate Gamma UCL	593.6
95% Adjusted Gamma UCL	612.9

Potential UCL to Use

Use 95% Approximate Gamma UCL 593.6

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Magnesium - Area 2

General Statistics

Number of Valid Observations 11

Number of Distinct Observations 11

Raw Statistics

Minimum	200
Maximum	4500
Mean	2982
Median	3200
SD	1340
Coefficient of Variation	0.449
Skewness	-1.062

Log-transformed Statistics

Minimum of Log Data	5.298
Maximum of Log Data	8.412
Mean of log Data	7.778
SD of log Data	0.912

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.901
Shapiro Wilk Critical Value	0.85

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.677
Shapiro Wilk Critical Value	0.85

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 3714

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	3508
95% Modified-t UCL (Johnson-1978)	3693

Assuming Lognormal Distribution

95% H-UCL	8192
95% Chebyshev (MVUE) UCL	7799
97.5% Chebyshev (MVUE) UCL	9682
99% Chebyshev (MVUE) UCL	13381

Gamma Distribution Test

k star (bias corrected)	1.808
Theta Star	1649
MLE of Mean	2982
MLE of Standard Deviation	2217
nu star	39.78
Approximate Chi Square Value (.05)	26.33
Adjusted Level of Significance	0.0278
Adjusted Chi Square Value	24.56
Anderson-Darling Test Statistic	1.134
Anderson-Darling 5% Critical Value	0.737
Kolmogorov-Smirnov Test Statistic	0.317
Kolmogorov-Smirnov 5% Critical Value	0.258

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	4505
95% Adjusted Gamma UCL	4830

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	3646
95% Jackknife UCL	3714
95% Standard Bootstrap UCL	3610
95% Bootstrap-t UCL	3587
95% Hall's Bootstrap UCL	3543
95% Percentile Bootstrap UCL	3591
95% BCA Bootstrap UCL	3509
95% Chebyshev(Mean, Sd) UCL	4743
97.5% Chebyshev(Mean, Sd) UCL	5505
99% Chebyshev(Mean, Sd) UCL	7002

Potential UCL to Use

Use 95% Student's-t UCL 3714

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Manganese - Area 2

General Statistics

Number of Valid Observations 14 | Number of Distinct Observations 12

Raw Statistics

Minimum	120
Maximum	2100
Mean	616.7
Median	323.5
SD	593.6
Coefficient of Variation	0.962
Skewness	1.546

Log-transformed Statistics

Minimum of Log Data	4.787
Maximum of Log Data	7.65
Mean of log Data	6.061
SD of log Data	0.852

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.758
Shapiro Wilk Critical Value	0.874

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.913
Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	897.7

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	947.7
95% Modified-t UCL (Johnson-1978)	908.6

Assuming Lognormal Distribution

95% H-UCL	1129
95% Chebyshev (MVUE) UCL	1230
97.5% Chebyshev (MVUE) UCL	1504
99% Chebyshev (MVUE) UCL	2042

Gamma Distribution Test

k star (bias corrected)	1.243
Theta Star	496.2
MLE of Mean	616.7
MLE of Standard Deviation	553.2
nu star	34.8
Approximate Chi Square Value (.05)	22.3
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	20.98
Anderson-Darling Test Statistic	0.95
Anderson-Darling 5% Critical Value	0.75
Kolmogorov-Smirnov Test Statistic	0.28
Kolmogorov-Smirnov 5% Critical Value	0.233

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	962.2
95% Adjusted Gamma UCL	1023

Data Distribution

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	877.7
95% Jackknife UCL	897.7
95% Standard Bootstrap UCL	870.7
95% Bootstrap-t UCL	1048
95% Hall's Bootstrap UCL	889.8
95% Percentile Bootstrap UCL	874.4
95% BCA Bootstrap UCL	941
95% Chebyshev(Mean, Sd) UCL	1308
97.5% Chebyshev(Mean, Sd) UCL	1607
99% Chebyshev(Mean, Sd) UCL	2195

Potential UCL to Use | Use 95% H-UCL 1129

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Mercury - Area 2

General Statistics

Number of Valid Data	28	Number of Detected Data	25
Number of Distinct Detected Data	23	Number of Non-Detect Data	3
		Percent Non-Detects	10.71%

Raw Statistics

Minimum Detected	0.034
Maximum Detected	1
Mean of Detected	0.487
SD of Detected	0.335
Minimum Non-Detect	0.2
Maximum Non-Detect	0.2

Log-transformed Statistics

Minimum Detected	-3.381
Maximum Detected	0
Mean of Detected	-1.072
SD of Detected	1.004
Minimum Non-Detect	-1.609
Maximum Non-Detect	-1.609

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.904
5% Shapiro Wilk Critical Value	0.918

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.883
5% Shapiro Wilk Critical Value	0.918

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.446
SD	0.339
95% DL/2 (t) UCL	0.555
Maximum Likelihood Estimate(MLE) Method	
Mean	0.406
SD	0.392
95% MLE (t) UCL	0.533
95% MLE (Tiku) UCL	0.54

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-1.204
SD	1.023
95% H-Stat (DL/2) UCL	0.825
Log ROS Method	
Mean in Log Scale	-1.218
SD in Log Scale	1.044
Mean in Original Scale	0.445
SD in Original Scale	0.34
95% t UCL	0.554
95% Percentile Bootstrap UCL	0.551
95% BCA Bootstrap UCL	0.553

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.399
Theta Star	0.348
nu star	69.97
A-D Test Statistic	0.548
5% A-D Critical Value	0.761
K-S Test Statistic	0.761
5% K-S Critical Value	0.178

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	1
Mean	0.446
Median	0.3
SD	0.34
k star	0.469
Theta star	0.952
Nu star	26.27
AppChi2	15.59
95% Gamma Approximate UCL	0.752
95% Adjusted Gamma UCL	0.778

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.444
SD	0.335
SE of Mean	0.0648
95% KM (t) UCL	0.554
95% KM (z) UCL	0.551
95% KM (jackknife) UCL	0.554
95% KM (bootstrap t) UCL	0.565
95% KM (BCA) UCL	0.55
95% KM (Percentile Bootstrap) UCL	0.547
95% KM (Chebyshev) UCL	0.726
97.5% KM (Chebyshev) UCL	0.849
99% KM (Chebyshev) UCL	1.089

Potential UCLs to Use

95% KM (BCA) UCL	0.55

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Nickel - Area 2

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 12

Raw Statistics

Minimum	1.5
Maximum	18
Mean	7.993
Median	7.5
SD	6.241
Coefficient of Variation	0.781
Skewness	0.471

Log-transformed Statistics

Minimum of Log Data	0.405
Maximum of Log Data	2.89
Mean of log Data	1.704
SD of log Data	0.965

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.867
Shapiro Wilk Critical Value	0.874

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.873
Shapiro Wilk Critical Value	0.874

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	10.95

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	10.96
95% Modified-t UCL (Johnson-1978)	10.98

Assuming Lognormal Distribution

95% H-UCL	18.2
95% Chebyshev (MVUE) UCL	18.54
97.5% Chebyshev (MVUE) UCL	22.95
99% Chebyshev (MVUE) UCL	31.59

Gamma Distribution Test

k star (bias corrected)	1.209
Theta Star	6.612
MLE of Mean	7.993
MLE of Standard Deviation	7.269
nu star	33.85
Approximate Chi Square Value (.05)	21.54
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	20.25
Anderson-Darling Test Statistic	0.659
Anderson-Darling 5% Critical Value	0.751
Kolmogorov-Smirnov Test Statistic	0.205
Kolmogorov-Smirnov 5% Critical Value	0.233

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	10.74
95% Jackknife UCL	10.95
95% Standard Bootstrap UCL	10.69
95% Bootstrap-t UCL	11.18
95% Hall's Bootstrap UCL	10.63
95% Percentile Bootstrap UCL	10.71
95% BCA Bootstrap UCL	10.94
95% Chebyshev(Mean, Sd) UCL	15.26
97.5% Chebyshev(Mean, Sd) UCL	18.41
99% Chebyshev(Mean, Sd) UCL	24.59

Assuming Gamma Distribution

95% Approximate Gamma UCL	12.56
95% Adjusted Gamma UCL	13.36

Potential UCL to Use

Use 95% Approximate Gamma UCL 12.56

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

pH - Area 2

General Statistics

Number of Valid Observations 31

Number of Distinct Observations 25

Raw Statistics

Minimum	1.74
Maximum	7.2
Mean	4.573
Median	4.4
SD	1.207
Coefficient of Variation	0.264
Skewness	0.0641

Log-transformed Statistics

Minimum of Log Data	0.554
Maximum of Log Data	1.974
Mean of log Data	1.483
SD of log Data	0.289

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.965
Shapiro Wilk Critical Value	0.929

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.932
Shapiro Wilk Critical Value	0.929

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 4.941

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	4.933
95% Modified-t UCL (Johnson-1978)	4.942

Assuming Lognormal Distribution

95% H-UCL	5.046
95% Chebyshev (MVUE) UCL	5.639
97.5% Chebyshev (MVUE) UCL	6.094
99% Chebyshev (MVUE) UCL	6.989

Gamma Distribution Test

k star (bias corrected)	12.26
Theta Star	0.373
MLE of Mean	4.573
MLE of Standard Deviation	1.306
nu star	760.3
Approximate Chi Square Value (.05)	697.3
Adjusted Level of Significance	0.0413
Adjusted Chi Square Value	694
Anderson-Darling Test Statistic	0.5
Anderson-Darling 5% Critical Value	0.746
Kolmogorov-Smirnov Test Statistic	0.116
Kolmogorov-Smirnov 5% Critical Value	0.158

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	4.986
95% Adjusted Gamma UCL	5.01

Nonparametric Statistics

95% CLT UCL	4.93
95% Jackknife UCL	4.941
95% Standard Bootstrap UCL	4.921
95% Bootstrap-t UCL	4.945
95% Hall's Bootstrap UCL	4.922
95% Percentile Bootstrap UCL	4.921
95% BCA Bootstrap UCL	4.927
95% Chebyshev(Mean, Sd) UCL	5.518
97.5% Chebyshev(Mean, Sd) UCL	5.927
99% Chebyshev(Mean, Sd) UCL	6.731

Potential UCL to Use

Use 95% Student's-t UCL 4.941

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Potassium - Area 2

General Statistics

Number of Valid Observations 11

Number of Distinct Observations 10

Raw Statistics

Minimum	130
Maximum	2100
Mean	1122
Median	1200
SD	618.9
Coefficient of Variation	0.552
Skewness	-0.0908

Log-transformed Statistics

Minimum of Log Data	4.868
Maximum of Log Data	7.65
Mean of log Data	6.795
SD of log Data	0.831

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.974
Shapiro Wilk Critical Value	0.85

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.861
Shapiro Wilk Critical Value	0.85

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 1460

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1423
95% Modified-t UCL (Johnson-1978)	1459

Assuming Lognormal Distribution

95% H-UCL	2557
95% Chebyshev (MVUE) UCL	2602
97.5% Chebyshev (MVUE) UCL	3203
99% Chebyshev (MVUE) UCL	4383

Gamma Distribution Test

k star (bias corrected)	1.769
Theta Star	634
MLE of Mean	1122
MLE of Standard Deviation	843.3
nu star	38.93
Approximate Chi Square Value (.05)	25.64
Adjusted Level of Significance	0.0278
Adjusted Chi Square Value	23.89
Anderson-Darling Test Statistic	0.407
Anderson-Darling 5% Critical Value	0.737
Kolmogorov-Smirnov Test Statistic	0.212
Kolmogorov-Smirnov 5% Critical Value	0.258

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	1429
95% Jackknife UCL	1460
95% Standard Bootstrap UCL	1409
95% Bootstrap-t UCL	1442
95% Hall's Bootstrap UCL	1417
95% Percentile Bootstrap UCL	1415
95% BCA Bootstrap UCL	1398
95% Chebyshev(Mean, Sd) UCL	1935
97.5% Chebyshev(Mean, Sd) UCL	2287
99% Chebyshev(Mean, Sd) UCL	2978

Assuming Gamma Distribution

95% Approximate Gamma UCL	1703
95% Adjusted Gamma UCL	1828

Potential UCL to Use

Use 95% Student's-t UCL 1460

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Selenium - Area 2

General Statistics

Number of Valid Data	25	Number of Detected Data	19
Number of Distinct Detected Data	18	Number of Non-Detect Data	6
		Percent Non-Detects	24.00%

Raw Statistics

Minimum Detected	0.1
Maximum Detected	25
Mean of Detected	3.866
SD of Detected	6.419
Minimum Non-Detect	1
Maximum Non-Detect	50

Log-transformed Statistics

Minimum Detected	-2.303
Maximum Detected	3.219
Mean of Detected	0.442
SD of Detected	1.36
Minimum Non-Detect	0
Maximum Non-Detect	3.912

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	25
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.588
5% Shapiro Wilk Critical Value	0.901

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	5.958
SD	7.809
95% DL/2 (t) UCL	8.63
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.942
5% Shapiro Wilk Critical Value	0.901

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	0.827
SD	1.519
95% H-Stat (DL/2) UCL	19.68
Log ROS Method	
Mean in Log Scale	0.367
SD in Log Scale	1.235
Mean in Original Scale	3.285
SD in Original Scale	5.683
95% t UCL	5.23
95% Percentile Bootstrap UCL	5.237
95% BCA Bootstrap UCL	6.025

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.598
Theta Star	6.465
nu star	22.73
A-D Test Statistic	1.33
5% A-D Critical Value	0.787
K-S Test Statistic	0.787
5% K-S Critical Value	0.207

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.1
Maximum	25
Mean	3.783
Median	1.494
SD	5.652
k star	0.736
Theta star	5.14
Nu star	36.8
AppChi2	23.92
95% Gamma Approximate UCL	5.822
95% Adjusted Gamma UCL	5.999

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	3.616
SD	6.015
SE of Mean	1.353
95% KM (t) UCL	5.931
95% KM (z) UCL	5.841
95% KM (jackknife) UCL	5.935
95% KM (bootstrap t) UCL	9.499
95% KM (BCA) UCL	6.045
95% KM (Percentile Bootstrap) UCL	5.92
95% KM (Chebyshev) UCL	9.513
97.5% KM (Chebyshev) UCL	12.07
99% KM (Chebyshev) UCL	17.08

Potential UCLs to Use

97.5% KM (Chebyshev) UCL	12.07

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Silver - Area 2

General Statistics

Number of Valid Data	25	Number of Detected Data	20
Number of Distinct Detected Data	19	Number of Non-Detect Data	5
		Percent Non-Detects	20.00%

Raw Statistics

Minimum Detected	0.2
Maximum Detected	70
Mean of Detected	13.4
SD of Detected	17.79
Minimum Non-Detect	0.5
Maximum Non-Detect	30

Log-transformed Statistics

Minimum Detected	-1.609
Maximum Detected	4.248
Mean of Detected	1.593
SD of Detected	1.69
Minimum Non-Detect	-0.693
Maximum Non-Detect	3.401

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	21
Number treated as Detected	4
Single DL Non-Detect Percentage	84.00%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.741
5% Shapiro Wilk Critical Value	0.905

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.949
5% Shapiro Wilk Critical Value	0.905

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	11.83
SD	16.31
95% DL/2 (t) UCL	17.41

Maximum Likelihood Estimate(MLE) Method

Mean	1.098
SD	28.54
95% MLE (t) UCL	10.86
95% MLE (Tiku) UCL	29.54

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean	1.492
SD	1.64
95% H-Stat (DL/2) UCL	53.43

Log ROS Method

Mean in Log Scale	1.33
SD in Log Scale	1.632
Mean in Original Scale	11.06
SD in Original Scale	16.54
95% t UCL	16.72
95% Percentile Bootstrap UCL	16.89
95% BCA Bootstrap UCL	18.56

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.555
Theta Star	24.13
nu star	22.22
A-D Test Statistic	0.295
5% A-D Critical Value	0.792
K-S Test Statistic	0.792
5% K-S Critical Value	0.203

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data

Minimum	1E-12
Maximum	70
Mean	11.86
Median	5.7
SD	16.33
k star	0.318
Theta star	37.26
Nu star	15.92
AppChi2	7.902
95% Gamma Approximate UCL	23.89
95% Adjusted Gamma UCL	25.11

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	11.26
SD	16.16
SE of Mean	3.331
95% KM (t) UCL	16.96
95% KM (z) UCL	16.74
95% KM (jackknife) UCL	16.93
95% KM (bootstrap t) UCL	20.08
95% KM (BCA) UCL	17.63
95% KM (Percentile Bootstrap) UCL	16.97
95% KM (Chebyshev) UCL	25.78
97.5% KM (Chebyshev) UCL	32.06
99% KM (Chebyshev) UCL	44.4

Potential UCLs to Use

95% KM (Chebyshev) UCL	25.78

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Sodium - Area 2

General Statistics

Number of Valid Data	11	Number of Detected Data	7
Number of Distinct Detected Data	7	Number of Non-Detect Data	4
		Percent Non-Detects	36.36%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	66	Minimum Detected	4.19
Maximum Detected	100	Maximum Detected	4.605
Mean of Detected	83.29	Mean of Detected	4.414
SD of Detected	11.15	SD of Detected	0.136
Minimum Non-Detect	33	Minimum Non-Detect	3.497
Maximum Non-Detect	39	Maximum Non-Detect	3.664

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	4
Number treated as Detected	7
Single DL Non-Detect Percentage	36.36%

Warning: There are only 7 Detected Values in this data
Note: It should be noted that even though bootstrap may be performed on this data set
the resulting calculations may not be reliable enough to draw conclusions

It is recommended to have 10-15 or more distinct observations for accurate and meaningful results.

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.99	Shapiro Wilk Test Statistic	0.983
5% Shapiro Wilk Critical Value	0.803	5% Shapiro Wilk Critical Value	0.803
Data appear Normal at 5% Significance Level		**Data appear Lognormal at 5% Significance Level**	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	59.45	Mean	3.854
SD	34.18	SD	0.786
95% DL/2 (t) UCL	78.13	95% H-Stat (DL/2) UCL	122.8
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	83.29	Mean in Log Scale	4.286
SD	10.32	SD in Log Scale	0.209
95% MLE (t) UCL	88.93	Mean in Original Scale	74.13
95% MLE (Tiku) UCL	90.36	SD in Original Scale	15.43
		95% t UCL	82.56
		95% Percentile Bootstrap UCL	81.57
		95% BCA Bootstrap UCL	81.47

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	36.63	**Data appear Normal at 5% Significance Level**	
Theta Star	2.274		
nu star	512.8		
A-D Test Statistic	0.169	**Nonparametric Statistics**	
5% A-D Critical Value	0.708	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.708	Mean	77
5% K-S Critical Value	0.311	SD	11.7
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	3.811
		95% KM (t) UCL	83.91
Assuming Gamma Distribution		95% KM (z) UCL	83.27
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	84.07
Minimum	66	95% KM (bootstrap t) UCL	84.06
Maximum	100	95% KM (BCA) UCL	88.09
Mean	80.57	95% KM (Percentile Bootstrap) UCL	85.82
Median	78	95% KM (Chebyshev) UCL	93.61
SD	9.683	97.5% KM (Chebyshev) UCL	100.8
k star	56.97	99% KM (Chebyshev) UCL	114.9
Theta star	1.414		
Nu star	1253	**Potential UCLs to Use**	
AppChi2	1172	95% KM (t) UCL	83.91
95% Gamma Approximate UCL	86.15	95% KM (Percentile Bootstrap) UCL	85.82
95% Adjusted Gamma UCL	87.1		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Thallium - Area 2

General Statistics

Number of Valid Data	11	Number of Detected Data	10
Number of Distinct Detected Data	8	Number of Non-Detect Data	1
		Percent Non-Detects	9.09%

Raw Statistics

Minimum Detected	0.15
Maximum Detected	0.47
Mean of Detected	0.276
SD of Detected	0.113
Minimum Non-Detect	0.12
Maximum Non-Detect	0.12

Log-transformed Statistics

Minimum Detected	-1.897
Maximum Detected	-0.755
Mean of Detected	-1.365
SD of Detected	0.42
Minimum Non-Detect	-2.12
Maximum Non-Detect	-2.12

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.891
5% Shapiro Wilk Critical Value	0.842

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.256
SD	0.126
95% DL/2 (t) UCL	0.325
Maximum Likelihood Estimate(MLE) Method	
Mean	0.256
SD	0.121
95% MLE (t) UCL	0.322
95% MLE (Tiku) UCL	0.322

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	4.663
Theta Star	0.0592
nu star	93.26
A-D Test Statistic	0.53
5% A-D Critical Value	0.728
K-S Test Statistic	0.728
5% K-S Critical Value	0.267

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.0681
Maximum	0.47
Mean	0.257
Median	0.24
SD	0.124
k star	3.033
Theta star	0.0848
Nu star	66.73
AppChi2	48.93
95% Gamma Approximate UCL	0.351
95% Adjusted Gamma UCL	0.369

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.896
5% Shapiro Wilk Critical Value	0.842

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-1.497
SD	0.591
95% H-Stat (DL/2) UCL	0.41
Log ROS Method	
Mean in Log Scale	-1.458
SD in Log Scale	0.502
Mean in Original Scale	0.259
SD in Original Scale	0.121
95% t UCL	0.325
95% Percentile Bootstrap UCL	0.319
95% BCA Bootstrap UCL	0.322

Data Distribution Test with Detected Values Only

Data appear Normal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.265
SD	0.109
SE of Mean	0.0345
95% KM (t) UCL	0.327
95% KM (z) UCL	0.321
95% KM (jackknife) UCL	0.326
95% KM (bootstrap t) UCL	0.336
95% KM (BCA) UCL	0.319
95% KM (Percentile Bootstrap) UCL	0.321
95% KM (Chebyshev) UCL	0.415
97.5% KM (Chebyshev) UCL	0.48
99% KM (Chebyshev) UCL	0.608

Potential UCLs to Use

95% KM (t) UCL	0.327
95% KM (Percentile Bootstrap) UCL	0.321

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Vanadium - Area 2

General Statistics

Number of Valid Observations 11

Number of Distinct Observations 10

Raw Statistics

Minimum 13
Maximum 63
Mean 34.82
Median 38
SD 18.52
Coefficient of Variation 0.532
Skewness 0.173

Log-transformed Statistics

Minimum of Log Data 2.565
Maximum of Log Data 4.143
Mean of log Data 3.399
SD of log Data 0.601

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic 0.9
Shapiro Wilk Critical Value 0.85

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic 0.888
Shapiro Wilk Critical Value 0.85

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 44.94

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995) 44.32
95% Modified-t UCL (Johnson-1978) 44.99

Assuming Lognormal Distribution

95% H-UCL 55.68
95% Chebyshev (MVUE) UCL 63.8
97.5% Chebyshev (MVUE) UCL 76.18
99% Chebyshev (MVUE) UCL 100.5

Gamma Distribution Test

k star (bias corrected) 2.576
Theta Star 13.52
MLE of Mean 34.82
MLE of Standard Deviation 21.69
nu star 56.67
Approximate Chi Square Value (.05) 40.37
Adjusted Level of Significance 0.0278
Adjusted Chi Square Value 38.14

Anderson-Darling Test Statistic 0.529
Anderson-Darling 5% Critical Value 0.733
Kolmogorov-Smirnov Test Statistic 0.19
Kolmogorov-Smirnov 5% Critical Value 0.257

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL 48.88
95% Adjusted Gamma UCL 51.74

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL 44.01
95% Jackknife UCL 44.94
95% Standard Bootstrap UCL 43.56
95% Bootstrap-t UCL 45.07
95% Hall's Bootstrap UCL 42.99
95% Percentile Bootstrap UCL 43.45
95% BCA Bootstrap UCL 43.64
95% Chebyshev(Mean, Sd) UCL 59.16
97.5% Chebyshev(Mean, Sd) UCL 69.7
99% Chebyshev(Mean, Sd) UCL 90.39

Potential UCL to Use

Use 95% Student's-t UCL 44.94

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Zinc - Area 2

General Statistics

Number of Valid Observations 28

Number of Distinct Observations 26

Raw Statistics

Minimum	5
Maximum	971
Mean	221.3
Median	145.5
SD	208.6
Coefficient of Variation	0.943
Skewness	1.912

Log-transformed Statistics

Minimum of Log Data	1.609
Maximum of Log Data	6.878
Mean of log Data	4.927
SD of log Data	1.129

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.822
Shapiro Wilk Critical Value	0.924

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.948
Shapiro Wilk Critical Value	0.924

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	288.5

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	301.4
95% Modified-t UCL (Johnson-1978)	290.8

Assuming Lognormal Distribution

95% H-UCL	460.3
95% Chebyshev (MVUE) UCL	526.3
97.5% Chebyshev (MVUE) UCL	645.1
99% Chebyshev (MVUE) UCL	878.4

Gamma Distribution Test

k star (bias corrected)	1.092
Theta Star	202.7
MLE of Mean	221.3
MLE of Standard Deviation	211.8
nu star	61.15
Approximate Chi Square Value (.05)	44.16
Adjusted Level of Significance	0.0404
Adjusted Chi Square Value	43.27
Anderson-Darling Test Statistic	0.237
Anderson-Darling 5% Critical Value	0.769
Kolmogorov-Smirnov Test Statistic	0.105
Kolmogorov-Smirnov 5% Critical Value	0.169

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	286.2
95% Jackknife UCL	288.5
95% Standard Bootstrap UCL	284.6
95% Bootstrap-t UCL	312.4
95% Hall's Bootstrap UCL	334.2
95% Percentile Bootstrap UCL	291.3
95% BCA Bootstrap UCL	302.6
95% Chebyshev(Mean, Sd) UCL	393.2
97.5% Chebyshev(Mean, Sd) UCL	467.5
99% Chebyshev(Mean, Sd) UCL	613.6

Assuming Gamma Distribution

95% Approximate Gamma UCL	306.4
95% Adjusted Gamma UCL	312.7

Potential UCL to Use

Use 95% Approximate Gamma UCL 306.4

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	C:\Dana new work_121511\Hart Crowser\Monte Cristo Mine_win & work\background comparisons\site soil data, summ stats, UCLs\Area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 16

Raw Statistics

Minimum	1270
Maximum	27000
Mean	10533
Median	8850
SD	8168
Coefficient of Variation	0.775
Skewness	0.951

Log-transformed Statistics

Minimum of Log Data	7.147
Maximum of Log Data	10.2
Mean of log Data	8.917
SD of log Data	0.939

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.878
Shapiro Wilk Critical Value	0.897

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	13882

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	14160
95% Modified-t UCL (Johnson-1978)	13954

Gamma Distribution Test

k star (bias corrected)	1.364
Theta Star	7722
MLE of Mean	10533
MLE of Standard Deviation	9018
nu star	49.11
Approximate Chi Square Value (.05)	34.02
Adjusted Level of Significance	0.0357
Adjusted Chi Square Value	32.81
Anderson-Darling Test Statistic	0.319
Anderson-Darling 5% Critical Value	0.756
Kolmogorov-Smirnov Test Statistic	0.131
Kolmogorov-Smirnov 5% Critical Value	0.207

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	15204
95% Adjusted Gamma UCL	15762

Potential UCL to Use

Use 95% Approximate Gamma UCL 15204

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.93
Shapiro Wilk Critical Value	0.897

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	20695
95% Chebyshev (MVUE) UCL	23089
97.5% Chebyshev (MVUE) UCL	28232
99% Chebyshev (MVUE) UCL	38335

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	13699
95% Jackknife UCL	13882
95% Standard Bootstrap UCL	13599
95% Bootstrap-t UCL	14715
95% Hall's Bootstrap UCL	14036
95% Percentile Bootstrap UCL	13813
95% BCA Bootstrap UCL	13921
95% Chebyshev(Mean, Sd) UCL	18924
97.5% Chebyshev(Mean, Sd) UCL	22556
99% Chebyshev(Mean, Sd) UCL	29688

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Antimony - Area 3

General Statistics

Number of Valid Data	32	Number of Detected Data	29
Number of Distinct Detected Data	27	Number of Non-Detect Data	3
		Percent Non-Detects	9.38%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.32	Minimum Detected	-1.139
Maximum Detected	8800	Maximum Detected	9.083
Mean of Detected	735.9	Mean of Detected	4.004
SD of Detected	1873	SD of Detected	2.737
Minimum Non-Detect	2	Minimum Non-Detect	0.693
Maximum Non-Detect	200	Maximum Non-Detect	5.298

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

		Number treated as Non-Detect	23
		Number treated as Detected	9
		Single DL Non-Detect Percentage	71.88%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.45	Shapiro Wilk Test Statistic	0.968
5% Shapiro Wilk Critical Value	0.926	5% Shapiro Wilk Critical Value	0.926
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	671.6	Mean	3.895
SD	1792	SD	2.699
95% DL/2 (t) UCL	1209	95% H-Stat (DL/2) UCL	20488
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	3.774
		SD in Log Scale	2.729
		Mean in Original Scale	667.7
		SD in Original Scale	1793
		95% t UCL	1205
		95% Percentile Bootstrap UCL	1239
		95% BCA Bootstrap UCL	1484

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.265	Data appear Lognormal at 5% Significance Level	
Theta Star	2776		
nu star	15.38		
A-D Test Statistic	1.184	Nonparametric Statistics	
5% A-D Critical Value	0.869	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.869	Mean	669
5% K-S Critical Value	0.178	SD	1764
Data not Gamma Distributed at 5% Significance Level		SE of Mean	317.4
		95% KM (t) UCL	1207
Assuming Gamma Distribution		95% KM (z) UCL	1191
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	1206
Minimum	1E-12	95% KM (bootstrap t) UCL	1895
Maximum	8800	95% KM (BCA) UCL	1268
Mean	666.9	95% KM (Percentile Bootstrap) UCL	1263
Median	51.5	95% KM (Chebyshev) UCL	2053
SD	1793	97.5% KM (Chebyshev) UCL	2651
k star	0.149	99% KM (Chebyshev) UCL	3827
Theta star	4466		
Nu star	9.557	Potential UCLs to Use	
AppChi2	3.667	99% KM (Chebyshev) UCL	3827
95% Gamma Approximate UCL	1738		
95% Adjusted Gamma UCL	1835		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Arsenic - Area 3

General Statistics

Number of Valid Observations 32

Number of Distinct Observations 30

Raw Statistics

Minimum	30
Maximum	33600
Mean	8174
Median	5230
SD	8726
Coefficient of Variation	1.068
Skewness	1.332

Log-transformed Statistics

Minimum of Log Data	3.401
Maximum of Log Data	10.42
Mean of log Data	7.941
SD of log Data	2.082

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.835
Shapiro Wilk Critical Value	0.93

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.842
Shapiro Wilk Critical Value	0.93

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	10789

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	11099
95% Modified-t UCL (Johnson-1978)	10850

Assuming Lognormal Distribution

95% H-UCL	107844
95% Chebyshev (MVUE) UCL	65327
97.5% Chebyshev (MVUE) UCL	84753
99% Chebyshev (MVUE) UCL	122912

Gamma Distribution Test

k star (bias corrected)	0.548
Theta Star	14924
MLE of Mean	8174
MLE of Standard Deviation	11045
nu star	35.05
Approximate Chi Square Value (.05)	22.51
Adjusted Level of Significance	0.0416
Adjusted Chi Square Value	21.97
Anderson-Darling Test Statistic	0.622
Anderson-Darling 5% Critical Value	0.803
Kolmogorov-Smirnov Test Statistic	0.15
Kolmogorov-Smirnov 5% Critical Value	0.163

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	12730
95% Adjusted Gamma UCL	13042

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	10711
95% Jackknife UCL	10789
95% Standard Bootstrap UCL	10621
95% Bootstrap-t UCL	11207
95% Hall's Bootstrap UCL	11031
95% Percentile Bootstrap UCL	10759
95% BCA Bootstrap UCL	11032
95% Chebyshev(Mean, Sd) UCL	14897
97.5% Chebyshev(Mean, Sd) UCL	17806
99% Chebyshev(Mean, Sd) UCL	23521

Potential UCL to Use

Use 95% Approximate Gamma UCL 12730

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Barium - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 17

Raw Statistics

Minimum	3.1
Maximum	130
Mean	43.29
Median	41.5
SD	34.64
Coefficient of Variation	0.8
Skewness	0.973

Log-transformed Statistics

Minimum of Log Data	1.131
Maximum of Log Data	4.868
Mean of log Data	3.33
SD of log Data	1.12

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.913
Shapiro Wilk Critical Value	0.897

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 57.5

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	58.72
95% Modified-t UCL (Johnson-1978)	57.81

Gamma Distribution Test

k star (bias corrected)	1.106
Theta Star	39.14
MLE of Mean	43.29
MLE of Standard Deviation	41.17
nu star	39.82
Approximate Chi Square Value (.05)	26.36
Adjusted Level of Significance	0.0357
Adjusted Chi Square Value	25.31
Anderson-Darling Test Statistic	0.41
Anderson-Darling 5% Critical Value	0.761
Kolmogorov-Smirnov Test Statistic	0.139
Kolmogorov-Smirnov 5% Critical Value	0.208

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	65.39
95% Adjusted Gamma UCL	68.11

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.901
Shapiro Wilk Critical Value	0.897

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	112.4
95% Chebyshev (MVUE) UCL	114.1
97.5% Chebyshev (MVUE) UCL	142
99% Chebyshev (MVUE) UCL	196.8

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	56.72
95% Jackknife UCL	57.5
95% Standard Bootstrap UCL	56.2
95% Bootstrap-t UCL	60.62
95% Hall's Bootstrap UCL	61.84
95% Percentile Bootstrap UCL	57.01
95% BCA Bootstrap UCL	58.35
95% Chebyshev(Mean, Sd) UCL	78.88
97.5% Chebyshev(Mean, Sd) UCL	94.28
99% Chebyshev(Mean, Sd) UCL	124.5

Potential UCL to Use

Use 95% Student's-t UCL 57.5

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Beryllium - Area 3

General Statistics

Number of Valid Data	18	Number of Detected Data	13
Number of Distinct Detected Data	11	Number of Non-Detect Data	5
		Percent Non-Detects	27.78%

Raw Statistics

Minimum Detected	0.076
Maximum Detected	0.6
Mean of Detected	0.239
SD of Detected	0.157
Minimum Non-Detect	0.044
Maximum Non-Detect	0.2

Log-transformed Statistics

Minimum Detected	-2.577
Maximum Detected	-0.511
Mean of Detected	-1.594
SD of Detected	0.576
Minimum Non-Detect	-3.124
Maximum Non-Detect	-1.609

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	10
Number treated as Detected	8
Single DL Non-Detect Percentage	55.56%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.778
5% Shapiro Wilk Critical Value	0.866

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.943
5% Shapiro Wilk Critical Value	0.866

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.196
SD	0.151
95% DL/2 (t) UCL	0.258
Maximum Likelihood Estimate(MLE) Method	
Mean	0.148
SD	0.202
95% MLE (t) UCL	0.231
95% MLE (Tiku) UCL	0.259

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-1.875
SD	0.748
95% H-Stat (DL/2) UCL	0.308
Log ROS Method	
Mean in Log Scale	-1.825
SD in Log Scale	0.652
Mean in Original Scale	0.199
SD in Original Scale	0.149
95% t UCL	0.26
95% Percentile Bootstrap UCL	0.26
95% BCA Bootstrap UCL	0.27

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	2.54
Theta Star	0.0941
nu star	66.04
A-D Test Statistic	0.601
5% A-D Critical Value	0.739
K-S Test Statistic	0.739
5% K-S Critical Value	0.238

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.0123
Maximum	0.6
Mean	0.218
Median	0.2
SD	0.147
k star	1.836
Theta star	0.119
Nu star	66.1
AppChi2	48.39
95% Gamma Approximate UCL	0.297
95% Adjusted Gamma UCL	0.306

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	0.203
SD	0.142
SE of Mean	0.0352
95% KM (t) UCL	0.264
95% KM (z) UCL	0.261
95% KM (jackknife) UCL	0.262
95% KM (bootstrap t) UCL	0.322
95% KM (BCA) UCL	0.267
95% KM (Percentile Bootstrap) UCL	0.265
95% KM (Chebyshev) UCL	0.356
97.5% KM (Chebyshev) UCL	0.423
99% KM (Chebyshev) UCL	0.553

Potential UCLs to Use

95% KM (Percentile Bootstrap) UCL	0.265

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Cadmium - Area 3

General Statistics

Number of Valid Data	32	Number of Detected Data	27
Number of Distinct Detected Data	25	Number of Non-Detect Data	5
		Percent Non-Detects	15.63%

Raw Statistics

Minimum Detected	0.065
Maximum Detected	55
Mean of Detected	6.843
SD of Detected	11.28
Minimum Non-Detect	0.3
Maximum Non-Detect	50

Log-transformed Statistics

Minimum Detected	-2.733
Maximum Detected	4.007
Mean of Detected	0.81
SD of Detected	1.812
Minimum Non-Detect	-1.204
Maximum Non-Detect	3.912

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	31
Number treated as Detected	1
Single DL Non-Detect Percentage	96.88%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.587
5% Shapiro Wilk Critical Value	0.923

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.928
5% Shapiro Wilk Critical Value	0.923

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	8.278
SD	11.47
95% DL/2 (t) UCL	11.72
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	0.995
SD	1.887
95% H-Stat (DL/2) UCL	55.48
Log ROS Method	
Mean in Log Scale	0.71
SD in Log Scale	1.737
Mean in Original Scale	6.085
SD in Original Scale	10.51
95% t UCL	9.235
95% Percentile Bootstrap UCL	9.635
95% BCA Bootstrap UCL	10.8

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.523
Theta Star	13.08
nu star	28.25
A-D Test Statistic	0.367
5% A-D Critical Value	0.802
K-S Test Statistic	0.802
5% K-S Critical Value	0.177

Data appear Gamma Distributed at 5% Significance Level

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	55
Mean	6.45
Median	2.685
SD	10.57
k star	0.333
Theta star	19.37
Nu star	21.31
AppChi2	11.82
95% Gamma Approximate UCL	11.63
95% Adjusted Gamma UCL	12.01

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	6.378
SD	10.46
SE of Mean	1.926
95% KM (t) UCL	9.644
95% KM (z) UCL	9.547
95% KM (jackknife) UCL	9.64
95% KM (bootstrap t) UCL	13.02
95% KM (BCA) UCL	10.33
95% KM (Percentile Bootstrap) UCL	9.603
95% KM (Chebyshev) UCL	14.77
97.5% KM (Chebyshev) UCL	18.41
99% KM (Chebyshev) UCL	25.54

Potential UCLs to Use

95% KM (Chebyshev) UCL	14.77

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Calcium - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 16

Raw Statistics

Minimum	91.6
Maximum	5580
Mean	1422
Median	701
SD	1507
Coefficient of Variation	1.06
Skewness	1.5

Log-transformed Statistics

Minimum of Log Data	4.517
Maximum of Log Data	8.627
Mean of log Data	6.666
SD of log Data	1.204

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.816
Shapiro Wilk Critical Value	0.897

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	2040

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	2140
95% Modified-t UCL (Johnson-1978)	2061

Gamma Distribution Test

k star (bias corrected)	0.85
Theta Star	1672
MLE of Mean	1422
MLE of Standard Deviation	1542
nu star	30.61
Approximate Chi Square Value (.05)	18.97
Adjusted Level of Significance	0.0357
Adjusted Chi Square Value	18.09
Anderson-Darling Test Statistic	0.396
Anderson-Darling 5% Critical Value	0.768
Kolmogorov-Smirnov Test Statistic	0.181
Kolmogorov-Smirnov 5% Critical Value	0.21

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	2294
95% Adjusted Gamma UCL	2405

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.962
Shapiro Wilk Critical Value	0.897

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	3832
95% Chebyshev (MVUE) UCL	3668
97.5% Chebyshev (MVUE) UCL	4597
99% Chebyshev (MVUE) UCL	6421

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	2006
95% Jackknife UCL	2040
95% Standard Bootstrap UCL	1993
95% Bootstrap-t UCL	2300
95% Hall's Bootstrap UCL	2260
95% Percentile Bootstrap UCL	1992
95% BCA Bootstrap UCL	2151
95% Chebyshev(Mean, Sd) UCL	2971
97.5% Chebyshev(Mean, Sd) UCL	3641
99% Chebyshev(Mean, Sd) UCL	4957

Potential UCL to Use

Use 95% Approximate Gamma UCL 2294

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Chromium - Area 3

General Statistics

Number of Valid Data	32	Number of Detected Data	24
Number of Distinct Detected Data	23	Number of Non-Detect Data	8
		Percent Non-Detects	25.00%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	1.6	Minimum Detected	0.47
Maximum Detected	28.5	Maximum Detected	3.35
Mean of Detected	9.671	Mean of Detected	2.019
SD of Detected	7.329	SD of Detected	0.723
Minimum Non-Detect	5	Minimum Non-Detect	1.609
Maximum Non-Detect	30	Maximum Non-Detect	3.401

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

		Number treated as Non-Detect	32
		Number treated as Detected	0
		Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.831	Shapiro Wilk Test Statistic	0.973
5% Shapiro Wilk Critical Value	0.916	5% Shapiro Wilk Critical Value	0.916
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	10.24	Mean	2.085
SD	6.936	SD	0.736
95% DL/2 (t) UCL	12.32	95% H-Stat (DL/2) UCL	14
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE method failed to converge properly		Mean in Log Scale	1.963
		SD in Log Scale	0.69
		Mean in Original Scale	9.024
		SD in Original Scale	6.774
		95% t UCL	11.05
		95% Percentile Bootstrap UCL	11.05
		95% BCA Bootstrap UCL	11.28

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	1.912	Data appear Gamma Distributed at 5% Significance Level	
Theta Star	5.058		
nu star	91.77		
A-D Test Statistic	0.581	**Nonparametric Statistics**	
5% A-D Critical Value	0.754	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.754	Mean	9.221
5% K-S Critical Value	0.18	SD	7.074
Data appear Gamma Distributed at 5% Significance Level		SE of Mean	1.419
		95% KM (t) UCL	11.63
Assuming Gamma Distribution		95% KM (z) UCL	11.55
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	11.63
Minimum	1.6	95% KM (bootstrap t) UCL	12.11
Maximum	28.5	95% KM (BCA) UCL	11.82
Mean	9.499	95% KM (Percentile Bootstrap) UCL	11.55
Median	7.25	95% KM (Chebyshev) UCL	15.4
SD	6.903	97.5% KM (Chebyshev) UCL	18.08
k star	1.999	99% KM (Chebyshev) UCL	23.34
Theta star	4.752		
Nu star	127.9	**Potential UCLs to Use**	
AppChi2	102.8	95% KM (Percentile Bootstrap) UCL	11.55
95% Gamma Approximate UCL	11.82		
95% Adjusted Gamma UCL	11.96		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Cobalt - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 16

Raw Statistics

Minimum	1.3
Maximum	36
Mean	12.7
Median	10.43
SD	11.37
Coefficient of Variation	0.895
Skewness	0.501

Log-transformed Statistics

Minimum of Log Data	0.262
Maximum of Log Data	3.584
Mean of log Data	1.946
SD of log Data	1.255

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.86
Shapiro Wilk Critical Value	0.897

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.844
Shapiro Wilk Critical Value	0.897

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	17.36

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	17.45
95% Modified-t UCL (Johnson-1978)	17.41

Assuming Lognormal Distribution

95% H-UCL	38.65
95% Chebyshev (MVUE) UCL	35.53
97.5% Chebyshev (MVUE) UCL	44.7
99% Chebyshev (MVUE) UCL	62.72

Gamma Distribution Test

k star (bias corrected)	0.847
Theta Star	15
MLE of Mean	12.7
MLE of Standard Deviation	13.8
nu star	30.49
Approximate Chi Square Value (.05)	18.88
Adjusted Level of Significance	0.0357
Adjusted Chi Square Value	18
Anderson-Darling Test Statistic	1.096
Anderson-Darling 5% Critical Value	0.768
Kolmogorov-Smirnov Test Statistic	0.201
Kolmogorov-Smirnov 5% Critical Value	0.21

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	20.51
95% Adjusted Gamma UCL	21.51

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	17.11
95% Jackknife UCL	17.36
95% Standard Bootstrap UCL	17.02
95% Bootstrap-t UCL	17.76
95% Hall's Bootstrap UCL	17.11
95% Percentile Bootstrap UCL	17.18
95% BCA Bootstrap UCL	17.65
95% Chebyshev(Mean, Sd) UCL	24.38
97.5% Chebyshev(Mean, Sd) UCL	29.44
99% Chebyshev(Mean, Sd) UCL	39.37

Potential UCL to Use

Use 95% Approximate Gamma UCL 20.51

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Copper - Area 3

General Statistics

Number of Valid Observations 32

Number of Distinct Observations 30

Raw Statistics

Minimum	70
Maximum	1100
Mean	416.9
Median	307.5
SD	300
Coefficient of Variation	0.72
Skewness	0.828

Log-transformed Statistics

Minimum of Log Data	4.248
Maximum of Log Data	7.003
Mean of log Data	5.762
SD of log Data	0.775

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.883
Shapiro Wilk Critical Value	0.93

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	506.8

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	512.4
95% Modified-t UCL (Johnson-1978)	508.1

Gamma Distribution Test

k star (bias corrected)	1.828
Theta Star	228.1
MLE of Mean	416.9
MLE of Standard Deviation	308.3
nu star	117
Approximate Chi Square Value (.05)	93.01
Adjusted Level of Significance	0.0416
Adjusted Chi Square Value	91.87
Anderson-Darling Test Statistic	0.545
Anderson-Darling 5% Critical Value	0.759
Kolmogorov-Smirnov Test Statistic	0.128
Kolmogorov-Smirnov 5% Critical Value	0.158

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	524.3
95% Adjusted Gamma UCL	530.8

Potential UCL to Use

Use 95% Approximate Gamma UCL 524.3

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.955
Shapiro Wilk Critical Value	0.93

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	581.5
95% Chebyshev (MVUE) UCL	702.7
97.5% Chebyshev (MVUE) UCL	823.2
99% Chebyshev (MVUE) UCL	1060

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	504.1
95% Jackknife UCL	506.8
95% Standard Bootstrap UCL	501.8
95% Bootstrap-t UCL	519.9
95% Hall's Bootstrap UCL	509.2
95% Percentile Bootstrap UCL	500.2
95% BCA Bootstrap UCL	508.2
95% Chebyshev(Mean, Sd) UCL	648
97.5% Chebyshev(Mean, Sd) UCL	748
99% Chebyshev(Mean, Sd) UCL	944.5

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Iron - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 16

Raw Statistics

Minimum	8900
Maximum	272000
Mean	56361
Median	49800
SD	60089
Coefficient of Variation	1.066
Skewness	3.007

Log-transformed Statistics

Minimum of Log Data	9.094
Maximum of Log Data	12.51
Mean of log Data	10.58
SD of log Data	0.858

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.628
Shapiro Wilk Critical Value	0.897

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.92
Shapiro Wilk Critical Value	0.897

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	80999

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	90385
95% Modified-t UCL (Johnson-1978)	82673

Assuming Lognormal Distribution

95% H-UCL	94482
95% Chebyshev (MVUE) UCL	108467
97.5% Chebyshev (MVUE) UCL	131441
99% Chebyshev (MVUE) UCL	176570

Gamma Distribution Test

k star (bias corrected)	1.317
Theta Star	42793
MLE of Mean	56361
MLE of Standard Deviation	49111
nu star	47.41
Approximate Chi Square Value (.05)	32.61
Adjusted Level of Significance	0.0357
Adjusted Chi Square Value	31.43
Anderson-Darling Test Statistic	0.91
Anderson-Darling 5% Critical Value	0.756
Kolmogorov-Smirnov Test Statistic	0.23
Kolmogorov-Smirnov 5% Critical Value	0.207

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	81944
95% Adjusted Gamma UCL	85013

Data Distribution

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	79657
95% Jackknife UCL	80999
95% Standard Bootstrap UCL	78161
95% Bootstrap-t UCL	111969
95% Hall's Bootstrap UCL	195859
95% Percentile Bootstrap UCL	81856
95% BCA Bootstrap UCL	93867
95% Chebyshev(Mean, Sd) UCL	118097
97.5% Chebyshev(Mean, Sd) UCL	144810
99% Chebyshev(Mean, Sd) UCL	197283

Potential UCL to Use

Use 95% H-UCL 94482

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Lead - Area 3

General Statistics

Number of Valid Observations 32

Number of Distinct Observations 30

Raw Statistics

Minimum	14.8
Maximum	89200
Mean	4275
Median	420.5
SD	15688
Coefficient of Variation	3.669
Skewness	5.448

Log-transformed Statistics

Minimum of Log Data	2.695
Maximum of Log Data	11.4
Mean of log Data	6.348
SD of log Data	1.878

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.276
Shapiro Wilk Critical Value	0.93

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.98
Shapiro Wilk Critical Value	0.93

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	8977

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	11691
95% Modified-t UCL (Johnson-1978)	9423

Assuming Lognormal Distribution

95% H-UCL	11385
95% Chebyshev (MVUE) UCL	8571
97.5% Chebyshev (MVUE) UCL	11020
99% Chebyshev (MVUE) UCL	15829

Gamma Distribution Test

k star (bias corrected)	0.326
Theta Star	13132
MLE of Mean	4275
MLE of Standard Deviation	7493
nu star	20.84
Approximate Chi Square Value (.05)	11.47
Adjusted Level of Significance	0.0416
Adjusted Chi Square Value	11.1
Anderson-Darling Test Statistic	2.454
Anderson-Darling 5% Critical Value	0.847
Kolmogorov-Smirnov Test Statistic	0.21
Kolmogorov-Smirnov 5% Critical Value	0.168

Data not Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	8837
95% Jackknife UCL	8977
95% Standard Bootstrap UCL	8782
95% Bootstrap-t UCL	32486
95% Hall's Bootstrap UCL	24428
95% Percentile Bootstrap UCL	9451
95% BCA Bootstrap UCL	12858
95% Chebyshev(Mean, Sd) UCL	16364
97.5% Chebyshev(Mean, Sd) UCL	21594
99% Chebyshev(Mean, Sd) UCL	31869

Assuming Gamma Distribution

95% Approximate Gamma UCL	7767
95% Adjusted Gamma UCL	8027

Potential UCL to Use

Use 95% Chebyshev (Mean, Sd) UCL 16364

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Magnesium - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 17

Raw Statistics		Log-transformed Statistics	
Minimum	116	Minimum of Log Data	4.754
Maximum	5300	Maximum of Log Data	8.575
Mean	2184	Mean of log Data	7.012
Median	1460	SD of log Data	1.379
SD	2004		
Coefficient of Variation	0.918		
Skewness	0.459		

Relevant UCL Statistics

Normal Distribution Test		Lognormal Distribution Test	
Shapiro Wilk Test Statistic	0.84	Shapiro Wilk Test Statistic	0.866
Shapiro Wilk Critical Value	0.897	Shapiro Wilk Critical Value	0.897
Data not Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	
Assuming Normal Distribution		**Assuming Lognormal Distribution**	
95% Student's-t UCL	3006	95% H-UCL	8473
95% UCLs (Adjusted for Skewness)		95% Chebyshev (MVUE) UCL	6950
95% Adjusted-CLT UCL (Chen-1995)	3016	97.5% Chebyshev (MVUE) UCL	8821
95% Modified-t UCL (Johnson-1978)	3014	99% Chebyshev (MVUE) UCL	12498

Gamma Distribution Test		Data Distribution	
k star (bias corrected)	0.76	Data do not follow a Discernable Distribution (0.05)	
Theta Star	2873		
MLE of Mean	2184		
MLE of Standard Deviation	2505		
nu star	27.36		
Approximate Chi Square Value (.05)	16.43	**Nonparametric Statistics**	
Adjusted Level of Significance	0.0357	95% CLT UCL	2961
Adjusted Chi Square Value	15.62	95% Jackknife UCL	3006
		95% Standard Bootstrap UCL	2931
Anderson-Darling Test Statistic	0.898	95% Bootstrap-t UCL	3084
Anderson-Darling 5% Critical Value	0.773	95% Hall's Bootstrap UCL	2959
Kolmogorov-Smirnov Test Statistic	0.223	95% Percentile Bootstrap UCL	2935
Kolmogorov-Smirnov 5% Critical Value	0.21	95% BCA Bootstrap UCL	2988
Data not Gamma Distributed at 5% Significance Level		95% Chebyshev(Mean, Sd) UCL	4243
		97.5% Chebyshev(Mean, Sd) UCL	5134
Assuming Gamma Distribution		99% Chebyshev(Mean, Sd) UCL	6885
95% Approximate Gamma UCL	3637		
95% Adjusted Gamma UCL	3826		

Potential UCL to Use — Use 95% Chebyshev (Mean, Sd) UCL 4243

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Manganese - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 18

Raw Statistics

Minimum 40
Maximum 16000
Mean 3377
Median 555.5
SD 4729
Coefficient of Variation 1.4
Skewness 1.497

Log-transformed Statistics

Minimum of Log Data 3.689
Maximum of Log Data 9.68
Mean of log Data 6.5
SD of log Data 2.184

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic 0.752
Shapiro Wilk Critical Value 0.897
Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic 0.883
Shapiro Wilk Critical Value 0.897
Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 5316

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995) 5631
95% Modified-t UCL (Johnson-1978) 5381

Assuming Lognormal Distribution

95% H-UCL 84592
95% Chebyshev (MVUE) UCL 18930
97.5% Chebyshev (MVUE) UCL 24906
99% Chebyshev (MVUE) UCL 36644

Gamma Distribution Test

k star (bias corrected) 0.374
Theta Star 9029
MLE of Mean 3377
MLE of Standard Deviation 5522
nu star 13.46
Approximate Chi Square Value (.05) 6.206
Adjusted Level of Significance 0.0357
Adjusted Chi Square Value 5.738

Anderson-Darling Test Statistic 0.94
Anderson-Darling 5% Critical Value 0.82
Kolmogorov-Smirnov Test Statistic 0.209
Kolmogorov-Smirnov 5% Critical Value 0.218
Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL 7326
95% Adjusted Gamma UCL 7924

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL 5210
95% Jackknife UCL 5316
95% Standard Bootstrap UCL 5169
95% Bootstrap-t UCL 5909
95% Hall's Bootstrap UCL 5783
95% Percentile Bootstrap UCL 5247
95% BCA Bootstrap UCL 5475
95% Chebyshev(Mean, Sd) UCL 8235
97.5% Chebyshev(Mean, Sd) UCL 10337
99% Chebyshev(Mean, Sd) UCL 14467

Potential UCL to Use

Use 95% Adjusted Gamma UCL 7924

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Mercury - Area 3

General Statistics

Number of Valid Observations 32

Number of Distinct Observations 31

Raw Statistics

Minimum	0.069
Maximum	3.72
Mean	0.943
Median	0.695
SD	0.889
Coefficient of Variation	0.943
Skewness	1.572

Log-transformed Statistics

Minimum of Log Data	-2.674
Maximum of Log Data	1.314
Mean of log Data	-0.545
SD of log Data	1.113

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.832
Shapiro Wilk Critical Value	0.93

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	1.21

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1.248
95% Modified-t UCL (Johnson-1978)	1.217

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.932
Shapiro Wilk Critical Value	0.93

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	1.8
95% Chebyshev (MVUE) UCL	2.104
97.5% Chebyshev (MVUE) UCL	2.562
99% Chebyshev (MVUE) UCL	3.461

Gamma Distribution Test

k star (bias corrected)	1.079
Theta Star	0.874
MLE of Mean	0.943
MLE of Standard Deviation	0.908
nu star	69.05
Approximate Chi Square Value (.05)	50.92
Adjusted Level of Significance	0.0416
Adjusted Chi Square Value	50.08
Anderson-Darling Test Statistic	0.414
Anderson-Darling 5% Critical Value	0.772
Kolmogorov-Smirnov Test Statistic	0.107
Kolmogorov-Smirnov 5% Critical Value	0.159

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	1.279
95% Adjusted Gamma UCL	1.3

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	1.202
95% Jackknife UCL	1.21
95% Standard Bootstrap UCL	1.195
95% Bootstrap-t UCL	1.288
95% Hall's Bootstrap UCL	1.272
95% Percentile Bootstrap UCL	1.216
95% BCA Bootstrap UCL	1.271
95% Chebyshev(Mean, Sd) UCL	1.628
97.5% Chebyshev(Mean, Sd) UCL	1.925
99% Chebyshev(Mean, Sd) UCL	2.507

Potential UCL to Use

Use 95% Approximate Gamma UCL 1.279

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Nickel - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 17

Raw Statistics

Minimum	1.2
Maximum	82.7
Mean	13.98
Median	7.3
SD	20.1
Coefficient of Variation	1.437
Skewness	2.696

Log-transformed Statistics

Minimum of Log Data	0.182
Maximum of Log Data	4.415
Mean of log Data	1.893
SD of log Data	1.262

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.652
Shapiro Wilk Critical Value	0.897

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	22.22

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	24.99
95% Modified-t UCL (Johnson-1978)	22.73

Gamma Distribution Test

k star (bias corrected)	0.701
Theta Star	19.94
MLE of Mean	13.98
MLE of Standard Deviation	16.7
nu star	25.24
Approximate Chi Square Value (.05)	14.8
Adjusted Level of Significance	0.0357
Adjusted Chi Square Value	14.03
Anderson-Darling Test Statistic	0.569
Anderson-Darling 5% Critical Value	0.776
Kolmogorov-Smirnov Test Statistic	0.181
Kolmogorov-Smirnov 5% Critical Value	0.211

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	23.85
95% Adjusted Gamma UCL	25.16

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.952
Shapiro Wilk Critical Value	0.897

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	37.33
95% Chebyshev (MVUE) UCL	34.11
97.5% Chebyshev (MVUE) UCL	42.94
99% Chebyshev (MVUE) UCL	60.28

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	21.78
95% Jackknife UCL	22.22
95% Standard Bootstrap UCL	21.53
95% Bootstrap-t UCL	29.81
95% Hall's Bootstrap UCL	52.36
95% Percentile Bootstrap UCL	22.18
95% BCA Bootstrap UCL	25.13
95% Chebyshev(Mean, Sd) UCL	34.63
97.5% Chebyshev(Mean, Sd) UCL	43.57
99% Chebyshev(Mean, Sd) UCL	61.12

Potential UCL to Use

Use 95% Approximate Gamma UCL 23.85

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

pH - Area 3

General Statistics

Number of Valid Observations 31

Number of Distinct Observations 26

Raw Statistics

Minimum	1.7
Maximum	6.18
Mean	4.361
Median	4.2
SD	1.02
Coefficient of Variation	0.234
Skewness	-0.212

Log-transformed Statistics

Minimum of Log Data	0.531
Maximum of Log Data	1.821
Mean of log Data	1.442
SD of log Data	0.263

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.974
Shapiro Wilk Critical Value	0.929

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 4.672

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	4.655
95% Modified-t UCL (Johnson-1978)	4.671

Gamma Distribution Test

k star (bias corrected)	15.01
Theta Star	0.291
MLE of Mean	4.361
MLE of Standard Deviation	1.126
nu star	930.6
Approximate Chi Square Value (.05)	860.8
Adjusted Level of Significance	0.0413
Adjusted Chi Square Value	857.1
Anderson-Darling Test Statistic	0.346
Anderson-Darling 5% Critical Value	0.745
Kolmogorov-Smirnov Test Statistic	0.0902
Kolmogorov-Smirnov 5% Critical Value	0.158

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	4.715
95% Adjusted Gamma UCL	4.735

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.914
Shapiro Wilk Critical Value	0.929

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	4.768
95% Chebyshev (MVUE) UCL	5.287
97.5% Chebyshev (MVUE) UCL	5.681
99% Chebyshev (MVUE) UCL	6.457

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	4.662
95% Jackknife UCL	4.672
95% Standard Bootstrap UCL	4.662
95% Bootstrap-t UCL	4.659
95% Hall's Bootstrap UCL	4.665
95% Percentile Bootstrap UCL	4.659
95% BCA Bootstrap UCL	4.639
95% Chebyshev(Mean, Sd) UCL	5.16
97.5% Chebyshev(Mean, Sd) UCL	5.505
99% Chebyshev(Mean, Sd) UCL	6.184

Potential UCL to Use

Use 95% Student's-t UCL 4.672

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Potassium - Area 3

General Statistics

Number of Valid Data	18	Number of Detected Data	17
Number of Distinct Detected Data	16	Number of Non-Detect Data	1
		Percent Non-Detects	5.56%

Raw Statistics

Minimum Detected	71
Maximum Detected	3370
Mean of Detected	1309
SD of Detected	969.2
Minimum Non-Detect	1000
Maximum Non-Detect	1000

Log-transformed Statistics

Minimum Detected	4.263
Maximum Detected	8.123
Mean of Detected	6.697
SD of Detected	1.25
Minimum Non-Detect	6.908
Maximum Non-Detect	6.908

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.932
5% Shapiro Wilk Critical Value	0.892

Data appear Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.824
5% Shapiro Wilk Critical Value	0.892

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	1264
SD	959.4
95% DL/2 (t) UCL	1658
Maximum Likelihood Estimate(MLE) Method	
Mean	1224
SD	1015
95% MLE (t) UCL	1640
95% MLE (Tiku) UCL	1689

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	6.67
SD	1.218
95% H-Stat (DL/2) UCL	3982
Log ROS Method	
Mean in Log Scale	6.632
SD in Log Scale	1.244
Mean in Original Scale	1250
SD in Original Scale	972.8
95% t UCL	1649
95% Percentile Bootstrap UCL	1648
95% BCA Bootstrap UCL	1640

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.011
Theta Star	1295
nu star	34.38
A-D Test Statistic	0.838
5% A-D Critical Value	0.762
K-S Test Statistic	0.762
5% K-S Critical Value	0.214

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	71
Maximum	3370
Mean	1257
Median	1200
SD	965.7
k star	1.016
Theta star	1237
Nu star	36.58
AppChi2	23.74
95% Gamma Approximate UCL	1937
95% Adjusted Gamma UCL	2022

Data Distribution Test with Detected Values Only

Data appear Normal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	1256
SD	943.4
SE of Mean	230.2
95% KM (t) UCL	1656
95% KM (z) UCL	1634
95% KM (jackknife) UCL	1656
95% KM (bootstrap t) UCL	1695
95% KM (BCA) UCL	1638
95% KM (Percentile Bootstrap) UCL	1646
95% KM (Chebyshev) UCL	1259
97.5% KM (Chebyshev) UCL	2693
99% KM (Chebyshev) UCL	3546

Potential UCLs to Use

95% KM (t) UCL	1656
95% KM (Percentile Bootstrap) UCL	1646

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Selenium - Area 3

General Statistics

Number of Valid Data	32	Number of Detected Data	22
Number of Distinct Detected Data	20	Number of Non-Detect Data	10
		Percent Non-Detects	31.25%

Raw Statistics

Minimum Detected	0.19
Maximum Detected	17.4
Mean of Detected	1.716
SD of Detected	3.533
Minimum Non-Detect	0.5
Maximum Non-Detect	50

Log-transformed Statistics

Minimum Detected	-1.661
Maximum Detected	2.856
Mean of Detected	-0.0308
SD of Detected	0.856
Minimum Non-Detect	-0.693
Maximum Non-Detect	3.912

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	32
Number treated as Detected	0
Single DL Non-Detect Percentage	100.00%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.333
5% Shapiro Wilk Critical Value	0.911

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	4.175
SD	7.058
95% DL/2 (t) UCL	6.291
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.853
5% Shapiro Wilk Critical Value	0.911

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	0.382
SD	1.376
95% H-Stat (DL/2) UCL	7.769
Log ROS Method	
Mean in Log Scale	-0.159
SD in Log Scale	0.791
Mean in Original Scale	1.411
SD in Original Scale	2.952
95% t UCL	2.296
95% Percentile Bootstrap UCL	2.443
95% BCA Bootstrap UCL	3.015

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.903
Theta Star	1.901
nu star	39.72
A-D Test Statistic	2.51
5% A-D Critical Value	0.771
K-S Test Statistic	0.771
5% K-S Critical Value	0.191

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1E-12
Maximum	17.4
Mean	1.636
Median	0.931
SD	3.006
k star	0.307
Theta star	5.329
Nu star	19.64
AppChi2	10.59
95% Gamma Approximate UCL	3.034
95% Adjusted Gamma UCL	3.14

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	1.489
SD	3.096
SE of Mean	0.6
95% KM (t) UCL	2.506
95% KM (z) UCL	2.476
95% KM (jackknife) UCL	2.504
95% KM (bootstrap t) UCL	6.3
95% KM (BCA) UCL	2.777
95% KM (Percentile Bootstrap) UCL	2.596
95% KM (Chebyshev) UCL	4.104
97.5% KM (Chebyshev) UCL	5.235
99% KM (Chebyshev) UCL	7.457

Potential UCLs to Use

95% KM (BCA) UCL	2.777

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Silver - Area 3

General Statistics

Number of Valid Data	32	Number of Detected Data	27
Number of Distinct Detected Data	26	Number of Non-Detect Data	5
		Percent Non-Detects	15.63%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.66	Minimum Detected	-0.416
Maximum Detected	307	Maximum Detected	5.727
Mean of Detected	43.95	Mean of Detected	2.13
SD of Detected	88.95	SD of Detected	1.863
Minimum Non-Detect	0.3	Minimum Non-Detect	-1.204
Maximum Non-Detect	30	Maximum Non-Detect	3.401

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	26
Number treated as Detected	6
Single DL Non-Detect Percentage	81.25%

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.526	Shapiro Wilk Test Statistic	0.938
5% Shapiro Wilk Critical Value	0.923	5% Shapiro Wilk Critical Value	0.923
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	38.34	Mean	2.008
SD	82.57	SD	1.859
95% DL/2 (t) UCL	63.09	95% H-Stat (DL/2) UCL	140.3
Maximum Likelihood Estimate(MLE) Method	N/A	Log ROS Method	
MLE yields a negative mean		Mean in Log Scale	1.849
		SD in Log Scale	1.93
		Mean in Original Scale	37.54
		SD in Original Scale	82.86
		95% t UCL	62.38
		95% Percentile Bootstrap UCL	62.95
		95% BCA Bootstrap UCL	71.12

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	0.379	Data Follow Appr. Gamma Distribution at 5% Significance Level	
Theta Star	116		
nu star	20.45		
A-D Test Statistic	1.678	Nonparametric Statistics	
5% A-D Critical Value	0.831	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.831	Mean	37.69
5% K-S Critical Value	0.18	SD	81.52
Data follow Appr. Gamma Distribution at 5% Significance Level		SE of Mean	14.69
		95% KM (t) UCL	62.6
Assuming Gamma Distribution		95% KM (z) UCL	61.85
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	62.52
Minimum	0.66	95% KM (bootstrap t) UCL	82
Maximum	307	95% KM (BCA) UCL	63.99
Mean	40.68	95% KM (Percentile Bootstrap) UCL	62.49
Median	9.554	95% KM (Chebyshev) UCL	101.7
SD	82.05	97.5% KM (Chebyshev) UCL	129.4
k star	0.425	99% KM (Chebyshev) UCL	183.8
Theta star	95.65		
Nu star	27.22	Potential UCLs to Use	
AppChi2	16.32	95% KM (Chebyshev) UCL	101.7
95% Gamma Approximate UCL	67.84		
95% Adjusted Gamma UCL	69.78		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Sodium - Area 3

General Statistics

Number of Valid Data	18	Number of Detected Data	14
Number of Distinct Detected Data	11	Number of Non-Detect Data	4
		Percent Non-Detects	22.22%

Raw Statistics

Minimum Detected	100
Maximum Detected	480
Mean of Detected	243.1
SD of Detected	115.3
Minimum Non-Detect	50
Maximum Non-Detect	50

Log-transformed Statistics

Minimum Detected	4.605
Maximum Detected	6.174
Mean of Detected	5.386
SD of Detected	0.49
Minimum Non-Detect	3.912
Maximum Non-Detect	3.912

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.94
5% Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	194.7
SD	137.4
95% DL/2 (t) UCL	251
Maximum Likelihood Estimate(MLE) Method	
Mean	180.8
SD	156.1
95% MLE (t) UCL	244.8
95% MLE (Tiku) UCL	247.7

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.964
5% Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	4.905
SD	1.021
95% H-Stat (DL/2) UCL	440.2
Log ROS Method	
Mean in Log Scale	5.126
SD in Log Scale	0.667
Mean in Original Scale	204.5
SD in Original Scale	125.5
95% t UCL	255.9
95% Percentile Bootstrap UCL	253.4
95% BCA Bootstrap UCL	255.9

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	3.833
Theta Star	63.44
nu star	107.3
A-D Test Statistic	0.184
5% A-D Critical Value	0.738
K-S Test Statistic	0.738
5% K-S Critical Value	0.229

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	36.7
Maximum	480
Mean	212.3
Median	185
SD	119.1
k star	2.681
Theta star	79.17
Nu star	96.52
AppChi2	74.86
95% Gamma Approximate UCL	273.7
95% Adjusted Gamma UCL	280.5

Data Distribution Test with Detected Values Only

Data appear Normal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	211.3
SD	114.6
SE of Mean	28.03
95% KM (t) UCL	260.1
95% KM (z) UCL	257.4
95% KM (jackknife) UCL	259.7
95% KM (bootstrap t) UCL	269.9
95% KM (BCA) UCL	258.8
95% KM (Percentile Bootstrap) UCL	262.8
95% KM (Chebyshev) UCL	333.5
97.5% KM (Chebyshev) UCL	386.4
99% KM (Chebyshev) UCL	490.3

Potential UCLs to Use

95% KM (t) UCL	260.1
95% KM (Percentile Bootstrap) UCL	262.8

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Thallium - Area 3

General Statistics

Number of Valid Data	18	Number of Detected Data	13
Number of Distinct Detected Data	12	Number of Non-Detect Data	5
		Percent Non-Detects	27.78%

Raw Statistics

Minimum Detected	0.12
Maximum Detected	7.3
Mean of Detected	2.76
SD of Detected	2.558
Minimum Non-Detect	0.12
Maximum Non-Detect	1.5

Log-transformed Statistics

Minimum Detected	-2.12
Maximum Detected	1.988
Mean of Detected	0.201
SD of Detected	1.616
Minimum Non-Detect	-2.12
Maximum Non-Detect	0.405

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	10
Number treated as Detected	8
Single DL Non-Detect Percentage	55.56%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.881
5% Shapiro Wilk Critical Value	0.866

Data appear Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.843
5% Shapiro Wilk Critical Value	0.866

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	2.053
SD	2.453
95% DL/2 (t) UCL	3.059
Maximum Likelihood Estimate(MLE) Method	
Mean	1.126
SD	3.525
95% MLE (t) UCL	2.572
95% MLE (Tiku) UCL	3.026

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	-0.436
SD	1.795
95% H-Stat (DL/2) UCL	18.07
Log ROS Method	
Mean in Log Scale	-0.551
SD in Log Scale	1.883
Mean in Original Scale	2.021
SD in Original Scale	2.475
95% t UCL	3.035
95% Percentile Bootstrap UCL	3.015
95% BCA Bootstrap UCL	3.101

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	0.618
Theta Star	4.464
nu star	16.08
A-D Test Statistic	0.704
5% A-D Critical Value	0.771
K-S Test Statistic	0.771
5% K-S Critical Value	0.246

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	0.12
Maximum	7.3
Mean	2.266
Median	1.359
SD	2.313
k star	0.72
Theta star	3.149
Nu star	25.9
AppChi2	15.3
95% Gamma Approximate UCL	3.834
95% Adjusted Gamma UCL	4.04

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data appear Normal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	2.03
SD	2.398
SE of Mean	0.588
95% KM (t) UCL	3.053
95% KM (z) UCL	2.998
95% KM (jackknife) UCL	3.042
95% KM (bootstrap t) UCL	3.213
95% KM (BCA) UCL	2.989
95% KM (Percentile Bootstrap) UCL	3.028
95% KM (Chebyshev) UCL	4.594
97.5% KM (Chebyshev) UCL	5.704
99% KM (Chebyshev) UCL	7.883

Potential UCLs to Use

95% KM (t) UCL	3.053
95% KM (Percentile Bootstrap) UCL	3.028

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Vanadium - Area 3

General Statistics

Number of Valid Observations 18

Number of Distinct Observations 17

Raw Statistics

Minimum	5.94
Maximum	84
Mean	41
Median	34.35
SD	23.38
Coefficient of Variation	0.57
Skewness	0.371

Log-transformed Statistics

Minimum of Log Data	1.782
Maximum of Log Data	4.431
Mean of log Data	3.514
SD of log Data	0.718

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.948
Shapiro Wilk Critical Value	0.897

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.926
Shapiro Wilk Critical Value	0.897

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 50.59

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	50.58
95% Modified-t UCL (Johnson-1978)	50.67

Assuming Lognormal Distribution

95% H-UCL	64.39
95% Chebyshev (MVUE) UCL	76.25
97.5% Chebyshev (MVUE) UCL	90.77
99% Chebyshev (MVUE) UCL	119.3

Gamma Distribution Test

k star (bias corrected)	2.251
Theta Star	18.22
MLE of Mean	41
MLE of Standard Deviation	27.33
nu star	81.02
Approximate Chi Square Value (.05)	61.28
Adjusted Level of Significance	0.0357
Adjusted Chi Square Value	59.63
Anderson-Darling Test Statistic	0.292
Anderson-Darling 5% Critical Value	0.748
Kolmogorov-Smirnov Test Statistic	0.138
Kolmogorov-Smirnov 5% Critical Value	0.205

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	54.21
95% Adjusted Gamma UCL	55.71

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	50.07
95% Jackknife UCL	50.59
95% Standard Bootstrap UCL	49.71
95% Bootstrap-t UCL	51.59
95% Hall's Bootstrap UCL	50.34
95% Percentile Bootstrap UCL	50.16
95% BCA Bootstrap UCL	50.04
95% Chebyshev(Mean, Sd) UCL	65.02
97.5% Chebyshev(Mean, Sd) UCL	75.42
99% Chebyshev(Mean, Sd) UCL	95.84

Potential UCL to Use

Use 95% Student's-t UCL 50.59

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Zinc - Area 3

General Statistics

Number of Valid Observations 32

Number of Distinct Observations 30

Raw Statistics

Minimum	14
Maximum	3550
Mean	736.5
Median	500
SD	873.5
Coefficient of Variation	1.186
Skewness	2.202

Log-transformed Statistics

Minimum of Log Data	2.639
Maximum of Log Data	8.175
Mean of log Data	5.777
SD of log Data	1.586

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.738
Shapiro Wilk Critical Value	0.93

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.903
Shapiro Wilk Critical Value	0.93

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	998.3

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1055
95% Modified-t UCL (Johnson-1978)	1008

Assuming Lognormal Distribution

95% H-UCL	2834
95% Chebyshev (MVUE) UCL	2697
97.5% Chebyshev (MVUE) UCL	3411
99% Chebyshev (MVUE) UCL	4813

Gamma Distribution Test

k star (bias corrected)	0.681
Theta Star	1081
MLE of Mean	736.5
MLE of Standard Deviation	892.3
nu star	43.6
Approximate Chi Square Value (.05)	29.46
Adjusted Level of Significance	0.0416
Adjusted Chi Square Value	28.83
Anderson-Darling Test Statistic	0.37
Anderson-Darling 5% Critical Value	0.79
Kolmogorov-Smirnov Test Statistic	0.0964
Kolmogorov-Smirnov 5% Critical Value	0.162

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	1090
95% Adjusted Gamma UCL	1114

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	990.5
95% Jackknife UCL	998.3
95% Standard Bootstrap UCL	988.9
95% Bootstrap-t UCL	1140
95% Hall's Bootstrap UCL	1368
95% Percentile Bootstrap UCL	1008
95% BCA Bootstrap UCL	1054
95% Chebyshev(Mean, Sd) UCL	1410
97.5% Chebyshev(Mean, Sd) UCL	1701
99% Chebyshev(Mean, Sd) UCL	2273

Potential UCL to Use

Use 95% Approximate Gamma UCL 1090

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\Area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 22

Raw Statistics

Minimum	1200
Maximum	28200
Mean	12356
Median	11000
SD	7607
Coefficient of Variation	0.616
Skewness	0.544

Log-transformed Statistics

Minimum of Log Data	7.09
Maximum of Log Data	10.25
Mean of log Data	9.183
SD of log Data	0.791

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.949
Shapiro Wilk Critical Value	0.916

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.931
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 15017

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	15094
95% Modified-t UCL (Johnson-1978)	15046

Assuming Lognormal Distribution

95% H-UCL	19379
95% Chebyshev (MVUE) UCL	23137
97.5% Chebyshev (MVUE) UCL	27488
99% Chebyshev (MVUE) UCL	36033

Gamma Distribution Test

k star (bias corrected)	1.989
Theta Star	6213
MLE of Mean	12356
MLE of Standard Deviation	8762
nu star	95.46
Approximate Chi Square Value (.05)	73.92
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	72.59
Anderson-Darling Test Statistic	0.244
Anderson-Darling 5% Critical Value	0.754
Kolmogorov-Smirnov Test Statistic	0.094
Kolmogorov-Smirnov 5% Critical Value	0.18

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	15956
95% Adjusted Gamma UCL	16249

Nonparametric Statistics

95% CLT UCL	14910
95% Jackknife UCL	15017
95% Standard Bootstrap UCL	14840
95% Bootstrap-t UCL	15341
95% Hall's Bootstrap UCL	15082
95% Percentile Bootstrap UCL	15004
95% BCA Bootstrap UCL	14980
95% Chebyshev(Mean, Sd) UCL	19124
97.5% Chebyshev(Mean, Sd) UCL	22053
99% Chebyshev(Mean, Sd) UCL	27806

Potential UCL to Use

Use 95% Student's-t UCL 15017

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Antimony - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 24

Raw Statistics

Minimum	3.4
Maximum	2690
Mean	330.6
Median	41
SD	631.2
Coefficient of Variation	1.909
Skewness	2.801

Log-transformed Statistics

Minimum of Log Data	1.224
Maximum of Log Data	7.897
Mean of log Data	4.059
SD of log Data	2.085

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.587
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	551.4

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	621.3
95% Modified-t UCL (Johnson-1978)	563.7

Gamma Distribution Test

k star (bias corrected)	0.361
Theta Star	916.1
MLE of Mean	330.6
MLE of Standard Deviation	550.4
nu star	17.32
Approximate Chi Square Value (.05)	8.904
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	8.48
Anderson-Darling Test Statistic	0.934
Anderson-Darling 5% Critical Value	0.833
Kolmogorov-Smirnov Test Statistic	0.176
Kolmogorov-Smirnov 5% Critical Value	0.191

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	643.3
95% Adjusted Gamma UCL	675.4

Potential UCL to Use

Use 95% Adjusted Gamma UCL 675.4

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.942
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	3206
95% Chebyshev (MVUE) UCL	1364
97.5% Chebyshev (MVUE) UCL	1780
99% Chebyshev (MVUE) UCL	2598

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	542.6
95% Jackknife UCL	551.4
95% Standard Bootstrap UCL	537.5
95% Bootstrap-t UCL	816.2
95% Hall's Bootstrap UCL	1249
95% Percentile Bootstrap UCL	550.3
95% BCA Bootstrap UCL	643
95% Chebyshev(Mean, Sd) UCL	892.2
97.5% Chebyshev(Mean, Sd) UCL	1135
99% Chebyshev(Mean, Sd) UCL	1613

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Arsenic - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 22

Raw Statistics

Minimum	89
Maximum	102000
Mean	14906
Median	2850
SD	26133
Coefficient of Variation	1.753
Skewness	2.547

Log-transformed Statistics

Minimum of Log Data	4.489
Maximum of Log Data	11.53
Mean of log Data	8.297
SD of log Data	1.805

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.599
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.974
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	24048

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	26643
95% Modified-t UCL (Johnson-1978)	24510

Assuming Lognormal Distribution

95% H-UCL	84445
95% Chebyshev (MVUE) UCL	53331
97.5% Chebyshev (MVUE) UCL	68807
99% Chebyshev (MVUE) UCL	99206

Gamma Distribution Test

k star (bias corrected)	0.453
Theta Star	32895
MLE of Mean	14906
MLE of Standard Deviation	22143
nu star	21.75
Approximate Chi Square Value (.05)	12.15
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	11.65
Anderson-Darling Test Statistic	0.817
Anderson-Darling 5% Critical Value	0.809
Kolmogorov-Smirnov Test Statistic	0.194
Kolmogorov-Smirnov 5% Critical Value	0.188

Data not Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Lognormal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	26681
95% Adjusted Gamma UCL	27836

Nonparametric Statistics

95% CLT UCL	23680
95% Jackknife UCL	24048
95% Standard Bootstrap UCL	23456
95% Bootstrap-t UCL	34907
95% Hall's Bootstrap UCL	60841
95% Percentile Bootstrap UCL	24423
95% BCA Bootstrap UCL	26919
95% Chebyshev(Mean, Sd) UCL	38158
97.5% Chebyshev(Mean, Sd) UCL	48219
99% Chebyshev(Mean, Sd) UCL	67981

Potential UCL to Use

Use 95% Chebyshev (Mean, Sd) UCL 38158

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Barium - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 23

Raw Statistics

Minimum	7
Maximum	125
Mean	44.91
Median	36
SD	29.87
Coefficient of Variation	0.665
Skewness	1.355

Log-transformed Statistics

Minimum of Log Data	1.946
Maximum of Log Data	4.828
Mean of log Data	3.601
SD of log Data	0.674

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.871
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.978
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	55.36

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	56.74
95% Modified-t UCL (Johnson-1978)	55.64

Assuming Lognormal Distribution

95% H-UCL	62.2
95% Chebyshev (MVUE) UCL	74.62
97.5% Chebyshev (MVUE) UCL	87.24
99% Chebyshev (MVUE) UCL	112

Gamma Distribution Test

k star (bias corrected)	2.307
Theta Star	19.47
MLE of Mean	44.91
MLE of Standard Deviation	29.57
nu star	110.8
Approximate Chi Square Value (.05)	87.46
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	86
Anderson-Darling Test Statistic	0.285
Anderson-Darling 5% Critical Value	0.753
Kolmogorov-Smirnov Test Statistic	0.127
Kolmogorov-Smirnov 5% Critical Value	0.18

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	56.87
95% Adjusted Gamma UCL	57.84

Nonparametric Statistics

95% CLT UCL	54.94
95% Jackknife UCL	55.36
95% Standard Bootstrap UCL	54.86
95% Bootstrap-t UCL	59.03
95% Hall's Bootstrap UCL	58.91
95% Percentile Bootstrap UCL	55.3
95% BCA Bootstrap UCL	56.48
95% Chebyshev(Mean, Sd) UCL	71.49
97.5% Chebyshev(Mean, Sd) UCL	82.99
99% Chebyshev(Mean, Sd) UCL	105.6

Potential UCL to Use

Use 95% Approximate Gamma UCL 56.87

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Beryllium - Area 4

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 14

Raw Statistics

Minimum	0.06
Maximum	0.63
Mean	0.385
Median	0.365
SD	0.165
Coefficient of Variation	0.429
Skewness	-0.262

Log-transformed Statistics

Minimum of Log Data	-2.813
Maximum of Log Data	-0.462
Mean of log Data	-1.085
SD of log Data	0.614

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.973
Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.832
Shapiro Wilk Critical Value	0.874

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	0.463

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	0.454
95% Modified-t UCL (Johnson-1978)	0.463

Assuming Lognormal Distribution

95% H-UCL	0.596
95% Chebyshev (MVUE) UCL	0.7
97.5% Chebyshev (MVUE) UCL	0.829
99% Chebyshev (MVUE) UCL	1.083

Gamma Distribution Test

k star (bias corrected)	3.176
Theta Star	0.121
MLE of Mean	0.385
MLE of Standard Deviation	0.216
nu star	88.93
Approximate Chi Square Value (.05)	68.19
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	65.78
Anderson-Darling Test Statistic	0.435
Anderson-Darling 5% Critical Value	0.74
Kolmogorov-Smirnov Test Statistic	0.144
Kolmogorov-Smirnov 5% Critical Value	0.23

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	0.502
95% Adjusted Gamma UCL	0.52

Nonparametric Statistics

95% CLT UCL	0.458
95% Jackknife UCL	0.463
95% Standard Bootstrap UCL	0.455
95% Bootstrap-t UCL	0.463
95% Hall's Bootstrap UCL	0.455
95% Percentile Bootstrap UCL	0.45
95% BCA Bootstrap UCL	0.451
95% Chebyshev(Mean, Sd) UCL	0.577
97.5% Chebyshev(Mean, Sd) UCL	0.661
99% Chebyshev(Mean, Sd) UCL	0.824

Potential UCL to Use

Use 95% Student's-t UCL 0.463

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Cadmium - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 24

Raw Statistics

Minimum	0.2
Maximum	742
Mean	87.24
Median	9.55
SD	185.2
Coefficient of Variation	2.123
Skewness	2.827

Log-transformed Statistics

Minimum of Log Data	-1.609
Maximum of Log Data	6.609
Mean of log Data	2.607
SD of log Data	2.061

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.525
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.959
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	152

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	172.7
95% Modified-t UCL (Johnson-1978)	155.7

Assuming Lognormal Distribution

95% H-UCL	686.2
95% Chebyshev (MVUE) UCL	303.4
97.5% Chebyshev (MVUE) UCL	395.6
99% Chebyshev (MVUE) UCL	576.8

Gamma Distribution Test

k star (bias corrected)	0.342
Theta Star	254.8
MLE of Mean	87.24
MLE of Standard Deviation	149.1
nu star	16.43
Approximate Chi Square Value (.05)	8.27
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	7.864
Anderson-Darling Test Statistic	1.631
Anderson-Darling 5% Critical Value	0.838
Kolmogorov-Smirnov Test Statistic	0.284
Kolmogorov-Smirnov 5% Critical Value	0.192

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	173.4
95% Adjusted Gamma UCL	182.3

Data Distribution

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	149.4
95% Jackknife UCL	152
95% Standard Bootstrap UCL	146.8
95% Bootstrap-t UCL	265.9
95% Hall's Bootstrap UCL	413.6
95% Percentile Bootstrap UCL	154.2
95% BCA Bootstrap UCL	180.7
95% Chebyshev(Mean, Sd) UCL	252
97.5% Chebyshev(Mean, Sd) UCL	323.3
99% Chebyshev(Mean, Sd) UCL	463.4

Potential UCL to Use

Use 97.5% Chebyshev (Mean, Sd) UCL 323.3

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Calcium - Area 4

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 13

Raw Statistics

Minimum	240
Maximum	5600
Mean	2302
Median	1550
SD	1789
Coefficient of Variation	0.777
Skewness	0.747

Log-transformed Statistics

Minimum of Log Data	5.481
Maximum of Log Data	8.631
Mean of log Data	7.411
SD of log Data	0.906

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.865
Shapiro Wilk Critical Value	0.874

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.945
Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	3149

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	3191
95% Modified-t UCL (Johnson-1978)	3165

Assuming Lognormal Distribution

95% H-UCL	4842
95% Chebyshev (MVUE) UCL	5122
97.5% Chebyshev (MVUE) UCL	6300
99% Chebyshev (MVUE) UCL	8614

Gamma Distribution Test

k star (bias corrected)	1.351
Theta Star	1705
MLE of Mean	2302
MLE of Standard Deviation	1981
nu star	37.82
Approximate Chi Square Value (.05)	24.73
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	23.34
Anderson-Darling Test Statistic	0.401
Anderson-Darling 5% Critical Value	0.749
Kolmogorov-Smirnov Test Statistic	0.158
Kolmogorov-Smirnov 5% Critical Value	0.232

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	3520
95% Adjusted Gamma UCL	3730

Nonparametric Statistics

95% CLT UCL	3089
95% Jackknife UCL	3149
95% Standard Bootstrap UCL	3069
95% Bootstrap-t UCL	3282
95% Hall's Bootstrap UCL	3053
95% Percentile Bootstrap UCL	3109
95% BCA Bootstrap UCL	3110
95% Chebyshev(Mean, Sd) UCL	4386
97.5% Chebyshev(Mean, Sd) UCL	5288
99% Chebyshev(Mean, Sd) UCL	7059

Potential UCL to Use

Use 95% Approximate Gamma UCL 3520

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Chromium - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 19

Raw Statistics

Minimum	0.74
Maximum	41.6
Mean	14.27
Median	14.5
SD	9.755
Coefficient of Variation	0.683
Skewness	0.825

Log-transformed Statistics

Minimum of Log Data	-0.301
Maximum of Log Data	3.728
Mean of log Data	2.321
SD of log Data	1

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.94
Shapiro Wilk Critical Value	0.916

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.888
Shapiro Wilk Critical Value	0.916

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	17.69

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	17.91
95% Modified-t UCL (Johnson-1978)	17.74

Assuming Lognormal Distribution

95% H-UCL	28.51
95% Chebyshev (MVUE) UCL	32.72
97.5% Chebyshev (MVUE) UCL	39.83
99% Chebyshev (MVUE) UCL	53.79

Gamma Distribution Test

k star (bias corrected)	1.451
Theta Star	9.835
MLE of Mean	14.27
MLE of Standard Deviation	11.85
nu star	69.66
Approximate Chi Square Value (.05)	51.45
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	50.35
Anderson-Darling Test Statistic	0.539
Anderson-Darling 5% Critical Value	0.76
Kolmogorov-Smirnov Test Statistic	0.188
Kolmogorov-Smirnov 5% Critical Value	0.181

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	19.33
95% Adjusted Gamma UCL	19.75

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	17.55
95% Jackknife UCL	17.69
95% Standard Bootstrap UCL	17.45
95% Bootstrap-t UCL	17.92
95% Hall's Bootstrap UCL	18.42
95% Percentile Bootstrap UCL	17.52
95% BCA Bootstrap UCL	17.88
95% Chebyshev(Mean, Sd) UCL	22.95
97.5% Chebyshev(Mean, Sd) UCL	26.71
99% Chebyshev(Mean, Sd) UCL	34.08

Potential UCL to Use

Use 95% Student's-t UCL 17.69

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Cobalt - Area 4

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 10

Raw Statistics

Minimum 1.7
Maximum 44
Mean 21.62
Median 23
SD 9.896
Coefficient of Variation 0.458
Skewness 0.273

Log-transformed Statistics

Minimum of Log Data 0.531
Maximum of Log Data 3.784
Mean of log Data 2.903
SD of log Data 0.761

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic 0.95
Shapiro Wilk Critical Value 0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic 0.721
Shapiro Wilk Critical Value 0.874

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 26.31

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995) 26.18
95% Modified-t UCL (Johnson-1978) 26.34

Assuming Lognormal Distribution

95% H-UCL 40.57
95% Chebyshev (MVUE) UCL 45.98
97.5% Chebyshev (MVUE) UCL 55.61
99% Chebyshev (MVUE) UCL 74.52

Gamma Distribution Test

k star (bias corrected) 2.47
Theta Star 8.754
MLE of Mean 21.62
MLE of Standard Deviation 13.76
nu star 69.16
Approximate Chi Square Value (.05) 51.02
Adjusted Level of Significance 0.0312
Adjusted Chi Square Value 48.95

Anderson-Darling Test Statistic 0.87
Anderson-Darling 5% Critical Value 0.742
Kolmogorov-Smirnov Test Statistic 0.199
Kolmogorov-Smirnov 5% Critical Value 0.23

Data follow Appr. Gamma Distribution at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL 25.97
95% Jackknife UCL 26.31
95% Standard Bootstrap UCL 25.98
95% Bootstrap-t UCL 26.51
95% Hall's Bootstrap UCL 27.48
95% Percentile Bootstrap UCL 25.86
95% BCA Bootstrap UCL 25.74
95% Chebyshev(Mean, Sd) UCL 33.15
97.5% Chebyshev(Mean, Sd) UCL 38.14
99% Chebyshev(Mean, Sd) UCL 47.94

Assuming Gamma Distribution

95% Approximate Gamma UCL 29.31
95% Adjusted Gamma UCL 30.55

Potential UCL to Use

Use 95% Student's-t UCL 26.31

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Copper - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 21

Raw Statistics

Minimum	4.1
Maximum	557
Mean	192.7
Median	149
SD	143.8
Coefficient of Variation	0.746
Skewness	1.136

Log-transformed Statistics

Minimum of Log Data	1.411
Maximum of Log Data	6.323
Mean of log Data	4.923
SD of log Data	1.015

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.875
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.855
Shapiro Wilk Critical Value	0.916

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	242.9

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	248.2
95% Modified-t UCL (Johnson-1978)	244.1

Assuming Lognormal Distribution

95% H-UCL	395.7
95% Chebyshev (MVUE) UCL	452.1
97.5% Chebyshev (MVUE) UCL	551.2
99% Chebyshev (MVUE) UCL	745.9

Gamma Distribution Test

k star (bias corrected)	1.45
Theta Star	132.9
MLE of Mean	192.7
MLE of Standard Deviation	160
nu star	69.59
Approximate Chi Square Value (.05)	51.39
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	50.29
Anderson-Darling Test Statistic	0.485
Anderson-Darling 5% Critical Value	0.76
Kolmogorov-Smirnov Test Statistic	0.164
Kolmogorov-Smirnov 5% Critical Value	0.181

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	240.9
95% Jackknife UCL	242.9
95% Standard Bootstrap UCL	240.1
95% Bootstrap-t UCL	255.5
95% Hall's Bootstrap UCL	249.9
95% Percentile Bootstrap UCL	240
95% BCA Bootstrap UCL	246.1
95% Chebyshev(Mean, Sd) UCL	320.6
97.5% Chebyshev(Mean, Sd) UCL	375.9
99% Chebyshev(Mean, Sd) UCL	484.6

Assuming Gamma Distribution

95% Approximate Gamma UCL	260.9
95% Adjusted Gamma UCL	266.6

Potential UCL to Use

Use 95% Approximate Gamma UCL 260.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Iron - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 22

Raw Statistics

Minimum	11000
Maximum	144000
Mean	64954
Median	62000
SD	32144
Coefficient of Variation	0.495
Skewness	0.802

Log-transformed Statistics

Minimum of Log Data	9.306
Maximum of Log Data	11.88
Mean of log Data	10.95
SD of log Data	0.576

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.94
Shapiro Wilk Critical Value	0.916

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 76199

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	76895
95% Modified-t UCL (Johnson-1978)	76378

Gamma Distribution Test

k star (bias corrected)	3.387
Theta Star	19178
MLE of Mean	64954
MLE of Standard Deviation	35294
nu star	162.6
Approximate Chi Square Value (.05)	134.1
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	132.3
Anderson-Darling Test Statistic	0.376
Anderson-Darling 5% Critical Value	0.749
Kolmogorov-Smirnov Test Statistic	0.135
Kolmogorov-Smirnov 5% Critical Value	0.179

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	78750
95% Adjusted Gamma UCL	79832

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.931
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	85644
95% Chebyshev (MVUE) UCL	102250
97.5% Chebyshev (MVUE) UCL	117755
99% Chebyshev (MVUE) UCL	148212

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	75746
95% Jackknife UCL	76199
95% Standard Bootstrap UCL	75491
95% Bootstrap-t UCL	77553
95% Hall's Bootstrap UCL	78530
95% Percentile Bootstrap UCL	76175
95% BCA Bootstrap UCL	76608
95% Chebyshev(Mean, Sd) UCL	93554
97.5% Chebyshev(Mean, Sd) UCL	105929
99% Chebyshev(Mean, Sd) UCL	130238

Potential UCL to Use

Use 95% Student's-t UCL 76199

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Lead - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 22

Raw Statistics

Minimum	18
Maximum	20400
Mean	2635
Median	1250
SD	4148
Coefficient of Variation	1.574
Skewness	3.698

Log-transformed Statistics

Minimum of Log Data	2.89
Maximum of Log Data	9.923
Mean of log Data	7.021
SD of log Data	1.553

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.558
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.934
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	4086

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	4711
95% Modified-t UCL (Johnson-1978)	4193

Assuming Lognormal Distribution

95% H-UCL	11080
95% Chebyshev (MVUE) UCL	9167
97.5% Chebyshev (MVUE) UCL	11668
99% Chebyshev (MVUE) UCL	16580

Gamma Distribution Test

k star (bias corrected)	0.645
Theta Star	4086
MLE of Mean	2635
MLE of Standard Deviation	3281
nu star	30.95
Approximate Chi Square Value (.05)	19.24
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	18.6
Anderson-Darling Test Statistic	0.461
Anderson-Darling 5% Critical Value	0.787
Kolmogorov-Smirnov Test Statistic	0.14
Kolmogorov-Smirnov 5% Critical Value	0.186

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	4238
95% Adjusted Gamma UCL	4386

Nonparametric Statistics

95% CLT UCL	4028
95% Jackknife UCL	4086
95% Standard Bootstrap UCL	4000
95% Bootstrap-t UCL	5925
95% Hall's Bootstrap UCL	9502
95% Percentile Bootstrap UCL	4154
95% BCA Bootstrap UCL	4873
95% Chebyshev(Mean, Sd) UCL	6326
97.5% Chebyshev(Mean, Sd) UCL	7923
99% Chebyshev(Mean, Sd) UCL	11060

Potential UCL to Use

Use 95% Approximate Gamma UCL 4238

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Magnesium - Area 4

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 14

Raw Statistics

Minimum	420
Maximum	6600
Mean	3596
Median	3500
SD	2250
Coefficient of Variation	0.626
Skewness	-0.0251

Log-transformed Statistics

Minimum of Log Data	6.04
Maximum of Log Data	8.795
Mean of log Data	7.866
SD of log Data	0.988

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.908
Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.812
Shapiro Wilk Critical Value	0.874

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 4661

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	4581
95% Modified-t UCL (Johnson-1978)	4661

Assuming Lognormal Distribution

95% H-UCL	9080
95% Chebyshev (MVUE) UCL	9104
97.5% Chebyshev (MVUE) UCL	11291
99% Chebyshev (MVUE) UCL	15588

Gamma Distribution Test

k star (bias corrected)	1.384
Theta Star	2599
MLE of Mean	3596
MLE of Standard Deviation	3058
nu star	38.74
Approximate Chi Square Value (.05)	25.48
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	24.06
Anderson-Darling Test Statistic	0.763
Anderson-Darling 5% Critical Value	0.749
Kolmogorov-Smirnov Test Statistic	0.194
Kolmogorov-Smirnov 5% Critical Value	0.232

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	5467
95% Adjusted Gamma UCL	5790

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	4586
95% Jackknife UCL	4661
95% Standard Bootstrap UCL	4556
95% Bootstrap-t UCL	4685
95% Hall's Bootstrap UCL	4574
95% Percentile Bootstrap UCL	4546
95% BCA Bootstrap UCL	4527
95% Chebyshev(Mean, Sd) UCL	6218
97.5% Chebyshev(Mean, Sd) UCL	7352
99% Chebyshev(Mean, Sd) UCL	9579

Potential UCL to Use

Use 95% Student's-t UCL 4661

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Manganese - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 22

Raw Statistics

Minimum	113
Maximum	10000
Mean	2738
Median	2000
SD	2602
Coefficient of Variation	0.95
Skewness	0.97

Log-transformed Statistics

Minimum of Log Data	4.727
Maximum of Log Data	9.21
Mean of log Data	7.228
SD of log Data	1.392

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.869
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	3649

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	3724
95% Modified-t UCL (Johnson-1978)	3666

Gamma Distribution Test

k star (bias corrected)	0.777
Theta Star	3523
MLE of Mean	2738
MLE of Standard Deviation	3106
nu star	37.3
Approximate Chi Square Value (.05)	24.32
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	23.58
Anderson-Darling Test Statistic	0.789
Anderson-Darling 5% Critical Value	0.778
Kolmogorov-Smirnov Test Statistic	0.152
Kolmogorov-Smirnov 5% Critical Value	0.184

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	4200
95% Adjusted Gamma UCL	4331

Potential UCL to Use

Use 95% Approximate Gamma UCL 4200

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.901
Shapiro Wilk Critical Value	0.916

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	8935
95% Chebyshev (MVUE) UCL	8429
97.5% Chebyshev (MVUE) UCL	10615
99% Chebyshev (MVUE) UCL	14910

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	3612
95% Jackknife UCL	3649
95% Standard Bootstrap UCL	3602
95% Bootstrap-t UCL	3766
95% Hall's Bootstrap UCL	3845
95% Percentile Bootstrap UCL	3581
95% BCA Bootstrap UCL	3688
95% Chebyshev(Mean, Sd) UCL	5054
97.5% Chebyshev(Mean, Sd) UCL	6056
99% Chebyshev(Mean, Sd) UCL	8024

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Mercury - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 22

Raw Statistics

Minimum	0.028
Maximum	4.9
Mean	0.93
Median	0.535
SD	1.175
Coefficient of Variation	1.264
Skewness	2.326

Log-transformed Statistics

Minimum of Log Data	-3.576
Maximum of Log Data	1.589
Mean of log Data	-0.811
SD of log Data	1.392

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.713
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	1.341

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1.446
95% Modified-t UCL (Johnson-1978)	1.36

Gamma Distribution Test

k star (bias corrected)	0.731
Theta Star	1.272
MLE of Mean	0.93
MLE of Standard Deviation	1.088
nu star	35.07
Approximate Chi Square Value (.05)	22.52
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	21.81
Anderson-Darling Test Statistic	0.235
Anderson-Darling 5% Critical Value	0.78
Kolmogorov-Smirnov Test Statistic	0.105
Kolmogorov-Smirnov 5% Critical Value	0.185

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	1.448
95% Adjusted Gamma UCL	1.495

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.959
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	2.886
95% Chebyshev (MVUE) UCL	2.721
97.5% Chebyshev (MVUE) UCL	3.427
99% Chebyshev (MVUE) UCL	4.814

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	1.324
95% Jackknife UCL	1.341
95% Standard Bootstrap UCL	1.313
95% Bootstrap-t UCL	1.698
95% Hall's Bootstrap UCL	3.156
95% Percentile Bootstrap UCL	1.349
95% BCA Bootstrap UCL	1.481
95% Chebyshev(Mean, Sd) UCL	1.975
97.5% Chebyshev(Mean, Sd) UCL	2.427
99% Chebyshev(Mean, Sd) UCL	3.316

Potential UCL to Use

Use 95% Approximate Gamma UCL 1.448

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Nickel - Area 4

General Statistics

Number of Valid Data	24	Number of Detected Data	23
Number of Distinct Detected Data	22	Number of Non-Detect Data	1
		Percent Non-Detects	4.17%

Raw Statistics

Minimum Detected	1.3
Maximum Detected	45.4
Mean of Detected	15.08
SD of Detected	11.05
Minimum Non-Detect	107
Maximum Non-Detect	107

Log-transformed Statistics

Minimum Detected	0.262
Maximum Detected	3.816
Mean of Detected	2.367
SD of Detected	0.969
Minimum Non-Detect	4.673
Maximum Non-Detect	4.673

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.893
5% Shapiro Wilk Critical Value	0.914

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	16.68
SD	13.35
95% DL/2 (t) UCL	21.35
Maximum Likelihood Estimate(MLE) Method	N/A

MLE method failed to converge properly

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.897
5% Shapiro Wilk Critical Value	0.914

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	2.434
SD	1.004
95% H-Stat (DL/2) UCL	32.16
Log ROS Method	
Mean in Log Scale	2.367
SD in Log Scale	0.948
Mean in Original Scale	14.89
SD in Original Scale	10.84
95% t UCL	18.69
95% Percentile Bootstrap UCL	18.63
95% BCA Bootstrap UCL	19.11

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.412
Theta Star	10.68
nu star	64.94
A-D Test Statistic	0.725
5% A-D Critical Value	0.759
K-S Test Statistic	0.759
5% K-S Critical Value	0.185

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	1.3
Maximum	45.4
Mean	15.11
Median	15.43
SD	10.8
k star	1.475
Theta star	10.25
Nu star	70.79
AppChi2	52.42
95% Gamma Approximate UCL	20.41
95% Adjusted Gamma UCL	20.85

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	15.08
SD	10.8
SE of Mean	2.303
95% KM (t) UCL	19.03
95% KM (z) UCL	18.87
95% KM (jackknife) UCL	19.03
95% KM (bootstrap t) UCL	19.93
95% KM (BCA) UCL	18.9
95% KM (Percentile Bootstrap) UCL	18.86
95% KM (Chebyshev) UCL	25.12
97.5% KM (Chebyshev) UCL	29.46
99% KM (Chebyshev) UCL	38

Potential UCLs to Use

95% KM (Chebyshev) UCL	25.12

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

pH - Area 4

General Statistics

Number of Valid Observations 34

Number of Distinct Observations 27

Raw Statistics

Minimum	3.4
Maximum	7.3
Mean	5.17
Median	5.395
SD	0.785
Coefficient of Variation	0.152
Skewness	-0.197

Log-transformed Statistics

Minimum of Log Data	1.224
Maximum of Log Data	1.988
Mean of log Data	1.631
SD of log Data	0.16

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.928
Shapiro Wilk Critical Value	0.933

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.903
Shapiro Wilk Critical Value	0.933

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 5.398

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	5.387
95% Modified-t UCL (Johnson-1978)	5.397

Assuming Lognormal Distribution

95% H-UCL	5.43
95% Chebyshev (MVUE) UCL	5.795
97.5% Chebyshev (MVUE) UCL	6.064
99% Chebyshev (MVUE) UCL	6.592

Gamma Distribution Test

k star (bias corrected)	38.39
Theta Star	0.135
MLE of Mean	5.17
MLE of Standard Deviation	0.834
nu star	2611
Approximate Chi Square Value (.05)	2493
Adjusted Level of Significance	0.0422
Adjusted Chi Square Value	2487
Anderson-Darling Test Statistic	1.288
Anderson-Darling 5% Critical Value	0.745
Kolmogorov-Smirnov Test Statistic	0.182
Kolmogorov-Smirnov 5% Critical Value	0.151

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	5.414
95% Adjusted Gamma UCL	5.427

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL	5.392
95% Jackknife UCL	5.398
95% Standard Bootstrap UCL	5.39
95% Bootstrap-t UCL	5.398
95% Hall's Bootstrap UCL	5.414
95% Percentile Bootstrap UCL	5.376
95% BCA Bootstrap UCL	5.388
95% Chebyshev(Mean, Sd) UCL	5.757
97.5% Chebyshev(Mean, Sd) UCL	6.011
99% Chebyshev(Mean, Sd) UCL	6.51

Potential UCL to Use

Use 95% Student's-t UCL 5.398

or 95% Modified-t UCL 5.397

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Potassium - Area 4

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 13

Raw Statistics

Minimum	88
Maximum	2100
Mean	1001
Median	925
SD	536.1
Coefficient of Variation	0.535
Skewness	0.448

Log-transformed Statistics

Minimum of Log Data	4.477
Maximum of Log Data	7.65
Mean of log Data	6.708
SD of log Data	0.785

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.974
Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.839
Shapiro Wilk Critical Value	0.874

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 1255

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1255
95% Modified-t UCL (Johnson-1978)	1258

Assuming Lognormal Distribution

95% H-UCL	1903
95% Chebyshev (MVUE) UCL	2136
97.5% Chebyshev (MVUE) UCL	2592
99% Chebyshev (MVUE) UCL	3486

Gamma Distribution Test

k star (bias corrected)	2.119
Theta Star	472.6
MLE of Mean	1001
MLE of Standard Deviation	687.9
nu star	59.33
Approximate Chi Square Value (.05)	42.62
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	40.74
Anderson-Darling Test Statistic	0.393
Anderson-Darling 5% Critical Value	0.744
Kolmogorov-Smirnov Test Statistic	0.202
Kolmogorov-Smirnov 5% Critical Value	0.231

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	1394
95% Adjusted Gamma UCL	1458

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	1237
95% Jackknife UCL	1255
95% Standard Bootstrap UCL	1231
95% Bootstrap-t UCL	1274
95% Hall's Bootstrap UCL	1299
95% Percentile Bootstrap UCL	1224
95% BCA Bootstrap UCL	1258
95% Chebyshev(Mean, Sd) UCL	1626
97.5% Chebyshev(Mean, Sd) UCL	1896
99% Chebyshev(Mean, Sd) UCL	2427

Potential UCL to Use

Use 95% Student's-t UCL 1255

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Selenium - Area 4

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 12

Raw Statistics

Minimum	0.29
Maximum	2.3
Mean	1.176
Median	1.15
SD	0.559
Coefficient of Variation	0.476
Skewness	0.142

Log-transformed Statistics

Minimum of Log Data	-1.238
Maximum of Log Data	0.833
Mean of log Data	0.0217
SD of log Data	0.607

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.975
Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.891
Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	1.441

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1.428
95% Modified-t UCL (Johnson-1978)	1.442

Assuming Lognormal Distribution

95% H-UCL	1.783
95% Chebyshev (MVUE) UCL	2.099
97.5% Chebyshev (MVUE) UCL	2.483
99% Chebyshev (MVUE) UCL	3.239

Gamma Distribution Test

k star (bias corrected)	2.962
Theta Star	0.397
MLE of Mean	1.176
MLE of Standard Deviation	0.684
nu star	82.93
Approximate Chi Square Value (.05)	62.95
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	60.64
Anderson-Darling Test Statistic	0.426
Anderson-Darling 5% Critical Value	0.741
Kolmogorov-Smirnov Test Statistic	0.162
Kolmogorov-Smirnov 5% Critical Value	0.23

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	1.55
95% Adjusted Gamma UCL	1.609

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	1.422
95% Jackknife UCL	1.441
95% Standard Bootstrap UCL	1.415
95% Bootstrap-t UCL	1.456
95% Hall's Bootstrap UCL	1.456
95% Percentile Bootstrap UCL	1.412
95% BCA Bootstrap UCL	1.405
95% Chebyshev(Mean, Sd) UCL	1.828
97.5% Chebyshev(Mean, Sd) UCL	2.11
99% Chebyshev(Mean, Sd) UCL	2.664

Potential UCL to Use

Use 95% Student's-t UCL 1.441

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Silver - Area 4

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 14

Raw Statistics

Minimum	0.52
Maximum	29
Mean	10.54
Median	8.7
SD	7.142
Coefficient of Variation	0.678
Skewness	1.445

Log-transformed Statistics

Minimum of Log Data	-0.654
Maximum of Log Data	3.367
Mean of log Data	2.083
SD of log Data	0.927

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.88
Shapiro Wilk Critical Value	0.874

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.813
Shapiro Wilk Critical Value	0.874

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	13.92

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	14.46
95% Modified-t UCL (Johnson-1978)	14.04

Assuming Lognormal Distribution

95% H-UCL	24.55
95% Chebyshev (MVUE) UCL	25.64
97.5% Chebyshev (MVUE) UCL	31.61
99% Chebyshev (MVUE) UCL	43.33

Gamma Distribution Test

k star (bias corrected)	1.611
Theta Star	6.542
MLE of Mean	10.54
MLE of Standard Deviation	8.303
nu star	45.1
Approximate Chi Square Value (.05)	30.69
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	29.12
Anderson-Darling Test Statistic	0.469
Anderson-Darling 5% Critical Value	0.746
Kolmogorov-Smirnov Test Statistic	0.182
Kolmogorov-Smirnov 5% Critical Value	0.232

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	15.48
95% Adjusted Gamma UCL	16.32

Nonparametric Statistics

95% CLT UCL	13.68
95% Jackknife UCL	13.92
95% Standard Bootstrap UCL	13.57
95% Bootstrap-t UCL	15.28
95% Hall's Bootstrap UCL	18.52
95% Percentile Bootstrap UCL	13.76
95% BCA Bootstrap UCL	14.55
95% Chebyshev(Mean, Sd) UCL	18.86
97.5% Chebyshev(Mean, Sd) UCL	22.46
99% Chebyshev(Mean, Sd) UCL	29.53

Potential UCL to Use

Use 95% Student's-t UCL 13.92

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Sodium - Area 4

General Statistics

Number of Valid Data	14	Number of Detected Data	12
Number of Distinct Detected Data	11	Number of Non-Detect Data	2
		Percent Non-Detects	14.29%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	42	Minimum Detected	3.738
Maximum Detected	240	Maximum Detected	5.481
Mean of Detected	84.08	Mean of Detected	4.294
SD of Detected	55.42	SD of Detected	0.507
Minimum Non-Detect	38	Minimum Non-Detect	3.638
Maximum Non-Detect	42	Maximum Non-Detect	3.738

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Number treated as Non-Detect	2
Number treated as Detected	12
Single DL Non-Detect Percentage	14.29%

UCL Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.726
5% Shapiro Wilk Critical Value	0.859

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.906
5% Shapiro Wilk Critical Value	0.859

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	74.93
SD	56.04
95% DL/2 (t) UCL	101.5
Maximum Likelihood Estimate(MLE) Method	
Mean	72.91
SD	57.33
95% MLE (t) UCL	100
95% MLE (Tiku) UCL	99.1

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean	4.108
SD	0.664
95% H-Stat (DL/2) UCL	115.7
Log ROS Method	
Mean in Log Scale	4.126
SD in Log Scale	0.632
Mean in Original Scale	75.3
SD in Original Scale	55.66
95% t UCL	101.6
95% Percentile Bootstrap UCL	100.7
95% BCA Bootstrap UCL	111.6

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	2.898
Theta Star	29.02
nu star	69.54
A-D Test Statistic	0.629
5% A-D Critical Value	0.736
K-S Test Statistic	0.736
5% K-S Critical Value	0.247

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics using Extrapolated Data	
Minimum	16.27
Maximum	240
Mean	74.4
Median	58.5
SD	56.62
k star	1.874
Theta star	39.7
Nu star	52.47
AppChi2	36.83
95% Gamma Approximate UCL	106
95% Adjusted Gamma UCL	111.2

Note: DL/2 is not a recommended method.

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method	
Mean	78.07
SD	51.29
SE of Mean	14.32
95% KM (t) UCL	103.4
95% KM (z) UCL	101.6
95% KM (jackknife) UCL	103.3
95% KM (bootstrap t) UCL	135.3
95% KM (BCA) UCL	107.4
95% KM (Percentile Bootstrap) UCL	102.1
95% KM (Chebyshev) UCL	140.5
97.5% KM (Chebyshev) UCL	167.5
99% KM (Chebyshev) UCL	220.5

Potential UCLs to Use

95% KM (BCA) UCL	107.4

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Thallium - Area 4

General Statistics

Number of Valid Data	14	Number of Detected Data	13
Number of Distinct Detected Data	10	Number of Non-Detect Data	1
		Percent Non-Detects	7.14%

Raw Statistics		Log-transformed Statistics	
Minimum Detected	0.17	Minimum Detected	-1.772
Maximum Detected	0.93	Maximum Detected	-0.0726
Mean of Detected	0.372	Mean of Detected	-1.089
SD of Detected	0.197	SD of Detected	0.443
Minimum Non-Detect	0.11	Minimum Non-Detect	-2.207
Maximum Non-Detect	0.11	Maximum Non-Detect	-2.207

UCL Statistics

Normal Distribution Test with Detected Values Only		Lognormal Distribution Test with Detected Values Only	
Shapiro Wilk Test Statistic	0.784	Shapiro Wilk Test Statistic	0.944
5% Shapiro Wilk Critical Value	0.866	5% Shapiro Wilk Critical Value	0.866
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
DL/2 Substitution Method		DL/2 Substitution Method	
Mean	0.349	Mean	-1.219
SD	0.207	SD	0.644
95% DL/2 (t) UCL	0.447	95% H-Stat (DL/2) UCL	0.546
Maximum Likelihood Estimate(MLE) Method		Log ROS Method	
Mean	0.346	Mean in Log Scale	-1.165
SD	0.206	SD in Log Scale	0.511
95% MLE (t) UCL	0.443	Mean in Original Scale	0.353
95% MLE (Tiku) UCL	0.442	SD in Original Scale	0.201
		95% t UCL	0.448
		95% Percentile Bootstrap UCL	0.453
		95% BCA Bootstrap UCL	0.466

Gamma Distribution Test with Detected Values Only		Data Distribution Test with Detected Values Only	
k star (bias corrected)	4.047	Data Follow Appr. Gamma Distribution at 5% Significance Level	
Theta Star	0.0918		
nu star	105.2		
A-D Test Statistic	0.517	Nonparametric Statistics	
5% A-D Critical Value	0.736	Kaplan-Meier (KM) Method	
K-S Test Statistic	0.736	Mean	0.357
5% K-S Critical Value	0.237	SD	0.189
Data follow Appr. Gamma Distribution at 5% Significance Level		SE of Mean	0.0527
		95% KM (t) UCL	0.45
Assuming Gamma Distribution		95% KM (z) UCL	0.444
Gamma ROS Statistics using Extrapolated Data		95% KM (jackknife) UCL	0.45
Minimum	0.0445	95% KM (bootstrap t) UCL	0.522
Maximum	0.93	95% KM (BCA) UCL	0.458
Mean	0.348	95% KM (Percentile Bootstrap) UCL	0.449
Median	0.325	95% KM (Chebyshev) UCL	0.587
SD	0.208	97.5% KM (Chebyshev) UCL	0.686
k star	2.366	99% KM (Chebyshev) UCL	0.882
Theta star	0.147		
Nu star	66.24	Potential UCLs to Use	
AppChi2	48.51	95% KM (BCA) UCL	0.458
95% Gamma Approximate UCL	0.475		
95% Adjusted Gamma UCL	0.496		

Note: DL/2 is not a recommended method.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Maichle, and Lee (2006).
For additional insight, the user may want to consult a statistician.

Vanadium - Area 4

General Statistics

Number of Valid Observations 14

Number of Distinct Observations 12

Raw Statistics

Minimum	12
Maximum	99
Mean	40.79
Median	33
SD	23.83
Coefficient of Variation	0.584
Skewness	1.465

Log-transformed Statistics

Minimum of Log Data	2.485
Maximum of Log Data	4.595
Mean of log Data	3.563
SD of log Data	0.565

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.826
Shapiro Wilk Critical Value	0.874

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.916
Shapiro Wilk Critical Value	0.874

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	52.06

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	53.93
95% Modified-t UCL (Johnson-1978)	52.48

Assuming Lognormal Distribution

95% H-UCL	57.63
95% Chebyshev (MVUE) UCL	68.66
97.5% Chebyshev (MVUE) UCL	80.69
99% Chebyshev (MVUE) UCL	104.3

Gamma Distribution Test

k star (bias corrected)	2.88
Theta Star	14.16
MLE of Mean	40.79
MLE of Standard Deviation	24.04
nu star	80.63
Approximate Chi Square Value (.05)	60.94
Adjusted Level of Significance	0.0312
Adjusted Chi Square Value	58.67
Anderson-Darling Test Statistic	0.694
Anderson-Darling 5% Critical Value	0.741
Kolmogorov-Smirnov Test Statistic	0.205
Kolmogorov-Smirnov 5% Critical Value	0.23

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	53.96
95% Adjusted Gamma UCL	56.05

Nonparametric Statistics

95% CLT UCL	51.26
95% Jackknife UCL	52.06
95% Standard Bootstrap UCL	50.73
95% Bootstrap-t UCL	60.89
95% Hall's Bootstrap UCL	119.7
95% Percentile Bootstrap UCL	51.43
95% BCA Bootstrap UCL	53.57
95% Chebyshev(Mean, Sd) UCL	68.55
97.5% Chebyshev(Mean, Sd) UCL	80.56
99% Chebyshev(Mean, Sd) UCL	104.2

Potential UCL to Use

Use 95% Approximate Gamma UCL 53.96

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Zinc - Area 4

General Statistics

Number of Valid Observations 24

Number of Distinct Observations 22

Raw Statistics

Minimum	22
Maximum	8000
Mean	1408
Median	812.5
SD	1754
Coefficient of Variation	1.246
Skewness	2.718

Log-transformed Statistics

Minimum of Log Data	3.091
Maximum of Log Data	8.987
Mean of log Data	6.597
SD of log Data	1.308

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.691
Shapiro Wilk Critical Value	0.916

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.966
Shapiro Wilk Critical Value	0.916

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	2022

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	2209
95% Modified-t UCL (Johnson-1978)	2055

Assuming Lognormal Distribution

95% H-UCL	3891
95% Chebyshev (MVUE) UCL	3881
97.5% Chebyshev (MVUE) UCL	4858
99% Chebyshev (MVUE) UCL	6777

Gamma Distribution Test

k star (bias corrected)	0.812
Theta Star	1734
MLE of Mean	1408
MLE of Standard Deviation	1563
nu star	38.97
Approximate Chi Square Value (.05)	25.67
Adjusted Level of Significance	0.0392
Adjusted Chi Square Value	24.91
Anderson-Darling Test Statistic	0.233
Anderson-Darling 5% Critical Value	0.776
Kolmogorov-Smirnov Test Statistic	0.0889
Kolmogorov-Smirnov 5% Critical Value	0.184

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	1997
95% Jackknife UCL	2022
95% Standard Bootstrap UCL	1988
95% Bootstrap-t UCL	2537
95% Hall's Bootstrap UCL	4995
95% Percentile Bootstrap UCL	2077
95% BCA Bootstrap UCL	2246
95% Chebyshev(Mean, Sd) UCL	2969
97.5% Chebyshev(Mean, Sd) UCL	3644
99% Chebyshev(Mean, Sd) UCL	4971

Assuming Gamma Distribution

95% Approximate Gamma UCL	2138
95% Adjusted Gamma UCL	2203

Potential UCL to Use

Use 95% Approximate Gamma UCL 2138

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

General UCL Statistics for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Downloads\Area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Aluminum - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 7

Raw Statistics

Minimum	13000
Maximum	32600
Mean	27175
Median	30000
SD	6875
Coefficient of Variation	0.253
Skewness	-1.457

Log-transformed Statistics

Minimum of Log Data	9.473
Maximum of Log Data	10.39
Mean of log Data	10.17
SD of log Data	0.315

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.811
Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	31780

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	29835
95% Modified-t UCL (Johnson-1978)	31571

Gamma Distribution Test

k star (bias corrected)	8.546
Theta Star	3180
MLE of Mean	27175
MLE of Standard Deviation	9296
nu star	136.7
Approximate Chi Square Value (.05)	110.7
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	104.8
Anderson-Darling Test Statistic	0.821
Anderson-Darling 5% Critical Value	0.715
Kolmogorov-Smirnov Test Statistic	0.26
Kolmogorov-Smirnov 5% Critical Value	0.294

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	33561
95% Adjusted Gamma UCL	35457

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.749
Shapiro Wilk Critical Value	0.818

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	35236
95% Chebyshev (MVUE) UCL	40673
97.5% Chebyshev (MVUE) UCL	46444
99% Chebyshev (MVUE) UCL	57780

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	31173
95% Jackknife UCL	31780
95% Standard Bootstrap UCL	30902
95% Bootstrap-t UCL	30574
95% Hall's Bootstrap UCL	30048
95% Percentile Bootstrap UCL	30438
95% BCA Bootstrap UCL	30075
95% Chebyshev(Mean, Sd) UCL	37769
97.5% Chebyshev(Mean, Sd) UCL	42354
99% Chebyshev(Mean, Sd) UCL	51358

Potential UCL to Use

Use 95% Approximate Gamma UCL 33561

Recommended UCL exceeds the maximum observation

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Antimony - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 8

Raw Statistics

Minimum	0.3
Maximum	9.3
Mean	3.073
Median	0.45
SD	3.817
Coefficient of Variation	1.242
Skewness	0.836

Log-transformed Statistics

Minimum of Log Data	-1.204
Maximum of Log Data	2.23
Mean of log Data	0.129
SD of log Data	1.571

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.734
Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	5.629

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	5.719
95% Modified-t UCL (Johnson-1978)	5.696

Gamma Distribution Test

k star (bias corrected)	0.47
Theta Star	6.536
MLE of Mean	3.073
MLE of Standard Deviation	4.481
nu star	7.522
Approximate Chi Square Value (.05)	2.461
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	1.793
Anderson-Darling Test Statistic	1.115
Anderson-Darling 5% Critical Value	0.754
Kolmogorov-Smirnov Test Statistic	0.354
Kolmogorov-Smirnov 5% Critical Value	0.307

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	9.39
95% Adjusted Gamma UCL	12.89

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.741
Shapiro Wilk Critical Value	0.818

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	73.11
95% Chebyshev (MVUE) UCL	10.33
97.5% Chebyshev (MVUE) UCL	13.5
99% Chebyshev (MVUE) UCL	19.72

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL	5.292
95% Jackknife UCL	5.629
95% Standard Bootstrap UCL	5.152
95% Bootstrap-t UCL	6.694
95% Hall's Bootstrap UCL	4.393
95% Percentile Bootstrap UCL	5.285
95% BCA Bootstrap UCL	5.369
95% Chebyshev(Mean, Sd) UCL	8.955
97.5% Chebyshev(Mean, Sd) UCL	11.5
99% Chebyshev(Mean, Sd) UCL	16.5

Potential UCL to Use

Use 95% Hall's Bootstrap UCL 4.393

In Case Bootstrap t and/or Hall's Bootstrap yields an unreasonably large UCL value, use 97.5% or 99% Chebyshev (Mean, Sd) UCL

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Arsenic - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 8

Raw Statistics

Minimum	8.8
Maximum	347
Mean	110.2
Median	24
SD	135
Coefficient of Variation	1.225
Skewness	0.945

Log-transformed Statistics

Minimum of Log Data	2.175
Maximum of Log Data	5.849
Mean of log Data	3.765
SD of log Data	1.542

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.76
Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.822
Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	200.6

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	205.8
95% Modified-t UCL (Johnson-1978)	203.3

Assuming Lognormal Distribution

95% H-UCL	2399
95% Chebyshev (MVUE) UCL	375.2
97.5% Chebyshev (MVUE) UCL	489.6
99% Chebyshev (MVUE) UCL	714.3

Gamma Distribution Test

k star (bias corrected)	0.491
Theta Star	224.7
MLE of Mean	110.2
MLE of Standard Deviation	157.4
nu star	7.848
Approximate Chi Square Value (.05)	2.648
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	1.947
Anderson-Darling Test Statistic	0.835
Anderson-Darling 5% Critical Value	0.752
Kolmogorov-Smirnov Test Statistic	0.279
Kolmogorov-Smirnov 5% Critical Value	0.306

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	326.8
95% Adjusted Gamma UCL	444.2

Data Distribution

Data Follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	188.7
95% Jackknife UCL	200.6
95% Standard Bootstrap UCL	183.7
95% Bootstrap-t UCL	234.4
95% Hall's Bootstrap UCL	162.7
95% Percentile Bootstrap UCL	180.5
95% BCA Bootstrap UCL	202.3
95% Chebyshev(Mean, Sd) UCL	318.3
97.5% Chebyshev(Mean, Sd) UCL	408.3
99% Chebyshev(Mean, Sd) UCL	585.1

Potential UCL to Use

Use 95% Approximate Gamma UCL 326.8

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Barium - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 8

Raw Statistics

Minimum	31
Maximum	120
Mean	70.2
Median	63.5
SD	31.54
Coefficient of Variation	0.449
Skewness	0.599

Log-transformed Statistics

Minimum of Log Data	3.434
Maximum of Log Data	4.787
Mean of log Data	4.161
SD of log Data	0.461

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.932
Shapiro Wilk Critical Value	0.818

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.97
Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 91.33

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	91.07
95% Modified-t UCL (Johnson-1978)	91.72

Assuming Lognormal Distribution

95% H-UCL	106.3
95% Chebyshev (MVUE) UCL	120.7
97.5% Chebyshev (MVUE) UCL	142.5
99% Chebyshev (MVUE) UCL	185.3

Gamma Distribution Test

k star (bias corrected)	3.631
Theta Star	19.33
MLE of Mean	70.2
MLE of Standard Deviation	36.84
nu star	58.1
Approximate Chi Square Value (.05)	41.58
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	38.07
Anderson-Darling Test Statistic	0.209
Anderson-Darling 5% Critical Value	0.719
Kolmogorov-Smirnov Test Statistic	0.152
Kolmogorov-Smirnov 5% Critical Value	0.295

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	88.54
95% Jackknife UCL	91.33
95% Standard Bootstrap UCL	87.33
95% Bootstrap-t UCL	101
95% Hall's Bootstrap UCL	104.7
95% Percentile Bootstrap UCL	88
95% BCA Bootstrap UCL	89.23
95% Chebyshev(Mean, Sd) UCL	118.8
97.5% Chebyshev(Mean, Sd) UCL	139.8
99% Chebyshev(Mean, Sd) UCL	181.2

Assuming Gamma Distribution

95% Approximate Gamma UCL	98.1
95% Adjusted Gamma UCL	107.1

Potential UCL to Use

Use 95% Student's-t UCL 91.33

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Beryllium - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 5

Raw Statistics

Minimum	0.38
Maximum	0.93
Mean	0.574
Median	0.54
SD	0.214
Coefficient of Variation	0.373
Skewness	1.5

Log-transformed Statistics

Minimum of Log Data	-0.968
Maximum of Log Data	-0.0726
Mean of log Data	-0.604
SD of log Data	0.341

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!
If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 5 Values in this data
Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.869
Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 0.778

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	0.8
95% Modified-t UCL (Johnson-1978)	0.789

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.94
Shapiro Wilk Critical Value	0.762

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	0.887
95% Chebyshev (MVUE) UCL	0.951
97.5% Chebyshev (MVUE) UCL	1.115
99% Chebyshev (MVUE) UCL	1.437

Gamma Distribution Test

k star (bias corrected)	4.257
Theta Star	0.135
MLE of Mean	0.574
MLE of Standard Deviation	0.278
nu star	42.57
Approximate Chi Square Value (.05)	28.61
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	23.73
Anderson-Darling Test Statistic	0.328
Anderson-Darling 5% Critical Value	0.679
Kolmogorov-Smirnov Test Statistic	0.245
Kolmogorov-Smirnov 5% Critical Value	0.358

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	0.854
95% Adjusted Gamma UCL	1.03

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	0.732
95% Jackknife UCL	0.778
95% Standard Bootstrap UCL	0.715
95% Bootstrap-t UCL	0.925
95% Hall's Bootstrap UCL	1.433
95% Percentile Bootstrap UCL	0.722
95% BCA Bootstrap UCL	0.762
95% Chebyshev(Mean, Sd) UCL	0.992
97.5% Chebyshev(Mean, Sd) UCL	1.172
99% Chebyshev(Mean, Sd) UCL	1.527

Potential UCL to Use

Use 95% Student's-t UCL 0.778

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Cadmium - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 8

Raw Statistics

Minimum	0.2
Maximum	1
Mean	0.384
Median	0.255
SD	0.277
Coefficient of Variation	0.723
Skewness	1.964

Log-transformed Statistics

Minimum of Log Data	-1.609
Maximum of Log Data	0
Mean of log Data	-1.125
SD of log Data	0.572

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.72
Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.83
Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	0.57

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	0.618
95% Modified-t UCL (Johnson-1978)	0.581

Assuming Lognormal Distribution

95% H-UCL	0.653
95% Chebyshev (MVUE) UCL	0.707
97.5% Chebyshev (MVUE) UCL	0.851
99% Chebyshev (MVUE) UCL	1.134

Gamma Distribution Test

k star (bias corrected)	2.048
Theta Star	0.187
MLE of Mean	0.384
MLE of Standard Deviation	0.268
nu star	32.77
Approximate Chi Square Value (.05)	20.68
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	18.29
Anderson-Darling Test Statistic	0.785
Anderson-Darling 5% Critical Value	0.721
Kolmogorov-Smirnov Test Statistic	0.3
Kolmogorov-Smirnov 5% Critical Value	0.296

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	0.608
95% Adjusted Gamma UCL	0.687

Data Distribution

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	0.545
95% Jackknife UCL	0.57
95% Standard Bootstrap UCL	0.536
95% Bootstrap-t UCL	1.108
95% Hall's Bootstrap UCL	1.217
95% Percentile Bootstrap UCL	0.548
95% BCA Bootstrap UCL	0.609
95% Chebyshev(Mean, Sd) UCL	0.811
97.5% Chebyshev(Mean, Sd) UCL	0.996
99% Chebyshev(Mean, Sd) UCL	1.36

Potential UCL to Use Use 95% H-UCL 0.653

ProUCL computes and outputs H-statistic based UCLs for historical reasons only.
H-statistic often results in unstable (both high and low) values of UCL95 as shown in examples in the Technical Guide.
It is therefore recommended to avoid the use of H-statistic based 95% UCLs.
Use of nonparametric methods are preferred to compute UCL95 for skewed data sets which do not follow a gamma distribution.

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Calcium - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 5

Raw Statistics

Minimum	1900
Maximum	2900
Mean	2400
Median	2400
SD	360.6
Coefficient of Variation	0.15
Skewness	0

Log-transformed Statistics

Minimum of Log Data	7.55
Maximum of Log Data	7.972
Mean of log Data	7.774
SD of log Data	0.153

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!
If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 5 Values in this data
Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.977
Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 2744

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	2665
95% Modified-t UCL (Johnson-1978)	2744

Gamma Distribution Test

k star (bias corrected)	21.89
Theta Star	109.7
MLE of Mean	2400
MLE of Standard Deviation	513
nu star	218.9
Approximate Chi Square Value (.05)	185.6
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	172.2
Anderson-Darling Test Statistic	0.237
Anderson-Darling 5% Critical Value	0.678
Kolmogorov-Smirnov Test Statistic	0.195
Kolmogorov-Smirnov 5% Critical Value	0.357

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	2830
95% Adjusted Gamma UCL	3051

Potential UCL to Use

Use 95% Student's-t UCL 2744

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.971
Shapiro Wilk Critical Value	0.762

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	2828
95% Chebyshev (MVUE) UCL	3115
97.5% Chebyshev (MVUE) UCL	3424
99% Chebyshev (MVUE) UCL	4031

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	2665
95% Jackknife UCL	2744
95% Standard Bootstrap UCL	2645
95% Bootstrap-t UCL	2706
95% Hall's Bootstrap UCL	N/A
95% Percentile Bootstrap UCL	2620
95% BCA Bootstrap UCL	2620
95% Chebyshev(Mean, Sd) UCL	3103
97.5% Chebyshev(Mean, Sd) UCL	3407
99% Chebyshev(Mean, Sd) UCL	4004

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Chromium - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 8

Raw Statistics

Minimum	29.4
Maximum	140
Mean	76.43
Median	76
SD	41.08
Coefficient of Variation	0.538
Skewness	0.57

Log-transformed Statistics

Minimum of Log Data	3.381
Maximum of Log Data	4.942
Mean of log Data	4.2
SD of log Data	0.571

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.898
Shapiro Wilk Critical Value	0.818

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.927
Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	103.9

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	103.4
95% Modified-t UCL (Johnson-1978)	104.4

Assuming Lognormal Distribution

95% H-UCL	134
95% Chebyshev (MVUE) UCL	145.1
97.5% Chebyshev (MVUE) UCL	174.6
99% Chebyshev (MVUE) UCL	232.7

Gamma Distribution Test

k star (bias corrected)	2.484
Theta Star	30.77
MLE of Mean	76.43
MLE of Standard Deviation	48.5
nu star	39.74
Approximate Chi Square Value (.05)	26.29
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	23.56
Anderson-Darling Test Statistic	0.348
Anderson-Darling 5% Critical Value	0.719
Kolmogorov-Smirnov Test Statistic	0.179
Kolmogorov-Smirnov 5% Critical Value	0.295

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	115.5
95% Adjusted Gamma UCL	128.9

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	100.3
95% Jackknife UCL	103.9
95% Standard Bootstrap UCL	98
95% Bootstrap-t UCL	111.4
95% Hall's Bootstrap UCL	120.2
95% Percentile Bootstrap UCL	100.2
95% BCA Bootstrap UCL	101.3
95% Chebyshev(Mean, Sd) UCL	139.7
97.5% Chebyshev(Mean, Sd) UCL	167.1
99% Chebyshev(Mean, Sd) UCL	221

Potential UCL to Use

Use 95% Student's-t UCL 103.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Cobalt - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 4

Raw Statistics

Minimum	18
Maximum	33
Mean	24.8
Median	21
SD	6.723
Coefficient of Variation	0.271
Skewness	0.501

Log-transformed Statistics

Minimum of Log Data	2.89
Maximum of Log Data	3.497
Mean of log Data	3.182
SD of log Data	0.267

Warning: There are only 4 Distinct Values in this data

There are insufficient Distinct Values to perform some GOF tests and bootstrap methods.

Those methods will return a 'N/A' value on your output display!

It is necessary to have 4 or more Distinct Values to compute bootstrap methods.

However, results obtained using 4 to 9 distinct values may not be reliable.

It is recommended to have 10-15 or more observations for accurate and meaningful bootstrap results.

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!

If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.848
Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 31.21

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	30.47
95% Modified-t UCL (Johnson-1978)	31.32

Gamma Distribution Test

k star (bias corrected)	7.129
Theta Star	3.479
MLE of Mean	24.8
MLE of Standard Deviation	9.288
nu star	71.29
Approximate Chi Square Value (.05)	52.85
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	45.98
Anderson-Darling Test Statistic	0.512
Anderson-Darling 5% Critical Value	0.679
Kolmogorov-Smirnov Test Statistic	0.324
Kolmogorov-Smirnov 5% Critical Value	0.357

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	33.45
95% Adjusted Gamma UCL	38.45

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.865
Shapiro Wilk Critical Value	0.762

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	34.08
95% Chebyshev (MVUE) UCL	37.66
97.5% Chebyshev (MVUE) UCL	43.23
99% Chebyshev (MVUE) UCL	54.17

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	29.75
95% Jackknife UCL	31.21
95% Standard Bootstrap UCL	29.2
95% Bootstrap-t UCL	45.26
95% Hall's Bootstrap UCL	112.9
95% Percentile Bootstrap UCL	29.6
95% BCA Bootstrap UCL	29.4
95% Chebyshev(Mean, Sd) UCL	37.91
97.5% Chebyshev(Mean, Sd) UCL	43.58
99% Chebyshev(Mean, Sd) UCL	54.72

Potential UCL to Use

Use 95% Student's-t UCL 31.21

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)

and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Copper - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 8

Raw Statistics

Minimum	65
Maximum	159
Mean	92.23
Median	85.9
SD	30.15
Coefficient of Variation	0.327
Skewness	1.85

Log-transformed Statistics

Minimum of Log Data	4.174
Maximum of Log Data	5.069
Mean of log Data	4.486
SD of log Data	0.284

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.8
Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.887
Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	112.4

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	117.2
95% Modified-t UCL (Johnson-1978)	113.6

Assuming Lognormal Distribution

95% H-UCL	115
95% Chebyshev (MVUE) UCL	132.3
97.5% Chebyshev (MVUE) UCL	149.7
99% Chebyshev (MVUE) UCL	184

Gamma Distribution Test

k star (bias corrected)	8.283
Theta Star	11.13
MLE of Mean	92.23
MLE of Standard Deviation	32.04
nu star	132.5
Approximate Chi Square Value (.05)	106.9
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	101.1
Anderson-Darling Test Statistic	0.547
Anderson-Darling 5% Critical Value	0.715
Kolmogorov-Smirnov Test Statistic	0.28
Kolmogorov-Smirnov 5% Critical Value	0.294

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	114.3
95% Adjusted Gamma UCL	120.9

Nonparametric Statistics

95% CLT UCL	109.8
95% Jackknife UCL	112.4
95% Standard Bootstrap UCL	108.5
95% Bootstrap-t UCL	137.6
95% Hall's Bootstrap UCL	203.5
95% Percentile Bootstrap UCL	108.8
95% BCA Bootstrap UCL	116.9
95% Chebyshev(Mean, Sd) UCL	138.7
97.5% Chebyshev(Mean, Sd) UCL	158.8
99% Chebyshev(Mean, Sd) UCL	198.3

Potential UCL to Use

Use 95% Approximate Gamma UCL 114.3

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Iron - Area 5

General Statistics

Number of Valid Observations 13

Number of Distinct Observations 12

Raw Statistics

Minimum	15000
Maximum	53000
Mean	37777
Median	38000
SD	12202
Coefficient of Variation	0.323
Skewness	-0.755

Log-transformed Statistics

Minimum of Log Data	9.616
Maximum of Log Data	10.88
Mean of log Data	10.47
SD of log Data	0.407

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.907
Shapiro Wilk Critical Value	0.866

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.815
Shapiro Wilk Critical Value	0.866

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 43809

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	42586
95% Modified-t UCL (Johnson-1978)	43690

Assuming Lognormal Distribution

95% H-UCL	48699
95% Chebyshev (MVUE) UCL	57324
97.5% Chebyshev (MVUE) UCL	65599
99% Chebyshev (MVUE) UCL	81854

Gamma Distribution Test

k star (bias corrected)	6.103
Theta Star	6189
MLE of Mean	37777
MLE of Standard Deviation	15291
nu star	158.7
Approximate Chi Square Value (.05)	130.6
Adjusted Level of Significance	0.0301
Adjusted Chi Square Value	126.9
Anderson-Darling Test Statistic	0.797
Anderson-Darling 5% Critical Value	0.735
Kolmogorov-Smirnov Test Statistic	0.233
Kolmogorov-Smirnov 5% Critical Value	0.237

Data follow Appr. Gamma Distribution at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	43343
95% Jackknife UCL	43809
95% Standard Bootstrap UCL	43079
95% Bootstrap-t UCL	43317
95% Hall's Bootstrap UCL	42693
95% Percentile Bootstrap UCL	42915
95% BCA Bootstrap UCL	42838
95% Chebyshev(Mean, Sd) UCL	52528
97.5% Chebyshev(Mean, Sd) UCL	58911
99% Chebyshev(Mean, Sd) UCL	71450

Assuming Gamma Distribution

95% Approximate Gamma UCL	45914
95% Adjusted Gamma UCL	47228

Potential UCL to Use

Use 95% Student's-t UCL 43809

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Lead - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 7

Raw Statistics

Minimum	9.8
Maximum	80.6
Mean	30.1
Median	13
SD	27.2
Coefficient of Variation	0.904
Skewness	1.095

Log-transformed Statistics

Minimum of Log Data	2.282
Maximum of Log Data	4.389
Mean of log Data	3.058
SD of log Data	0.869

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.766
Shapiro Wilk Critical Value	0.818

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	48.32

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	49.89
95% Modified-t UCL (Johnson-1978)	48.94

Gamma Distribution Test

k star (bias corrected)	1.076
Theta Star	27.98
MLE of Mean	30.1
MLE of Standard Deviation	29.02
nu star	17.21
Approximate Chi Square Value (.05)	8.823
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	7.356
Anderson-Darling Test Statistic	0.944
Anderson-Darling 5% Critical Value	0.728
Kolmogorov-Smirnov Test Statistic	0.343
Kolmogorov-Smirnov 5% Critical Value	0.299

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	58.71
95% Adjusted Gamma UCL	70.43

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.789
Shapiro Wilk Critical Value	0.818

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	86.32
95% Chebyshev (MVUE) UCL	69.31
97.5% Chebyshev (MVUE) UCL	86.63
99% Chebyshev (MVUE) UCL	120.6

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL	45.92
95% Jackknife UCL	48.32
95% Standard Bootstrap UCL	44.81
95% Bootstrap-t UCL	57.92
95% Hall's Bootstrap UCL	42.27
95% Percentile Bootstrap UCL	46.55
95% BCA Bootstrap UCL	48.03
95% Chebyshev(Mean, Sd) UCL	72.01
97.5% Chebyshev(Mean, Sd) UCL	90.15
99% Chebyshev(Mean, Sd) UCL	125.8

Potential UCL to Use

Use 95% Chebyshev (Mean, Sd) UCL 72.01

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Magnesium - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 5

Raw Statistics

Minimum	9600
Maximum	25000
Mean	17320
Median	16000
SD	6543
Coefficient of Variation	0.378
Skewness	0.139

Log-transformed Statistics

Minimum of Log Data	9.17
Maximum of Log Data	10.13
Mean of log Data	9.698
SD of log Data	0.398

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!
If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 5 Values in this data
Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.934
Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 23558

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	22327
95% Modified-t UCL (Johnson-1978)	23588

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.945
Shapiro Wilk Critical Value	0.762

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	29850
95% Chebyshev (MVUE) UCL	30727
97.5% Chebyshev (MVUE) UCL	36516
99% Chebyshev (MVUE) UCL	47889

Gamma Distribution Test

k star (bias corrected)	3.47
Theta Star	4991
MLE of Mean	17320
MLE of Standard Deviation	9297
nu star	34.7
Approximate Chi Square Value (.05)	22.23
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	18
Anderson-Darling Test Statistic	0.269
Anderson-Darling 5% Critical Value	0.679
Kolmogorov-Smirnov Test Statistic	0.235
Kolmogorov-Smirnov 5% Critical Value	0.358

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	27041
95% Adjusted Gamma UCL	33401

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	22133
95% Jackknife UCL	23558
95% Standard Bootstrap UCL	21583
95% Bootstrap-t UCL	26683
95% Hall's Bootstrap UCL	27505
95% Percentile Bootstrap UCL	21800
95% BCA Bootstrap UCL	21520
95% Chebyshev(Mean, Sd) UCL	30075
97.5% Chebyshev(Mean, Sd) UCL	35594
99% Chebyshev(Mean, Sd) UCL	46435

Potential UCL to Use

Use 95% Student's-t UCL 23558

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Manganese - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 7

Raw Statistics

Minimum	240
Maximum	1300
Mean	877.1
Median	970
SD	332.2
Coefficient of Variation	0.379
Skewness	-0.97

Log-transformed Statistics

Minimum of Log Data	5.481
Maximum of Log Data	7.17
Mean of log Data	6.678
SD of log Data	0.538

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.934
Shapiro Wilk Critical Value	0.818

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.795
Shapiro Wilk Critical Value	0.818

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	1100

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1027
95% Modified-t UCL (Johnson-1978)	1093

Assuming Lognormal Distribution

95% H-UCL	1502
95% Chebyshev (MVUE) UCL	1655
97.5% Chebyshev (MVUE) UCL	1982
99% Chebyshev (MVUE) UCL	2624

Gamma Distribution Test

k star (bias corrected)	3.362
Theta Star	260.9
MLE of Mean	877.1
MLE of Standard Deviation	478.4
nu star	53.78
Approximate Chi Square Value (.05)	37.93
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	34.6
Anderson-Darling Test Statistic	0.606
Anderson-Darling 5% Critical Value	0.719
Kolmogorov-Smirnov Test Statistic	0.273
Kolmogorov-Smirnov 5% Critical Value	0.295

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	1244
95% Adjusted Gamma UCL	1364

Nonparametric Statistics

95% CLT UCL	1070
95% Jackknife UCL	1100
95% Standard Bootstrap UCL	1057
95% Bootstrap-t UCL	1054
95% Hall's Bootstrap UCL	1033
95% Percentile Bootstrap UCL	1050
95% BCA Bootstrap UCL	1026
95% Chebyshev(Mean, Sd) UCL	1389
97.5% Chebyshev(Mean, Sd) UCL	1611
99% Chebyshev(Mean, Sd) UCL	2046

Potential UCL to Use

Use 95% Student's-t UCL 1100

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Mercury - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 6

Raw Statistics

Minimum	0.064
Maximum	0.34
Mean	0.164
Median	0.14
SD	0.0978
Coefficient of Variation	0.596
Skewness	1.18

Log-transformed Statistics

Minimum of Log Data	-2.749
Maximum of Log Data	-1.079
Mean of log Data	-1.947
SD of log Data	0.558

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.828
Shapiro Wilk Critical Value	0.818

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.928
Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	0.23

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	0.237
95% Modified-t UCL (Johnson-1978)	0.232

Assuming Lognormal Distribution

95% H-UCL	0.28
95% Chebyshev (MVUE) UCL	0.305
97.5% Chebyshev (MVUE) UCL	0.367
99% Chebyshev (MVUE) UCL	0.487

Gamma Distribution Test

k star (bias corrected)	2.398
Theta Star	0.0685
MLE of Mean	0.164
MLE of Standard Deviation	0.106
nu star	38.37
Approximate Chi Square Value (.05)	25.19
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	22.52
Anderson-Darling Test Statistic	0.493
Anderson-Darling 5% Critical Value	0.719
Kolmogorov-Smirnov Test Statistic	0.299
Kolmogorov-Smirnov 5% Critical Value	0.296

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	0.25
95% Adjusted Gamma UCL	0.28

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	0.221
95% Jackknife UCL	0.23
95% Standard Bootstrap UCL	0.218
95% Bootstrap-t UCL	0.335
95% Hall's Bootstrap UCL	0.714
95% Percentile Bootstrap UCL	0.224
95% BCA Bootstrap UCL	0.23
95% Chebyshev(Mean, Sd) UCL	0.315
97.5% Chebyshev(Mean, Sd) UCL	0.38
99% Chebyshev(Mean, Sd) UCL	0.508

Potential UCL to Use

Use 95% Student's-t UCL 0.23

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Nickel - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 7

Raw Statistics

Minimum	15.6
Maximum	260
Mean	116.7
Median	110
SD	95.79
Coefficient of Variation	0.821
Skewness	0.633

Log-transformed Statistics

Minimum of Log Data	2.747
Maximum of Log Data	5.561
Mean of log Data	4.351
SD of log Data	1.065

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.868
Shapiro Wilk Critical Value	0.818

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.899
Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	180.8

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	180.5
95% Modified-t UCL (Johnson-1978)	182.1

Assuming Lognormal Distribution

95% H-UCL	579.8
95% Chebyshev (MVUE) UCL	332.7
97.5% Chebyshev (MVUE) UCL	422.8
99% Chebyshev (MVUE) UCL	599.9

Gamma Distribution Test

k star (bias corrected)	0.938
Theta Star	124.5
MLE of Mean	116.7
MLE of Standard Deviation	120.5
nu star	15
Approximate Chi Square Value (.05)	7.262
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	5.954
Anderson-Darling Test Statistic	0.399
Anderson-Darling 5% Critical Value	0.73
Kolmogorov-Smirnov Test Statistic	0.213
Kolmogorov-Smirnov 5% Critical Value	0.3

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	241
95% Adjusted Gamma UCL	294

Nonparametric Statistics

95% CLT UCL	172.4
95% Jackknife UCL	180.8
95% Standard Bootstrap UCL	169.5
95% Bootstrap-t UCL	208.2
95% Hall's Bootstrap UCL	221
95% Percentile Bootstrap UCL	174.1
95% BCA Bootstrap UCL	174.4
95% Chebyshev(Mean, Sd) UCL	264.3
97.5% Chebyshev(Mean, Sd) UCL	328.2
99% Chebyshev(Mean, Sd) UCL	453.6

Potential UCL to Use

Use 95% Student's-t UCL 180.8

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

pH - Area 5

General Statistics

Number of Valid Observations 11

Number of Distinct Observations 11

Raw Statistics

Minimum	4.93
Maximum	6.97
Mean	5.936
Median	5.9
SD	0.604
Coefficient of Variation	0.102
Skewness	-0.0819

Log-transformed Statistics

Minimum of Log Data	1.595
Maximum of Log Data	1.942
Mean of log Data	1.776
SD of log Data	0.103

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.983
Shapiro Wilk Critical Value	0.85

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.976
Shapiro Wilk Critical Value	0.85

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 6.266

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	6.231
95% Modified-t UCL (Johnson-1978)	6.266

Assuming Lognormal Distribution

95% H-UCL	6.296
95% Chebyshev (MVUE) UCL	6.741
97.5% Chebyshev (MVUE) UCL	7.089
99% Chebyshev (MVUE) UCL	7.773

Gamma Distribution Test

k star (bias corrected)	76.27
Theta Star	0.0778
MLE of Mean	5.936
MLE of Standard Deviation	0.68
nu star	1678
Approximate Chi Square Value (.05)	1584
Adjusted Level of Significance	0.0278
Adjusted Chi Square Value	1569
Anderson-Darling Test Statistic	0.166
Anderson-Darling 5% Critical Value	0.726
Kolmogorov-Smirnov Test Statistic	0.108
Kolmogorov-Smirnov 5% Critical Value	0.254

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	6.289
95% Adjusted Gamma UCL	6.349

Nonparametric Statistics

95% CLT UCL	6.236
95% Jackknife UCL	6.266
95% Standard Bootstrap UCL	6.219
95% Bootstrap-t UCL	6.241
95% Hall's Bootstrap UCL	6.248
95% Percentile Bootstrap UCL	6.215
95% BCA Bootstrap UCL	6.221
95% Chebyshev(Mean, Sd) UCL	6.73
97.5% Chebyshev(Mean, Sd) UCL	7.074
99% Chebyshev(Mean, Sd) UCL	7.748

Potential UCL to Use

Use 95% Student's-t UCL 6.266

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Potassium - Area 5

General Statistics

Number of Valid Observations 5 | Number of Distinct Observations 5

Raw Statistics

Minimum	680
Maximum	2000
Mean	1002
Median	750
SD	560.8
Coefficient of Variation	0.56
Skewness	2.179

Log-transformed Statistics

Minimum of Log Data	6.522
Maximum of Log Data	7.601
Mean of log Data	6.817
SD of log Data	0.445

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!
If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 5 Values in this data
Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.646
Shapiro Wilk Critical Value	0.762

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 1537

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1676
95% Modified-t UCL (Johnson-1978)	1577

Gamma Distribution Test

k star (bias corrected)	2.345
Theta Star	427.2
MLE of Mean	1002
MLE of Standard Deviation	654.3
nu star	23.45
Approximate Chi Square Value (.05)	13.43
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	10.28
Anderson-Darling Test Statistic	0.928
Anderson-Darling 5% Critical Value	0.681
Kolmogorov-Smirnov Test Statistic	0.402
Kolmogorov-Smirnov 5% Critical Value	0.358

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	1749
95% Adjusted Gamma UCL	2287

Potential UCL to Use

Use 95% Student's-t UCL 1537
or 95% Modified-t UCL 1577

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.706
Shapiro Wilk Critical Value	0.762

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	1869
95% Chebyshev (MVUE) UCL	1837
97.5% Chebyshev (MVUE) UCL	2205
99% Chebyshev (MVUE) UCL	2927

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL	1415
95% Jackknife UCL	1537
95% Standard Bootstrap UCL	1374
95% Bootstrap-t UCL	5562
95% Hall's Bootstrap UCL	4727
95% Percentile Bootstrap UCL	1486
95% BCA Bootstrap UCL	1516
95% Chebyshev(Mean, Sd) UCL	2095
97.5% Chebyshev(Mean, Sd) UCL	2568
99% Chebyshev(Mean, Sd) UCL	3497

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Selenium - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 5

Raw Statistics

Minimum	0.71
Maximum	1.1
Mean	0.89
Median	0.84
SD	0.154
Coefficient of Variation	0.174
Skewness	0.429

Log-transformed Statistics

Minimum of Log Data	-0.342
Maximum of Log Data	0.0953
Mean of log Data	-0.128
SD of log Data	0.172

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!
If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 5 Values in this data
Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.96
Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL	1.037

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	1.018
95% Modified-t UCL (Johnson-1978)	1.039

Gamma Distribution Test

k star (bias corrected)	16.97
Theta Star	0.0525
MLE of Mean	0.89
MLE of Standard Deviation	0.216
nu star	169.7
Approximate Chi Square Value (.05)	140.6
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	128.9
Anderson-Darling Test Statistic	0.24
Anderson-Darling 5% Critical Value	0.678
Kolmogorov-Smirnov Test Statistic	0.225
Kolmogorov-Smirnov 5% Critical Value	0.357

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	1.074
95% Adjusted Gamma UCL	1.171

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.97
Shapiro Wilk Critical Value	0.762

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	1.074
95% Chebyshev (MVUE) UCL	1.189
97.5% Chebyshev (MVUE) UCL	1.318
99% Chebyshev (MVUE) UCL	1.572

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	1.004
95% Jackknife UCL	1.037
95% Standard Bootstrap UCL	0.991
95% Bootstrap-t UCL	1.144
95% Hall's Bootstrap UCL	1.459
95% Percentile Bootstrap UCL	0.998
95% BCA Bootstrap UCL	0.998
95% Chebyshev(Mean, Sd) UCL	1.191
97.5% Chebyshev(Mean, Sd) UCL	1.321
99% Chebyshev(Mean, Sd) UCL	1.577

Potential UCL to Use

Use 95% Student's-t UCL 1.037

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Silver - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 5

Raw Statistics

Minimum	0.08
Maximum	0.14
Mean	0.0982
Median	0.087
SD	0.0245
Coefficient of Variation	0.25
Skewness	1.769

Log-transformed Statistics

Minimum of Log Data	-2.526
Maximum of Log Data	-1.966
Mean of log Data	-2.343
SD of log Data	0.226

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!
If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 5 Values in this data
Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.794
Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 0.122

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	0.126
95% Modified-t UCL (Johnson-1978)	0.123

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.837
Shapiro Wilk Critical Value	0.762

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	0.127
95% Chebyshev (MVUE) UCL	0.141
97.5% Chebyshev (MVUE) UCL	0.16
99% Chebyshev (MVUE) UCL	0.197

Gamma Distribution Test

k star (bias corrected)	9.335
Theta Star	0.0105
MLE of Mean	0.0982
MLE of Standard Deviation	0.0321
nu star	93.35
Approximate Chi Square Value (.05)	72.07
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	63.93
Anderson-Darling Test Statistic	0.543
Anderson-Darling 5% Critical Value	0.679
Kolmogorov-Smirnov Test Statistic	0.291
Kolmogorov-Smirnov 5% Critical Value	0.357

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	0.127
95% Adjusted Gamma UCL	0.143

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	0.116
95% Jackknife UCL	0.122
95% Standard Bootstrap UCL	0.115
95% Bootstrap-t UCL	0.216
95% Hall's Bootstrap UCL	0.223
95% Percentile Bootstrap UCL	0.117
95% BCA Bootstrap UCL	0.121
95% Chebyshev(Mean, Sd) UCL	0.146
97.5% Chebyshev(Mean, Sd) UCL	0.167
99% Chebyshev(Mean, Sd) UCL	0.207

Potential UCL to Use

Use 95% Student's-t UCL 0.122

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Sodium - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 5

Raw Statistics

Minimum	88
Maximum	120
Mean	96.6
Median	91
SD	13.26
Coefficient of Variation	0.137
Skewness	2.091

Log-transformed Statistics

Minimum of Log Data	4.477
Maximum of Log Data	4.787
Mean of log Data	4.564
SD of log Data	0.127

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!
If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 5 Values in this data
Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.703
Shapiro Wilk Critical Value	0.762

Data not Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 109.2

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	112.3
95% Modified-t UCL (Johnson-1978)	110.2

Gamma Distribution Test

k star (bias corrected)	29.52
Theta Star	3.272
MLE of Mean	96.6
MLE of Standard Deviation	17.78
nu star	295.2
Approximate Chi Square Value (.05)	256.4
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	240.5
Anderson-Darling Test Statistic	0.828
Anderson-Darling 5% Critical Value	0.678
Kolmogorov-Smirnov Test Statistic	0.377
Kolmogorov-Smirnov 5% Critical Value	0.357

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	111.2
95% Adjusted Gamma UCL	118.6

Potential UCL to Use

Use 95% Student's-t UCL 109.2
or 95% Modified-t UCL 110.2

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.724
Shapiro Wilk Critical Value	0.762

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	110.4
95% Chebyshev (MVUE) UCL	120.5
97.5% Chebyshev (MVUE) UCL	130.9
99% Chebyshev (MVUE) UCL	151.2

Data Distribution

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

95% CLT UCL	106.4
95% Jackknife UCL	109.2
95% Standard Bootstrap UCL	105.6
95% Bootstrap-t UCL	161.7
95% Hall's Bootstrap UCL	161.5
95% Percentile Bootstrap UCL	107.8
95% BCA Bootstrap UCL	108.8
95% Chebyshev(Mean, Sd) UCL	122.4
97.5% Chebyshev(Mean, Sd) UCL	133.6
99% Chebyshev(Mean, Sd) UCL	155.6

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Thallium - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 4

Raw Statistics

Minimum	0.13
Maximum	0.23
Mean	0.168
Median	0.14
SD	0.0482
Coefficient of Variation	0.287
Skewness	0.674

Log-transformed Statistics

Minimum of Log Data	-2.04
Maximum of Log Data	-1.47
Mean of log Data	-1.815
SD of log Data	0.278

Warning: There are only 4 Distinct Values in this data

There are insufficient Distinct Values to perform some GOF tests and bootstrap methods.

Those methods will return a 'N/A' value on your output display!

It is necessary to have 4 or more Distinct Values to compute bootstrap methods.

However, results obtained using 4 to 9 distinct values may not be reliable.

It is recommended to have 10-15 or more observations for accurate and meaningful bootstrap results.

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!

If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.793
Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 0.214

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	0.21
95% Modified-t UCL (Johnson-1978)	0.215

Gamma Distribution Test

k star (bias corrected)	6.532
Theta Star	0.0257
MLE of Mean	0.168
MLE of Standard Deviation	0.0657
nu star	65.32
Approximate Chi Square Value (.05)	47.72
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	41.22
Anderson-Darling Test Statistic	0.643
Anderson-Darling 5% Critical Value	0.679
Kolmogorov-Smirnov Test Statistic	0.333
Kolmogorov-Smirnov 5% Critical Value	0.357

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	0.23
95% Adjusted Gamma UCL	0.266

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.795
Shapiro Wilk Critical Value	0.762

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	0.234
95% Chebyshev (MVUE) UCL	0.258
97.5% Chebyshev (MVUE) UCL	0.298
99% Chebyshev (MVUE) UCL	0.375

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	0.203
95% Jackknife UCL	0.214
95% Standard Bootstrap UCL	0.2
95% Bootstrap-t UCL	0.467
95% Hall's Bootstrap UCL	0.491
95% Percentile Bootstrap UCL	0.202
95% BCA Bootstrap UCL	0.202
95% Chebyshev(Mean, Sd) UCL	0.262
97.5% Chebyshev(Mean, Sd) UCL	0.303
99% Chebyshev(Mean, Sd) UCL	0.382

Potential UCL to Use

Use 95% Student's-t UCL 0.214

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.

These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)

and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Vanadium - Area 5

General Statistics

Number of Valid Observations 5

Number of Distinct Observations 5

Raw Statistics

Minimum	14
Maximum	97
Mean	71.4
Median	81
SD	34.11
Coefficient of Variation	0.478
Skewness	-1.644

Log-transformed Statistics

Minimum of Log Data	2.639
Maximum of Log Data	4.575
Mean of log Data	4.081
SD of log Data	0.818

Warning: A sample size of 'n' = 5 may not adequate enough to compute meaningful and reliable test statistics and estimates!

It is suggested to collect at least 8 to 10 observations using these statistical methods!
If possible compute and collect Data Quality Objectives (DQO) based sample size and analytical results.

Warning: There are only 5 Values in this data
Note: It should be noted that even though bootstrap methods may be performed on this data set,
the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.818
Shapiro Wilk Critical Value	0.762

Data appear Normal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 103.9

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	84.5
95% Modified-t UCL (Johnson-1978)	102

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.697
Shapiro Wilk Critical Value	0.762

Data not Lognormal at 5% Significance Level

Assuming Lognormal Distribution

95% H-UCL	449.7
95% Chebyshev (MVUE) UCL	195.5
97.5% Chebyshev (MVUE) UCL	246.9
99% Chebyshev (MVUE) UCL	348

Gamma Distribution Test

k star (bias corrected)	1.265
Theta Star	56.43
MLE of Mean	71.4
MLE of Standard Deviation	63.47
nu star	12.65
Approximate Chi Square Value (.05)	5.66
Adjusted Level of Significance	0.0086
Adjusted Chi Square Value	3.798
Anderson-Darling Test Statistic	0.772
Anderson-Darling 5% Critical Value	0.683
Kolmogorov-Smirnov Test Statistic	0.357
Kolmogorov-Smirnov 5% Critical Value	0.36

Data follow Appr. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	159.6
95% Adjusted Gamma UCL	237.9

Data Distribution

Data appear Normal at 5% Significance Level

Nonparametric Statistics

95% CLT UCL	96.49
95% Jackknife UCL	103.9
95% Standard Bootstrap UCL	94.22
95% Bootstrap-t UCL	94.28
95% Hall's Bootstrap UCL	85.6
95% Percentile Bootstrap UCL	91
95% BCA Bootstrap UCL	88
95% Chebyshev(Mean, Sd) UCL	137.9
97.5% Chebyshev(Mean, Sd) UCL	166.7
99% Chebyshev(Mean, Sd) UCL	223.2

Potential UCL to Use

Use 95% Student's-t UCL 103.9

Recommended UCL exceeds the maximum observation

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.
These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)
and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

Zinc - Area 5

General Statistics

Number of Valid Observations 8

Number of Distinct Observations 8

Raw Statistics

Minimum	31
Maximum	192
Mean	99.88
Median	82.5
SD	52.3
Coefficient of Variation	0.524
Skewness	0.74

Log-transformed Statistics

Minimum of Log Data	3.434
Maximum of Log Data	5.257
Mean of log Data	4.474
SD of log Data	0.566

Warning: There are only 8 Values in this data

Note: It should be noted that even though bootstrap methods may be performed on this data set, the resulting calculations may not be reliable enough to draw conclusions

The literature suggests to use bootstrap methods on data sets having more than 10-15 observations.

Relevant UCL Statistics

Normal Distribution Test

Shapiro Wilk Test Statistic	0.937
Shapiro Wilk Critical Value	0.818

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Shapiro Wilk Test Statistic	0.957
Shapiro Wilk Critical Value	0.818

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

95% Student's-t UCL 134.9

95% UCLs (Adjusted for Skewness)

95% Adjusted-CLT UCL (Chen-1995)	135.5
95% Modified-t UCL (Johnson-1978)	135.7

Assuming Lognormal Distribution

95% H-UCL	174.6
95% Chebyshev (MVUE) UCL	189.6
97.5% Chebyshev (MVUE) UCL	228
99% Chebyshev (MVUE) UCL	303.5

Gamma Distribution Test

k star (bias corrected)	2.597
Theta Star	38.46
MLE of Mean	99.88
MLE of Standard Deviation	61.98
nu star	41.55
Approximate Chi Square Value (.05)	27.77
Adjusted Level of Significance	0.0195
Adjusted Chi Square Value	24.96
Anderson-Darling Test Statistic	0.237
Anderson-Darling 5% Critical Value	0.719
Kolmogorov-Smirnov Test Statistic	0.192
Kolmogorov-Smirnov 5% Critical Value	0.295

Data appear Gamma Distributed at 5% Significance Level

Data Distribution

Data appear Normal at 5% Significance Level

Assuming Gamma Distribution

95% Approximate Gamma UCL	149.4
95% Adjusted Gamma UCL	166.3

Nonparametric Statistics

95% CLT UCL	130.3
95% Jackknife UCL	134.9
95% Standard Bootstrap UCL	128
95% Bootstrap-t UCL	146.7
95% Hall's Bootstrap UCL	174.7
95% Percentile Bootstrap UCL	130.6
95% BCA Bootstrap UCL	129.3
95% Chebyshev(Mean, Sd) UCL	180.5
97.5% Chebyshev(Mean, Sd) UCL	215.3
99% Chebyshev(Mean, Sd) UCL	283.8

Potential UCL to Use

Use 95% Student's-t UCL 134.9

Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL. These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002) and Singh and Singh (2003). For additional insight, the user may want to consult a statistician.

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ATTACHMENT D
PROUCL OUTPUT FILES – SOIL BACKGROUND COMPARISONS

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Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Aluminum - Area 1
Area of Concern Data: Al-1
Background Data: Al-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	0
Number of Detect Data	47	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	529	560
Maximum Detected	25800	61000
Mean of Detected Data	7591	19603
Median of Detected Data	3870	17500
SD of Detected Data	8041	12019

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1650
WMW Test U-Stat	-5.577
WMW Critical Value (0.050)	1.645
P-Value	1

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Antimony - Area 1
Area of Concern Data: Sb-1
Background Data: Sb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	2	0
Number of Detect Data	45	60
Minimum Non-Detect	2	N/A
Maximum Non-Detect	2	N/A
Percent Non detects	4.26%	0.00%
Minimum Detected	2.8	0.096
Maximum Detected	10700	46
Mean of Detected Data	2578	4.361
Median of Detected Data	1290	1.35
SD of Detected Data	2895	9.143

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	3816
WMW Test U-Stat	8.019
WMW Critical Value (0.050)	1.645
P-Value	5.55E-16

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Arsenic - Area 1
Area of Concern Data: As-1
Background Data: As-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	0
Number of Detect Data	47	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	51.7	1.5
Maximum Detected	92100	700
Mean of Detected Data	23291	101.5
Median of Detected Data	14500	48
SD of Detected Data	23669	142.1

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	3866
WMW Test U-Stat	8.333
WMW Critical Value (0.050)	1.645
P-Value	0

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Barium - Area 1
Area of Concern Data: Ba-1
Background Data: Ba-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	0
Number of Detect Data	47	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	19.2	2.9
Maximum Detected	1220	120
Mean of Detected Data	134.5	38.24
Median of Detected Data	46.7	32.6
SD of Detected Data	251.3	25.77

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	3010
WMW Test U-Stat	2.96
WMW Critical Value (0.050)	1.645
P-Value	0.00154

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Beryllium - Area 1
Area of Concern Data: Be-1
Background Data: Be-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	46	60
Number of Non-Detect Data	36	8
Number of Detect Data	10	52
Minimum Non-Detect	0.2	0.023
Maximum Non-Detect	2	0.3
Percent Non detects	78.26%	13.33%
Minimum Detected	0.22	0.055
Maximum Detected	2.93	0.94
Mean of Detected Data	0.824	0.293
Median of Detected Data	0.3	0.245
SD of Detected Data	0.926	0.223

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	-2.121
Critical z (0.95)	1.645
P-Value	0.983

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cadmium - Area 1
Area of Concern Data: Cd-1
Background Data: Cd-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	5	0
Number of Detect Data	42	60
Minimum Non-Detect	0.2	N/A
Maximum Non-Detect	2	N/A
Percent Non detects	10.64%	0.00%
Minimum Detected	0.23	0.051
Maximum Detected	114	1.13
Mean of Detected Data	13.76	0.352
Median of Detected Data	6.115	0.255
SD of Detected Data	26.05	0.27

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	6.808
Critical z (0.95)	1.645
P-Value	4.96E-12

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Chromium - Area 1
Area of Concern Data: Cr-1
Background Data: Cr-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	0
Number of Detect Data	47	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	5.1	0.9
Maximum Detected	142	100
Mean of Detected Data	47.26	29.52
Median of Detected Data	39.6	25.5
SD of Detected Data	25.92	23.94

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	3148
WMW Test U-Stat	3.826
WMW Critical Value (0.050)	1.645
P-Value	6.52E-05

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cobalt - Area 1
Area of Concern Data: Co-1
Background Data: Co-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	46	60
Number of Non-Detect Data	11	0
Number of Detect Data	35	60
Minimum Non-Detect	0.6	N/A
Maximum Non-Detect	6	N/A
Percent Non detects	23.91%	0.00%
Minimum Detected	0.65	0.56
Maximum Detected	28.1	50
Mean of Detected Data	6.965	9.055
Median of Detected Data	5.45	5.45
SD of Detected Data	5.97	9.64

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	-2.113
Critical z (0.95)	1.645
P-Value	0.983

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Copper - Area 1
Area of Concern Data: Cu-1
Background Data: Cu-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	0
Number of Detect Data	47	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	29.9	1.1
Maximum Detected	4240	480
Mean of Detected Data	721.8	56.64
Median of Detected Data	452	25.1
SD of Detected Data	836.5	88.61

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	3783
WMW Test U-Stat	7.809
WMW Critical Value (0.050)	1.645
P-Value	2.89E-15

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Iron - Area 1
Area of Concern Data: Fe-1
Background Data: Fe-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	0
Number of Detect Data	47	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	8270	2300
Maximum Detected	149000	56000
Mean of Detected Data	58821	25905
Median of Detected Data	57500	27150
SD of Detected Data	31248	12156

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	3540
WMW Test U-Stat	6.283
WMW Critical Value (0.050)	1.645
P-Value	1.66E-10

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Lead - Area 1
Area of Concern Data: Pb-1
Background Data: Pb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	0
Number of Detect Data	47	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	16.9	1
Maximum Detected	22500	210
Mean of Detected Data	7289	32.89
Median of Detected Data	3980	19.15
SD of Detected Data	7078	40.98

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	3863
WMW Test U-Stat	8.314
WMW Critical Value (0.050)	1.645
P-Value	0

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Manganese - Area 1
Area of Concern Data: Mn-1
Background Data: Mn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	0
Number of Detect Data	47	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	16.6	10
Maximum Detected	7210	2400
Mean of Detected Data	471.6	479.3
Median of Detected Data	217	225
SD of Detected Data	1071	534.3

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	2349
WMW Test U-Stat	-1.189
WMW Critical Value (0.050)	1.645
P-Value	0.883

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Mercury - Area 1
Area of Concern Data: Hg-1
Background Data: Hg-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	2
Number of Detect Data	47	58
Minimum Non-Detect	N/A	0.033
Maximum Non-Detect	N/A	0.057
Percent Non detects	0.00%	3.33%
Minimum Detected	0.033	0.0333
Maximum Detected	15.3	0.83
Mean of Detected Data	2.13	0.2
Median of Detected Data	0.64	0.14
SD of Detected Data	3.16	0.189

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	5.452
Critical z (0.95)	1.645
P-Value	2.49E-08

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Nickel - Area 1
Area of Concern Data: Ni-1
Background Data: Ni-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	6	0
Number of Detect Data	41	60
Minimum Non-Detect	20	N/A
Maximum Non-Detect	100	N/A
Percent Non detects	12.77%	0.00%
Minimum Detected	2.1	0.68
Maximum Detected	50	320
Mean of Detected Data	16.4	24.8
Median of Detected Data	12.5	10.6
SD of Detected Data	12.18	45.94

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	0.105
Critical z (0.95)	1.645
P-Value	0.458

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Selenium - Area 1
Area of Concern Data: Se-1
Background Data: Se-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	46	60
Number of Non-Detect Data	18	13
Number of Detect Data	28	47
Minimum Non-Detect	0.6	0.21
Maximum Non-Detect	6000	6
Percent Non detects	39.13%	21.67%
Minimum Detected	0.3	0.3
Maximum Detected	6.77	3.8
Mean of Detected Data	2.162	0.989
Median of Detected Data	1.545	0.91
SD of Detected Data	1.466	0.623

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	2.75
Critical z (0.95)	1.645
P-Value	0.00298

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Silver - Area 1
Area of Concern Data: Ag-1
Background Data: Ag-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	46	60
Number of Non-Detect Data	0	8
Number of Detect Data	46	52
Minimum Non-Detect	N/A	0.5
Maximum Non-Detect	N/A	0.5
Percent Non detects	0.00%	13.33%
Minimum Detected	0.56	0.11
Maximum Detected	415	3.5
Mean of Detected Data	94.63	0.554
Median of Detected Data	52.5	0.425
SD of Detected Data	107.4	0.556

Wilcoxon-Mann-Whitney Site vs Background Test
All observations <= 0.5 (Max DL) are ranked the same
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	3795
WMW Test U-Stat	8.497
WMW Critical Value (0.050)	1.645
P-Value	0

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Thallium - Area 1
Area of Concern Data: Tl-1
Background Data: Tl-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	46	60
Number of Non-Detect Data	32	40
Number of Detect Data	14	20
Minimum Non-Detect	0.8	0.12
Maximum Non-Detect	10	1.5
Percent Non detects	69.57%	66.67%
Minimum Detected	1.5	0.13
Maximum Detected	15.8	0.33
Mean of Detected Data	4.839	0.249
Median of Detected Data	4.445	0.265
SD of Detected Data	3.395	0.0594

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	4.835
Critical z (0.95)	1.645
P-Value	6.67E-07

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Vanadium - Area 1
Area of Concern Data: V-1
Background Data: V-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	46	60
Number of Non-Detect Data	2	0
Number of Detect Data	44	60
Minimum Non-Detect	5	N/A
Maximum Non-Detect	5	N/A
Percent Non detects	4.35%	0.00%
Minimum Detected	0.92	7
Maximum Detected	104	120
Mean of Detected Data	31.16	55.36
Median of Detected Data	26.35	56.75
SD of Detected Data	25.87	24.07

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1690
WMW Test U-Stat	-4.918
WMW Critical Value (0.050)	1.645
P-Value	1

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 1.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Zinc - Area 1
Area of Concern Data: Zn-1
Background Data: Zn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	47	60
Number of Non-Detect Data	0	2
Number of Detect Data	47	58
Minimum Non-Detect	N/A	1.7
Maximum Non-Detect	N/A	2.9
Percent Non detects	0.00%	3.33%
Minimum Detected	32.5	4.8
Maximum Detected	18500	270
Mean of Detected Data	1705	66.26
Median of Detected Data	452	50.5
SD of Detected Data	3907	58.16

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	7.507
Critical z (0.95)	1.645
P-Value	3.02E-14

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Aluminum - Area 2
Area of Concern Data: Al-2
Background Data: Al-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	0
Number of Detect Data	14	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	2600	560
Maximum Detected	28900	61000
Mean of Detected Data	12193	19603
Median of Detected Data	10400	17500
SD of Detected Data	7650	12019

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	353
WMW Test U-Stat	-2.381
WMW Critical Value (0.050)	1.645
P-Value	0.991

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Antimony - Area 2
Area of Concern Data: Sb-2
Background Data: Sb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	28	60
Number of Non-Detect Data	6	0
Number of Detect Data	22	60
Minimum Non-Detect	1.6	N/A
Maximum Non-Detect	400	N/A
Percent Non detects	21.43%	0.00%
Minimum Detected	0.4	0.096
Maximum Detected	280	46
Mean of Detected Data	27.83	4.361
Median of Detected Data	7.3	1.35
SD of Detected Data	61.73	9.143

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	3.289
Critical z (0.95)	1.645
P-Value	0.000502

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Arsenic - Area 2
Area of Concern Data: As-2
Background Data: As-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	28	60
Number of Non-Detect Data	0	0
Number of Detect Data	28	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	38.3	1.5
Maximum Detected	73400	700
Mean of Detected Data	15484	101.5
Median of Detected Data	7415	48
SD of Detected Data	18771	142.1

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1967
WMW Test U-Stat	6.455
WMW Critical Value (0.050)	1.645
P-Value	5.42E-11

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Barium - Area 2
Area of Concern Data: Ba-2
Background Data: Ba-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	0
Number of Detect Data	14	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	17	2.9
Maximum Detected	110	120
Mean of Detected Data	50.21	38.24
Median of Detected Data	52.6	32.6
SD of Detected Data	25.98	25.77

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	647.5
WMW Test U-Stat	1.684
WMW Critical Value (0.050)	1.645
P-Value	0.0461

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Beryllium - Area 2
Area of Concern Data: Be-2
Background Data: Be-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	11	60
Number of Non-Detect Data	0	8
Number of Detect Data	11	52
Minimum Non-Detect	N/A	0.023
Maximum Non-Detect	N/A	0.3
Percent Non detects	0.00%	13.33%
Minimum Detected	0.041	0.055
Maximum Detected	0.21	0.94
Mean of Detected Data	0.0994	0.293
Median of Detected Data	0.082	0.245
SD of Detected Data	0.0532	0.223

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	-2.97
Critical z (0.95)	1.645
P-Value	0.999

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cadmium - Area 2
Area of Concern Data: Cd-2
Background Data: Cd-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	28	60
Number of Non-Detect Data	9	0
Number of Detect Data	19	60
Minimum Non-Detect	0.3	N/A
Maximum Non-Detect	50	N/A
Percent Non detects	32.14%	0.00%
Minimum Detected	0.086	0.051
Maximum Detected	4.23	1.13
Mean of Detected Data	0.952	0.352
Median of Detected Data	0.54	0.255
SD of Detected Data	1.001	0.27

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	2.419
Critical z (0.95)	1.645
P-Value	0.00779

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Chromium - Area 2
Area of Concern Data: Cr-2
Background Data: Cr-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	28	60
Number of Non-Detect Data	2	0
Number of Detect Data	26	60
Minimum Non-Detect	5	N/A
Maximum Non-Detect	30	N/A
Percent Non detects	7.14%	0.00%
Minimum Detected	1.7	0.9
Maximum Detected	217	100
Mean of Detected Data	24.27	29.52
Median of Detected Data	6.95	25.5
SD of Detected Data	43.28	23.94

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	-2.827
Critical z (0.95)	1.645
P-Value	0.998

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cobalt - Area 2
Area of Concern Data: Co-2
Background Data: Co-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	11	60
Number of Non-Detect Data	0	0
Number of Detect Data	11	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	4.2	0.56
Maximum Detected	78	50
Mean of Detected Data	25.51	9.055
Median of Detected Data	9	5.45
SD of Detected Data	26.29	9.64

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	551
WMW Test U-Stat	2.455
WMW Critical Value (0.050)	1.645
P-Value	0.00704

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Copper - Area 2
Area of Concern Data: Cu-2
Background Data: Cu-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	28	60
Number of Non-Detect Data	0	0
Number of Detect Data	28	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	8	1.1
Maximum Detected	2460	480
Mean of Detected Data	501.4	56.64
Median of Detected Data	300	25.1
SD of Detected Data	592.1	88.61

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1899
WMW Test U-Stat	5.841
WMW Critical Value (0.050)	1.645
P-Value	2.59E-09

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Iron - Area 2
Area of Concern Data: Fe-2
Background Data: Fe-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	0
Number of Detect Data	14	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	17800	2300
Maximum Detected	200000	56000
Mean of Detected Data	80636	25905
Median of Detected Data	79500	27150
SD of Detected Data	53237	12156

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	799
WMW Test U-Stat	3.775
WMW Critical Value (0.050)	1.645
P-Value	8.01E-05

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Lead - Area 2
Area of Concern Data: Pb-2
Background Data: Pb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	28	60
Number of Non-Detect Data	0	0
Number of Detect Data	28	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	6.24	1
Maximum Detected	1660	210
Mean of Detected Data	358.7	32.89
Median of Detected Data	111	19.15
SD of Detected Data	479.6	40.98

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1722
WMW Test U-Stat	4.255
WMW Critical Value (0.050)	1.645
P-Value	1.04E-05

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Manganese - Area 2
Area of Concern Data: Mn-2
Background Data: Mn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	0
Number of Detect Data	14	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	120	10
Maximum Detected	2100	2400
Mean of Detected Data	616.7	479.3
Median of Detected Data	323.5	225
SD of Detected Data	593.6	534.3

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	635
WMW Test U-Stat	1.511
WMW Critical Value (0.050)	1.645
P-Value	0.0654

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Mercury - Area 2
Area of Concern Data: Hg-2
Background Data: Hg-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	28	60
Number of Non-Detect Data	3	2
Number of Detect Data	25	58
Minimum Non-Detect	0.2	0.033
Maximum Non-Detect	0.2	0.057
Percent Non detects	10.71%	3.33%
Minimum Detected	0.034	0.0333
Maximum Detected	1	0.83
Mean of Detected Data	0.487	0.2
Median of Detected Data	0.43	0.14
SD of Detected Data	0.335	0.189

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	3.509
Critical z (0.95)	1.645
P-Value	0.000225

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Nickel - Area 2
Area of Concern Data: Ni-2
Background Data: Ni-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	0
Number of Detect Data	14	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	1.5	0.68
Maximum Detected	18	320
Mean of Detected Data	7.993	24.8
Median of Detected Data	7.5	10.6
SD of Detected Data	6.241	45.94

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	365
WMW Test U-Stat	-2.215
WMW Critical Value (0.050)	1.645
P-Value	0.987

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Selenium - Area 2
Area of Concern Data: Se-2
Background Data: Se-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	25	60
Number of Non-Detect Data	6	13
Number of Detect Data	19	47
Minimum Non-Detect	1	0.21
Maximum Non-Detect	50	6
Percent Non detects	24.00%	21.67%
Minimum Detected	0.1	0.3
Maximum Detected	25	3.8
Mean of Detected Data	3.866	0.989
Median of Detected Data	1.22	0.91
SD of Detected Data	6.419	0.623

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	2.745
Critical z (0.95)	1.645
P-Value	0.00303

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Silver - Area 2
Area of Concern Data: Ag-2
Background Data: Ag-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	25	60
Number of Non-Detect Data	5	8
Number of Detect Data	20	52
Minimum Non-Detect	0.5	0.5
Maximum Non-Detect	30	0.5
Percent Non detects	20.00%	13.33%
Minimum Detected	0.2	0.11
Maximum Detected	70	3.5
Mean of Detected Data	13.4	0.554
Median of Detected Data	6.015	0.425
SD of Detected Data	17.79	0.556

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	4.872
Critical z (0.95)	1.645
P-Value	5.51E-07

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Thallium - Area 2
Area of Concern Data: Tl-2
Background Data: Tl-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	11	60
Number of Non-Detect Data	1	40
Number of Detect Data	10	20
Minimum Non-Detect	0.12	0.12
Maximum Non-Detect	0.12	1.5
Percent Non detects	9.09%	66.67%
Minimum Detected	0.15	0.13
Maximum Detected	0.47	0.33
Mean of Detected Data	0.276	0.249
Median of Detected Data	0.26	0.265
SD of Detected Data	0.113	0.0594

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	2.497
Critical z (0.95)	1.645
P-Value	0.00626

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Vanadium - Area 2
Area of Concern Data: V-2
Background Data: V-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	11	60
Number of Non-Detect Data	0	0
Number of Detect Data	11	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	13	7
Maximum Detected	63	120
Mean of Detected Data	34.82	55.36
Median of Detected Data	38	56.75
SD of Detected Data	18.52	24.07

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	230
WMW Test U-Stat	-2.646
WMW Critical Value (0.050)	1.645
P-Value	0.996

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 2.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Zinc - Area 2
Area of Concern Data: Zn-2
Background Data: Zn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	28	60
Number of Non-Detect Data	0	2
Number of Detect Data	28	58
Minimum Non-Detect	N/A	1.7
Maximum Non-Detect	N/A	2.9
Percent Non detects	0.00%	3.33%
Minimum Detected	5	4.8
Maximum Detected	971	270
Mean of Detected Data	221.3	66.26
Median of Detected Data	145.5	50.5
SD of Detected Data	208.6	58.16

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	4.461
Critical z (0.95)	1.645
P-Value	4.07E-06

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Aluminum - Area 3
Area of Concern Data: Al-3
Background Data: Al-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	0	0
Number of Detect Data	18	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	1270	560
Maximum Detected	27000	61000
Mean of Detected Data	10533	19603
Median of Detected Data	8850	17500
SD of Detected Data	8168	12019

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	438
WMW Test U-Stat	-3.244
WMW Critical Value (0.050)	1.645
P-Value	0.999

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Antimony - Area 3
Area of Concern Data: Sb-3
Background Data: Sb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	3	0
Number of Detect Data	29	60
Minimum Non-Detect	2	N/A
Maximum Non-Detect	200	N/A
Percent Non detects	9.38%	0.00%
Minimum Detected	0.32	0.096
Maximum Detected	8800	46
Mean of Detected Data	735.9	4.361
Median of Detected Data	58	1.35
SD of Detected Data	1873	9.143

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	5.472
Critical z (0.95)	1.645
P-Value	2.23E-08

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Arsenic - Area 3
Area of Concern Data: As-3
Background Data: As-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	0	0
Number of Detect Data	32	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	30	1.5
Maximum Detected	33600	700
Mean of Detected Data	8174	101.5
Median of Detected Data	5230	48
SD of Detected Data	8726	142.1

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	2303
WMW Test U-Stat	6.673
WMW Critical Value (0.050)	1.645
P-Value	1.25E-11

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Barium - Area 3
Area of Concern Data: Ba-3
Background Data: Ba-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	0	0
Number of Detect Data	18	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	3.1	2.9
Maximum Detected	130	120
Mean of Detected Data	43.29	38.24
Median of Detected Data	41.5	32.6
SD of Detected Data	34.64	25.77

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	738
WMW Test U-Stat	0.314
WMW Critical Value (0.050)	1.645
P-Value	0.377

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Beryllium - Area 3
Area of Concern Data: Be-3
Background Data: Be-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	5	8
Number of Detect Data	13	52
Minimum Non-Detect	0.044	0.023
Maximum Non-Detect	0.2	0.3
Percent Non detects	27.78%	13.33%
Minimum Detected	0.076	0.055
Maximum Detected	0.6	0.94
Mean of Detected Data	0.239	0.293
Median of Detected Data	0.2	0.245
SD of Detected Data	0.157	0.223

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	-1.142
Critical z (0.95)	1.645
P-Value	0.873

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cadmium - Area 3
Area of Concern Data: Cd-3
Background Data: Cd-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	5	0
Number of Detect Data	27	60
Minimum Non-Detect	0.3	N/A
Maximum Non-Detect	50	N/A
Percent Non detects	15.63%	0.00%
Minimum Detected	0.065	0.051
Maximum Detected	55	1.13
Mean of Detected Data	6.843	0.352
Median of Detected Data	2.97	0.255
SD of Detected Data	11.28	0.27

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	4.521
Critical z (0.95)	1.645
P-Value	3.07E-06

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Chromium - Area 3
Area of Concern Data: Cr-3
Background Data: Cr-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	8	0
Number of Detect Data	24	60
Minimum Non-Detect	5	N/A
Maximum Non-Detect	30	N/A
Percent Non detects	25.00%	0.00%
Minimum Detected	1.6	0.9
Maximum Detected	28.5	100
Mean of Detected Data	9.671	29.52
Median of Detected Data	7.25	25.5
SD of Detected Data	7.329	23.94

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	-4.765
Critical z (0.95)	1.645
P-Value	1

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cobalt - Area 3
Area of Concern Data: Co-3
Background Data: Co-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	0	0
Number of Detect Data	18	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	1.3	0.56
Maximum Detected	36	50
Mean of Detected Data	12.7	9.055
Median of Detected Data	10.43	5.45
SD of Detected Data	11.37	9.64

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	769
WMW Test U-Stat	0.682
WMW Critical Value (0.050)	1.645
P-Value	0.248

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Copper - Area 3
Area of Concern Data: Cu-3
Background Data: Cu-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	0	0
Number of Detect Data	32	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	70	1.1
Maximum Detected	1100	480
Mean of Detected Data	416.9	56.64
Median of Detected Data	307.5	25.1
SD of Detected Data	300	88.61

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	2353
WMW Test U-Stat	7.083
WMW Critical Value (0.050)	1.645
P-Value	7.06E-13

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Iron - Area 3
Area of Concern Data: Fe-3
Background Data: Fe-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	0	0
Number of Detect Data	18	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	8900	2300
Maximum Detected	272000	56000
Mean of Detected Data	56361	25905
Median of Detected Data	49800	27150
SD of Detected Data	60089	12156

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	947
WMW Test U-Stat	2.793
WMW Critical Value (0.050)	1.645
P-Value	0.00261

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Lead - Area 3
Area of Concern Data: Pb-3
Background Data: Pb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	0	0
Number of Detect Data	32	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	14.8	1
Maximum Detected	89200	210
Mean of Detected Data	4275	32.89
Median of Detected Data	420.5	19.15
SD of Detected Data	15688	40.98

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	2364
WMW Test U-Stat	7.177
WMW Critical Value (0.050)	1.645
P-Value	3.56E-13

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Manganese - Area 3
Area of Concern Data: Mn-3
Background Data: Mn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	0	0
Number of Detect Data	18	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	40	10
Maximum Detected	16000	2400
Mean of Detected Data	3377	479.3
Median of Detected Data	555.5	225
SD of Detected Data	4729	534.3

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	831
WMW Test U-Stat	1.417
WMW Critical Value (0.050)	1.645
P-Value	0.0782

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Mercury - Area 3
Area of Concern Data: Hg-3
Background Data: Hg-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	0	2
Number of Detect Data	32	58
Minimum Non-Detect	N/A	0.033
Maximum Non-Detect	N/A	0.057
Percent Non detects	0.00%	3.33%
Minimum Detected	0.069	0.0333
Maximum Detected	3.72	0.83
Mean of Detected Data	0.943	0.2
Median of Detected Data	0.695	0.14
SD of Detected Data	0.889	0.189

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	5.214
Critical z (0.95)	1.645
P-Value	9.22E-08

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Nickel - Area 3
Area of Concern Data: Ni-3
Background Data: Ni-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	0	0
Number of Detect Data	18	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	1.2	0.68
Maximum Detected	82.7	320
Mean of Detected Data	13.98	24.8
Median of Detected Data	7.3	10.6
SD of Detected Data	20.1	45.94

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	563.5
WMW Test U-Stat	-1.755
WMW Critical Value (0.050)	1.645
P-Value	0.96

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Selenium - Area 3
Area of Concern Data: Se-3
Background Data: Se-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	10	13
Number of Detect Data	22	47
Minimum Non-Detect	0.5	0.21
Maximum Non-Detect	50	6
Percent Non detects	31.25%	21.67%
Minimum Detected	0.19	0.3
Maximum Detected	17.4	3.8
Mean of Detected Data	1.716	0.989
Median of Detected Data	0.94	0.91
SD of Detected Data	3.533	0.623

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	1.025
Critical z (0.95)	1.645
P-Value	0.153

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Silver - Area 3
Area of Concern Data: Ag-3
Background Data: Ag-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	5	8
Number of Detect Data	27	52
Minimum Non-Detect	0.3	0.5
Maximum Non-Detect	30	0.5
Percent Non detects	15.63%	13.33%
Minimum Detected	0.66	0.11
Maximum Detected	307	3.5
Mean of Detected Data	43.95	0.554
Median of Detected Data	7.19	0.425
SD of Detected Data	88.95	0.556

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	6.562
Critical z (0.95)	1.645
P-Value	2.66E-11

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Thalliuum - Area 3
Area of Concern Data: Tl-3
Background Data: Tl-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	5	40
Number of Detect Data	13	20
Minimum Non-Detect	0.12	0.12
Maximum Non-Detect	1.5	1.5
Percent Non detects	27.78%	66.67%
Minimum Detected	0.12	0.13
Maximum Detected	7.3	0.33
Mean of Detected Data	2.76	0.249
Median of Detected Data	1.9	0.265
SD of Detected Data	2.558	0.0594

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	3.641
Critical z (0.95)	1.645
P-Value	0.000136

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Vanadium - Area 3
Area of Concern Data: V-3
Background Data: V-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	18	60
Number of Non-Detect Data	0	0
Number of Detect Data	18	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	5.94	7
Maximum Detected	84	120
Mean of Detected Data	41	55.36
Median of Detected Data	34.35	56.75
SD of Detected Data	23.38	24.07

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	527
WMW Test U-Stat	-2.188
WMW Critical Value (0.050)	1.645
P-Value	0.986

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 3 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Zinc - Area 3
Area of Concern Data: Zn-3
Background Data: Zn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	32	60
Number of Non-Detect Data	0	2
Number of Detect Data	32	58
Minimum Non-Detect	N/A	1.7
Maximum Non-Detect	N/A	2.9
Percent Non detects	0.00%	3.33%
Minimum Detected	14	4.8
Maximum Detected	3550	270
Mean of Detected Data	736.5	66.26
Median of Detected Data	500	50.5
SD of Detected Data	873.5	58.16

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	5.46
Critical z (0.95)	1.645
P-Value	2.38E-08

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Aluminum - Area 4
Area of Concern Data: Al-4
Background Data: Al-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	1200	560
Maximum Detected	28200	61000
Mean of Detected Data	12356	19603
Median of Detected Data	11000	17500
SD of Detected Data	7607	12019

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	750
WMW Test U-Stat	-2.678
WMW Critical Value (0.050)	1.645
P-Value	0.996

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Antimony - Area 4
Area of Concern Data: Sb-4
Background Data: Sb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	3.4	0.096
Maximum Detected	2690	46
Mean of Detected Data	330.6	4.361
Median of Detected Data	41	1.35
SD of Detected Data	631.2	9.143

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1645
WMW Test U-Stat	6.183
WMW Critical Value (0.050)	1.645
P-Value	3.14E-10

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Arsenic - Area 4
Area of Concern Data: As-4
Background Data: As-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	89	1.5
Maximum Detected	102000	700
Mean of Detected Data	14906	101.5
Median of Detected Data	2850	48
SD of Detected Data	26133	142.1

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1708
WMW Test U-Stat	6.807
WMW Critical Value (0.050)	1.645
P-Value	4.97E-12

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Barium - Area 4
Area of Concern Data: Ba-4
Background Data: Ba-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	7	2.9
Maximum Detected	125	120
Mean of Detected Data	44.91	38.24
Median of Detected Data	36	32.6
SD of Detected Data	29.87	25.77

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1115
WMW Test U-Stat	0.936
WMW Critical Value (0.050)	1.645
P-Value	0.175

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Beryllium - Area 4
Area of Concern Data: Be-4
Background Data: Be-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	8
Number of Detect Data	14	52
Minimum Non-Detect	N/A	0.023
Maximum Non-Detect	N/A	0.3
Percent Non detects	0.00%	13.33%
Minimum Detected	0.06	0.055
Maximum Detected	0.63	0.94
Mean of Detected Data	0.385	0.293
Median of Detected Data	0.365	0.245
SD of Detected Data	0.165	0.223

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	2.47
Critical z (0.95)	1.645
P-Value	0.00675

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cadmium - Area 4
Area of Concern Data: Cd-4
Background Data: Cd-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	0.2	0.051
Maximum Detected	742	1.13
Mean of Detected Data	87.24	0.352
Median of Detected Data	9.55	0.255
SD of Detected Data	185.2	0.27

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1686
WMW Test U-Stat	6.589
WMW Critical Value (0.050)	1.645
P-Value	2.21E-11

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Chromium - Area 4
Area of Concern Data: Cr-4
Background Data: Cr-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	0.74	0.9
Maximum Detected	41.6	100
Mean of Detected Data	14.27	29.52
Median of Detected Data	14.5	25.5
SD of Detected Data	9.755	23.94

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	741.5
WMW Test U-Stat	-2.763
WMW Critical Value (0.050)	1.645
P-Value	0.997

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cobalt - Area 4
Area of Concern Data: Co-4
Background Data: Co-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	0
Number of Detect Data	14	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	1.7	0.56
Maximum Detected	44	50
Mean of Detected Data	21.62	9.055
Median of Detected Data	23	5.45
SD of Detected Data	9.896	9.64

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	805.5
WMW Test U-Stat	3.864
WMW Critical Value (0.050)	1.645
P-Value	5.57E-05

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Copper - Area 4
Area of Concern Data: Cu-4
Background Data: Cu-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	4.1	1.1
Maximum Detected	557	480
Mean of Detected Data	192.7	56.64
Median of Detected Data	149	25.1
SD of Detected Data	143.8	88.61

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1542
WMW Test U-Stat	5.164
WMW Critical Value (0.050)	1.645
P-Value	1.21E-07

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Iron - Area 4
Area of Concern Data: Fe-4
Background Data: Fe-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	11000	2300
Maximum Detected	144000	56000
Mean of Detected Data	64954	25905
Median of Detected Data	62000	27150
SD of Detected Data	32144	12156

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1581
WMW Test U-Stat	5.545
WMW Critical Value (0.050)	1.645
P-Value	1.47E-08

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Lead - Area 4
Area of Concern Data: Pb-4
Background Data: Pb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	18	1
Maximum Detected	20400	210
Mean of Detected Data	2635	32.89
Median of Detected Data	1250	19.15
SD of Detected Data	4148	40.98

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1699
WMW Test U-Stat	6.718
WMW Critical Value (0.050)	1.645
P-Value	9.2E-12

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Manganese - Area 4
Area of Concern Data: Mn-4
Background Data: Mn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	0
Number of Detect Data	24	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	113	10
Maximum Detected	10000	2400
Mean of Detected Data	2738	479.3
Median of Detected Data	2000	225
SD of Detected Data	2602	534.3

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	1472
WMW Test U-Stat	4.466
WMW Critical Value (0.050)	1.645
P-Value	3.99E-06

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Mercury - Area 4
Area of Concern Data: Hg-4
Background Data: Hg-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	2
Number of Detect Data	24	58
Minimum Non-Detect	N/A	0.033
Maximum Non-Detect	N/A	0.057
Percent Non detects	0.00%	3.33%
Minimum Detected	0.028	0.0333
Maximum Detected	4.9	0.83
Mean of Detected Data	0.93	0.2
Median of Detected Data	0.535	0.14
SD of Detected Data	1.175	0.189

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	3.878
Critical z (0.95)	1.645
P-Value	5.28E-05

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Nickel - Area 4
Area of Concern Data: Ni-4
Background Data: Ni-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	1	0
Number of Detect Data	23	60
Minimum Non-Detect	107	N/A
Maximum Non-Detect	107	N/A
Percent Non detects	4.17%	0.00%
Minimum Detected	1.3	0.68
Maximum Detected	45.4	320
Mean of Detected Data	15.08	24.8
Median of Detected Data	15	10.6
SD of Detected Data	11.05	45.94

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	984
WMW Test U-Stat	-0.361
WMW Critical Value (0.050)	1.645
P-Value	0.641

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Selenium - Area 4
Area of Concern Data: Se-4
Background Data: Se-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	13
Number of Detect Data	14	47
Minimum Non-Detect	N/A	0.21
Maximum Non-Detect	N/A	6
Percent Non detects	0.00%	21.67%
Minimum Detected	0.29	0.3
Maximum Detected	2.3	3.8
Mean of Detected Data	1.176	0.989
Median of Detected Data	1.15	0.91
SD of Detected Data	0.559	0.623

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	2.038
Critical z (0.95)	1.645
P-Value	0.0208

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Silver - Area 4
Area of Concern Data: Ag-4
Background Data: Ag-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	8
Number of Detect Data	14	52
Minimum Non-Detect	N/A	0.5
Maximum Non-Detect	N/A	0.5
Percent Non detects	0.00%	13.33%
Minimum Detected	0.52	0.11
Maximum Detected	29	3.5
Mean of Detected Data	10.54	0.554
Median of Detected Data	8.7	0.425
SD of Detected Data	7.142	0.556

Wilcoxon-Mann-Whitney Site vs Background Test
All observations <= 0.5 (Max DL) are ranked the same
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	926
WMW Test U-Stat	5.527
WMW Critical Value (0.050)	1.645
P-Value	1.62E-08

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Thallium - Area 4
Area of Concern Data: Tl-4
Background Data: Tl-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	1	40
Number of Detect Data	13	20
Minimum Non-Detect	0.11	0.12
Maximum Non-Detect	0.11	1.5
Percent Non detects	7.14%	66.67%
Minimum Detected	0.17	0.13
Maximum Detected	0.93	0.33
Mean of Detected Data	0.372	0.249
Median of Detected Data	0.35	0.265
SD of Detected Data	0.197	0.0594

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	4.388
Critical z (0.95)	1.645
P-Value	5.72E-06

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Vanadium - Area 4
Area of Concern Data: V-4
Background Data: V-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	14	60
Number of Non-Detect Data	0	0
Number of Detect Data	14	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	12	7
Maximum Detected	99	120
Mean of Detected Data	40.79	55.36
Median of Detected Data	33	56.75
SD of Detected Data	23.83	24.07

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	364
WMW Test U-Stat	-2.229
WMW Critical Value (0.050)	1.645
P-Value	0.987

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 4 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Zinc - Area 4
Area of Concern Data: Zn-4
Background Data: Zn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	24	60
Number of Non-Detect Data	0	2
Number of Detect Data	24	58
Minimum Non-Detect	N/A	1.7
Maximum Non-Detect	N/A	2.9
Percent Non detects	0.00%	3.33%
Minimum Detected	22	4.8
Maximum Detected	8000	270
Mean of Detected Data	1408	66.26
Median of Detected Data	812.5	50.5
SD of Detected Data	1754	58.16

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	6.456
Critical z (0.95)	1.645
P-Value	5.38E-11

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Aluminum - Area 5
Area of Concern Data: Al-5
Background Data: Al-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	13000	560
Maximum Detected	32600	61000
Mean of Detected Data	27175	19603
Median of Detected Data	30000	17500
SD of Detected Data	6875	12019

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	394.5
WMW Test U-Stat	2.246
WMW Critical Value (0.050)	1.645
P-Value	0.0123

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Antimony - Area 5
Area of Concern Data: Sb-5
Background Data: Sb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	0.3	0.096
Maximum Detected	9.3	46
Mean of Detected Data	3.073	4.361
Median of Detected Data	0.45	1.35
SD of Detected Data	3.817	9.143

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	273.5
WMW Test U-Stat	-0.0571
WMW Critical Value (0.050)	1.645
P-Value	0.523

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Arsenic - Area 5
Area of Concern Data: As-5
Background Data: As-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	8.8	1.5
Maximum Detected	347	700
Mean of Detected Data	110.2	101.5
Median of Detected Data	24	48
SD of Detected Data	135	142.1

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	272
WMW Test U-Stat	-0.0857
WMW Critical Value (0.050)	1.645
P-Value	0.534

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Barium - Area 5
Area of Concern Data: Ba-5
Background Data: Ba-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	31	2.9
Maximum Detected	120	120
Mean of Detected Data	70.2	38.24
Median of Detected Data	63.5	32.6
SD of Detected Data	31.54	25.77

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	415
WMW Test U-Stat	2.636
WMW Critical Value (0.050)	1.645
P-Value	0.00419

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Beryllium - Area 5
Area of Concern Data: Be-5
Background Data: Be-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	5	60
Number of Non-Detect Data	0	8
Number of Detect Data	5	52
Minimum Non-Detect	N/A	0.023
Maximum Non-Detect	N/A	0.3
Percent Non detects	0.00%	13.33%
Minimum Detected	0.38	0.055
Maximum Detected	0.93	0.94
Mean of Detected Data	0.574	0.293
Median of Detected Data	0.54	0.245
SD of Detected Data	0.214	0.223

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	2.888
Critical z (0.95)	1.645
P-Value	0.00194

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cadmium - Area 5
Area of Concern Data: Cd-5
Background Data: Cd-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	0.2	0.051
Maximum Detected	1	1.13
Mean of Detected Data	0.384	0.352
Median of Detected Data	0.255	0.255
SD of Detected Data	0.277	0.27

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	303
WMW Test U-Stat	0.504
WMW Critical Value (0.050)	1.645
P-Value	0.307

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Chromium - Area 5
Area of Concern Data: Cr-5
Background Data: Cr-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	29.4	0.9
Maximum Detected	140	100
Mean of Detected Data	76.43	29.52
Median of Detected Data	76	25.5
SD of Detected Data	41.08	23.94

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	449.5
WMW Test U-Stat	3.293
WMW Critical Value (0.050)	1.645
P-Value	0.000496

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Cobalt - Area 5
Area of Concern Data: Co-5
Background Data: Co-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	5	60
Number of Non-Detect Data	0	0
Number of Detect Data	5	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	18	0.56
Maximum Detected	33	50
Mean of Detected Data	24.8	9.055
Median of Detected Data	21	5.45
SD of Detected Data	6.723	9.64

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	288.5
WMW Test U-Stat	3.028
WMW Critical Value (0.050)	1.645
P-Value	0.00123

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Copper - Area 5
Area of Concern Data: Cu-5
Background Data: Cu-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	65	1.1
Maximum Detected	159	480
Mean of Detected Data	92.23	56.64
Median of Detected Data	85.9	25.1
SD of Detected Data	30.15	88.61

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	436.5
WMW Test U-Stat	3.046
WMW Critical Value (0.050)	1.645
P-Value	0.00116

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Iron - Area 5
Area of Concern Data: Fe-5
Background Data: Fe-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	13	60
Number of Non-Detect Data	0	0
Number of Detect Data	13	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	15000	2300
Maximum Detected	53000	56000
Mean of Detected Data	37777	25905
Median of Detected Data	38000	27150
SD of Detected Data	12202	12156

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	695.5
WMW Test U-Stat	3.086
WMW Critical Value (0.050)	1.645
P-Value	0.00102

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Lead - Area 5
Area of Concern Data: Pb-5
Background Data: Pb-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	9.8	1
Maximum Detected	80.6	210
Mean of Detected Data	30.1	32.89
Median of Detected Data	13	19.15
SD of Detected Data	27.2	40.98

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	281
WMW Test U-Stat	0.0857
WMW Critical Value (0.050)	1.645
P-Value	0.466

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Manganese - Area 5
Area of Concern Data: Mn-5
Background Data: Mn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	240	10
Maximum Detected	1300	2400
Mean of Detected Data	877.1	479.3
Median of Detected Data	970	225
SD of Detected Data	332.2	534.3

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	408.5
WMW Test U-Stat	2.513
WMW Critical Value (0.050)	1.645
P-Value	0.00599

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Mercury - Area 5
Area of Concern Data: Hg-5
Background Data: Hg-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	2
Number of Detect Data	8	58
Minimum Non-Detect	N/A	0.033
Maximum Non-Detect	N/A	0.057
Percent Non detects	0.00%	3.33%
Minimum Detected	0.064	0.0333
Maximum Detected	0.34	0.83
Mean of Detected Data	0.164	0.2
Median of Detected Data	0.14	0.14
SD of Detected Data	0.0978	0.189

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	0.0571
Critical z (0.95)	1.645
P-Value	0.477

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Nickel - Area 5
Area of Concern Data: Ni-5
Background Data: Ni-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	0
Number of Detect Data	8	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	15.6	0.68
Maximum Detected	260	320
Mean of Detected Data	116.7	24.8
Median of Detected Data	110	10.6
SD of Detected Data	95.79	45.94

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	458.5
WMW Test U-Stat	3.464
WMW Critical Value (0.050)	1.645
P-Value	0.000266

Conclusion with Alpha = 0.05
Reject H0, Conclude Site > Background
P-Value < alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Selenium - Area 5
Area of Concern Data: Se-5
Background Data: Se-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	5	60
Number of Non-Detect Data	0	13
Number of Detect Data	5	47
Minimum Non-Detect	N/A	0.21
Maximum Non-Detect	N/A	6
Percent Non detects	0.00%	21.67%
Minimum Detected	0.71	0.3
Maximum Detected	1.1	3.8
Mean of Detected Data	0.89	0.989
Median of Detected Data	0.84	0.91
SD of Detected Data	0.154	0.623

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	0.756
Critical z (0.95)	1.645
P-Value	0.225

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Silver - Area 5
Area of Concern Data: Ag-5
Background Data: Ag-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	5	60
Number of Non-Detect Data	0	8
Number of Detect Data	5	52
Minimum Non-Detect	N/A	0.5
Maximum Non-Detect	N/A	0.5
Percent Non detects	0.00%	13.33%
Minimum Detected	0.08	0.11
Maximum Detected	0.14	3.5
Mean of Detected Data	0.0982	0.554
Median of Detected Data	0.087	0.425
SD of Detected Data	0.0245	0.556

Wilcoxon-Mann-Whitney Site vs Background Test
All observations <= 0.5 (Max DL) are ranked the same
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	110
WMW Test U-Stat	-1.366
WMW Critical Value (0.050)	1.645
P-Value	0.914

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Thallium - Area 5
Area of Concern Data: Tl-5
Background Data: Tl-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	5	60
Number of Non-Detect Data	0	40
Number of Detect Data	5	20
Minimum Non-Detect	N/A	0.12
Maximum Non-Detect	N/A	1.5
Percent Non detects	0.00%	66.67%
Minimum Detected	0.13	0.13
Maximum Detected	0.23	0.33
Mean of Detected Data	0.168	0.249
Median of Detected Data	0.14	0.265
SD of Detected Data	0.0482	0.0594

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	-0.137
Critical z (0.95)	1.645
P-Value	0.555

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Wilcoxon-Mann-Whitney Site vs Background Comparison Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference (S)	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Vanadium - Area 5
Area of Concern Data: V-5
Background Data: V-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	5	60
Number of Non-Detect Data	0	0
Number of Detect Data	5	60
Minimum Non-Detect	N/A	N/A
Maximum Non-Detect	N/A	N/A
Percent Non detects	0.00%	0.00%
Minimum Detected	14	7
Maximum Detected	97	120
Mean of Detected Data	71.4	55.36
Median of Detected Data	81	56.75
SD of Detected Data	34.11	24.07

Wilcoxon-Mann-Whitney Site vs Background Test
Wilcoxon-Mann-Whitney (WMW) Test

H0: Mean/Median of Site or AOC <= Mean/Median of Background

Site Rank Sum W-Stat	229
WMW Test U-Stat	1.563
WMW Critical Value (0.050)	1.645
P-Value	0.059

Conclusion with Alpha = 0.05
Do Not Reject H0, Conclude Site <= Background
P-Value >= alpha (0.05)

Gehan Site vs Background Comparison Hypothesis Test for Data Sets with Non-Detects

User Selected Options

From File	C:\Users\admin\Desktop\background x area 5 data.wst
Full Precision	OFF
Confidence Coefficient	95%
Substantial Difference	0
Selected Null Hypothesis	Site or AOC Mean/Median Less Than or Equal to Background Mean/Median (Form 1)
Alternative Hypothesis	Site or AOC Mean/Median Greater Than Background Mean/Median

Zinc - Area 5
Area of Concern Data: Zn-5
Background Data: Zn-bkgd

Raw Statistics

	Site	Background
Number of Valid Data	8	60
Number of Non-Detect Data	0	2
Number of Detect Data	8	58
Minimum Non-Detect	N/A	1.7
Maximum Non-Detect	N/A	2.9
Percent Non detects	0.00%	3.33%
Minimum Detected	31	4.8
Maximum Detected	192	270
Mean of Detected Data	99.88	66.26
Median of Detected Data	82.5	50.5
SD of Detected Data	52.3	58.16

Site vs Background Gehan Test

H0: Mean/Median of Site or AOC <= Mean/Median of background

Gehan z Test Value	2.132
Critical z (0.95)	1.645
P-Value	0.0165

Conclusion with Alpha = 0.05

Reject H0, Conclude Site > Background

P-Value < alpha (0.05)

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ATTACHMENT E
ALTERNATIVE WILDLIFE TOXICITY REFERENCE VALUE DATA

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Attachment E - Alternative Toxicity Reference Value Data for Mammalian and Avian Receptors (mg/kg body weight/day)[a]

Arsenic		Antimony		Barium		Beryllium		Cadmium		Chromium[b]		Cobalt		Copper		Lead		Manganese		Nickel		Selenium		Silver		Vanadium		Zinc	
Mammalian	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**	**Mammalian**	**Avian**
3	NA	0.59	NA	198	NA	NA	NA	15.6	2.37	40	2.78	20	7.8	6.79	12.1	7	1.94	71	431	3.31	11.5	0.145	0.368	NA	NA	8.31	0.413	82.3	98.8
48		42		499				4.88	2.37	82.9	75.4	10.9	8.2	136	19.5	5	3.26	620	348	2.71	17.9	0.768	0.425			11	0.524	75.9	105
1.66		161		121				10	2.4	98.7	2.78	33	8.59	136	23.3	26	4.04	415	356	3.4	30.2	0.776	0.429			5.11	1.98	452	66.5
5.62		161		436				10	21.1	12	2.78	12.72	148	9.34	34	6	126	2139	349.6	171	31.5	0.763	0.438			6.85	1.98	2514	76.7
5.69		835		121				2.28	21.1	28	**3**	**3**	11.5	19.6	25.5	10	135	144	**3**	327	47	1.51	0.412			8.31	2.5	4927	123
9.42		17.154		197				4.5	7.08	40			26.7	26.9	28	74.9	15.6	71		6.8	39.9	6.03	0.546			8.31	14.8	4878	84.8
32.4		**5**		436				40	3.3	60.6			8	27.6	29	45	59.3	65		22	14.7	25.4	1.29			17.9	0.489	103	86.6
10.7				121				54	4.66	67.4			**6**	51.6	30.7	170	61.4	119		6.55	**6**	6.39	2.58			6.154	0.589	87.1	105
19.7				**7**				10	3.44	82.8				45.7	44.8	180	71	223		14.6		0.265	0.37			**7**	0.688	2514	111
20.6								18.4	3.44	82.9				101	45	63.2	111	271		91.1		0.763	0.721				1.42	4927	106
3								75	37.6	123				99.6	29.9	111	112	71		47.4		0.157	0.408				1.42	4878	111
5.62								1	14.3	60.6				64	54.4	54.6	126	71		23.4		0.273	0.426				2.26	2838	112
5.62								1	30.6	121				165	40.6	82	67.4	**11**		309		0.215	0.859				1.98	87.1	150
4.5								1.6	44.6	30.4				183	47.5	285	125			112		0.273	1.23				1.59	99.5	114
7.5								1.3	2.379	**13**				293	40.1	270	123			171		0.304	1.73				3.05	4927	172
19.3								4	**14**					358	50	150	25			148		0.221	1.44				2.51	84.22	174
20								0.909						400	318	1440	625			309		0.33	4.53				6.13	**15**	185
48								1.2						988	4.68	506	320			3.364		0.51	4.94				4.08		145
3								1.6						1740	7.67	506	3.806			**17**		0.548	2.9				3.58		149
18								7.7						3400	46.6	552	**18**					0.435	3.48				5.74		194
								10						4670	42.9	587						0.47	4.26				2.15		286
								5.2						47500	42.9	1500						0.34	8.32				1.92		297
								10.8						9.34	19	5						0.58	11.5				4.294		232
								6.13						19.6	51.6	13						0.521	11.9				4.99		237
								10.6						32.5	24.3	8.9						0.54	0.371				5.74		354
								10						35	26.6	28.2						0.712	0.579				5.74		503
								15.4						111	28.7	29						0.489	0.823				11.5		480
								12.1						101	28.7	532						0.564	1.13				10.6		87.1
								8.71						183	28.7	50.4						0.747	1.14				0.5695		219
								44.4						400	28.7	163						0.523	4.19				**28**		286
								54						548	28.7	180						0.768	1.4						239
								15.2						3400	25.8	178						0.776	4.53						366
								17.1						19.6	24.7	225						0.763	4.8						503
								85.9						**32**	33.4	383						0.567	2.44						491
								100							25.8	1360						0.577	4.94						86.75
								4.99							31.1	508						0.869	4.75						**34**
								40							35.5	373						0.869	6.08						
								2160							28	460						0.869	6.14						
								1.27							37.1	800						1.31	12.3						
								38							30.5	800						0.904	6.99						
															30.7	1264						1.54	7.98						
															42.7	2530						1.21	11.7						
															42.9	8						0.88	29						
															34	50.4						1.51	0.4146						
															44.8	42.4						1.23	**43**						
															34.1	43						1.21							
															30.7	163						1.62							
															29.9	800						1.59							
															31	800						1.59							
															35.2	2400						2.27							
															40.4	8.81						6.39							
															35.3	**50**						20							
															57.4							0.385							
															59.3							0.168							
															43.3							0.435							
															51.9							0.435							
															63.9							0.54							
															74.2							0.763							
															55.9							1.28							
															109							0.869							
															120							0.869							
															16.3							0.632							
															28.7							0.769							
															28.7							0.72							
															57.4							0.733							
															57.4							0.892							
															43.3							1.19							
															120							0.98							
															122							1.71							
															24.1							1.81							
															69							2.28							
																						5.96							
																						4.55							
																						4.57							
																						6							
																						6.36							
																						6.39							
																						20							
																						0.2947							
																						78							

- Highlighted cells are the 10th percentile value of the toxicological data.
- Bolded values are the number of observations in the dataset.

NA - Insufficient toxicological data were available.

a The alternative TRVs are bounded lowest observed adverse effect levels (LOAELs) for growth, reproduction, and survival endpoints from EPA's EcoSSLs documents (available online at http://www.epa.gov/ecotox/ecossl/).

b EPA (2005a) derived TRVs for two forms of chromium (chomium III and chromium VI) because chromium may exist in either state depending on soil conditions. However, no toxicological data were available for chromium III for mammals and chromium VI for birds. Therefore, the data shown here are for chromium III for birds and chromium VI for mammals.

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APPENDIX D
PROUCL OUTPUT FILES FOR BACKGROUND CONCENTRATIONS

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Appendix D ProUCL Output Files for Background Concentrations

General Background Statistics for Data Sets with Non-Detects

User Selected Options

From File	L:\Project Notebook\17800-06 Monte Cristo RI\ProUCL_ajg\background.wst
Full Precision	OFF
Confidence Coefficient	80%
Coverage	90%
Different or Future K Values	1
Number of Bootstrap Operations	2000

Aluminum

General Statistics

Total Number of Observations	60	Number of Distinct Observations	40
Tolerance Factor	1.437		

Raw Statistics

Minimum	560
Maximum	61000
Second Largest	56000
First Quartile	10700
Median	17500
Third Quartile	27000
Mean	19603
Geometric Mean	15545
SD	12019
Coefficient of Variation	0.613
Skewness	1.101

Log-Transformed Statistics

Minimum	6.328
Maximum	11.02
Second Largest	10.93
First Quartile	9.277
Median	9.77
Third Quartile	10.2
Mean	9.651
SD	0.797

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.103
Lilliefors Critical Value	0.114

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.131
Lilliefors Critical Value	0.114

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

Assuming Lognormal Distribution

80% UTL with 90% Coverage	36876
80% UPL (t)	29877
80% Percentile (z)	29719
90% Percentile (z)	35006
95% Percentile (z)	39373
99% Percentile (z)	47564

80% UTL with 90% Coverage	48839
80% UPL (t)	30712
80% Percentile (z)	30391
90% Percentile (z)	43147
95% Percentile (z)	57628
99% Percentile (z)	99176

Gamma Distribution Test

k star	2.204
Theta Star	8895
MLE of Mean	19603
MLE of Standard Deviation	13205
nu star	264.5
A-D Test Statistic	0.382
5% A-D Critical Value	0.761
K-S Test Statistic	0.0817
5% K-S Critical Value	0.116

Data appear Gamma Distributed at 5% Significance Level

Data Distribution Test

Data appear Normal at 5% Significance Level

Nonparametric Statistics

90% Percentile	32200
95% Percentile	38050
99% Percentile	58050
80% Percentile	28200
80% UTL with 90% Coverage	35000
80% Percentile Bootstrap UTL with 90% Coverage	35000
80% BCA Bootstrap UTL with 90% Coverage	34100
80% UPL	28800
80% Chebyshev UPL	43841
Upper Threshold Limit Based upon IQR	51450

Assuming Gamma Distribution

90% Percentile	37271
95% Percentile	45105
99% Percentile	62381
80% Percentile	29013
80% WH Approx. Gamma UPL	29128
80% HW Approx. Gamma UPL	29289
80% WH Approx. Gamma UTL with 90% Coverage	39987
80% HW Approx. Gamma UTL with 90% Coverage	41246

Antimony

General Statistics

Total Number of Observations	60
Number of Distinct Observations	51
Tolerance Factor	1.437

Raw Statistics

Minimum	0.096
Maximum	46
Second Largest	43
First Quartile	0.355
Median	1.35
Third Quartile	2.925
Mean	4.361
Geometric Mean	1.268
SD	9.143
Coefficient of Variation	2.096
Skewness	3.501

Log-Transformed Statistics

Minimum	-2.343
Maximum	3.829
Second Largest	3.761
First Quartile	-1.036
Median	0.299
Third Quartile	1.073
Mean	0.238
SD	1.531

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.326
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.137
Lilliefors Critical Value	0.114

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	17.5
80% UPL (t)	12.18
80% Percentile (z)	12.06
90% Percentile (z)	16.08
95% Percentile (z)	19.4
99% Percentile (z)	25.63

Assuming Lognormal Distribution

80% UTL with 90% Coverage	11.44
80% UPL (t)	4.693
80% Percentile (z)	4.6
90% Percentile (z)	9.019
95% Percentile (z)	15.73
99% Percentile (z)	44.63

Gamma Distribution Test

k star	0.498
Theta Star	8.76
MLE of Mean	4.361
MLE of Standard Deviation	6.181
nu star	59.75
A-D Test Statistic	3.016
5% A-D Critical Value	0.815
K-S Test Statistic	0.177
5% K-S Critical Value	0.121

Data Distribution Test

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

90% Percentile	8.203
95% Percentile	20.55
99% Percentile	44.23

Data not Gamma Distributed at 5% Significance Level

80% Percentile	4.136

Assuming Gamma Distribution

90% Percentile	11.81
95% Percentile	16.78
99% Percentile	29
80% Percentile	7.162
80% WH Approx. Gamma UPL	6.377
80% HW Approx. Gamma UPL	5.859
80% WH Approx. Gamma UTL with 90% Coverage	11.74
80% HW Approx. Gamma UTL with 90% Coverage	11.36

80% UTL with 90% Coverage	16.7
80% Percentile Bootstrap UTL with 90% Coverage	16.7
80% BCA Bootstrap UTL with 90% Coverage	16.7
80% UPL	4.244
80% Chebyshev UPL	22.8
Upper Threshold Limit Based upon IQR	6.78

Arsenic

General Statistics

Total Number of Observations	60
Tolerance Factor	1.437
Number of Distinct Observations	48

Raw Statistics

Minimum	1.5
Maximum	700
Second Largest	430
First Quartile	14.75
Median	48
Third Quartile	110
Mean	101.5
Geometric Mean	41.72
SD	142.1
Coefficient of Variation	1.4
Skewness	2.25

Log-Transformed Statistics

Minimum	0.405
Maximum	6.551
Second Largest	6.064
First Quartile	2.691
Median	3.871
Third Quartile	4.7
Mean	3.731
SD	1.435

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.243
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.0833
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	305.6
80% UPL (t)	222.9
80% Percentile (z)	221
90% Percentile (z)	283.5
95% Percentile (z)	335.1
99% Percentile (z)	432

Assuming Lognormal Distribution

80% UTL with 90% Coverage	327.9
80% UPL (t)	142.2
80% Percentile (z)	139.6
90% Percentile (z)	262.3
95% Percentile (z)	441.8
99% Percentile (z)	1174

Gamma Distribution Test

k star	0.659
Theta Star	153.9
MLE of Mean	101.5
MLE of Standard Deviation	125
nu star	79.12
A-D Test Statistic	1.175
5% A-D Critical Value	0.799
K-S Test Statistic	0.139
5% K-S Critical Value	0.12

Data not Gamma Distributed at 5% Significance Level

Data Distribution Test

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

90% Percentile	335
95% Percentile	430
99% Percentile	540.7
80% Percentile	131.6

Assuming Gamma Distribution

90% Percentile	258.3
95% Percentile	352.9
99% Percentile	580
80% Percentile	167.1
80% WH Approx. Gamma UPL	161.3
80% HW Approx. Gamma UPL	155.2
80% WH Approx. Gamma UTL with 90% Coverage	276.5
80% HW Approx. Gamma UTL with 90% Coverage	280.2

80% UTL with 90% Coverage	400
80% Percentile Bootstrap UTL with 90% Coverage	400
80% BCA Bootstrap UTL with 90% Coverage	400
80% UPL	145.4
80% Chebyshev UPL	388
Upper Threshold Limit Based upon IQR	252.9

Barium

General Statistics

Total Number of Observations	60
Number of Distinct Observations	50

Tolerance Factor 1.437

Raw Statistics

Minimum	2.9
Maximum	120
Second Largest	84.1
First Quartile	18.25
Median	32.6
Third Quartile	53.25
Mean	38.24
Geometric Mean	29.16
SD	25.77
Coefficient of Variation	0.674
Skewness	0.811

Log-Transformed Statistics

Minimum	1.065
Maximum	4.787
Second Largest	4.432
First Quartile	2.901
Median	3.483
Third Quartile	3.975
Mean	3.373
SD	0.814

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.111
Lilliefors Critical Value	0.114

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.0855
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	75.28
80% UPL (t)	60.27
80% Percentile (z)	59.93
90% Percentile (z)	71.27
95% Percentile (z)	80.63
99% Percentile (z)	98.19

Assuming Lognormal Distribution

80% UTL with 90% Coverage	93.91
80% UPL (t)	58.47
80% Percentile (z)	57.84
90% Percentile (z)	82.75
95% Percentile (z)	111.2
99% Percentile (z)	193.6

Gamma Distribution Test

k star	1.907
Theta Star	20.05
MLE of Mean	38.24
MLE of Standard Deviation	27.69
nu star	228.8
A-D Test Statistic	0.318
5% A-D Critical Value	0.763

Data Distribution Test

Data appear Normal at 5% Significance Level

Nonparametric Statistics

90% Percentile	76.1

K-S Test Statistic	0.0743
5% K-S Critical Value	0.116

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	75.21
95% Percentile	92.08
99% Percentile	129.6
80% Percentile	57.57
80% WH Approx. Gamma UPL	57.82
80% HW Approx. Gamma UPL	57.78
80% WH Approx. Gamma UTL with 90% Coverage	81.28
80% HW Approx. Gamma UTL with 90% Coverage	83.3

95% Percentile	80.16
99% Percentile	98.82
80% Percentile	65.84
80% UTL with 90% Coverage	77
80% Percentile Bootstrap UTL with 90% Coverage	77
80% BCA Bootstrap UTL with 90% Coverage	77
80% UPL	65.96
80% Chebyshev UPL	90.21
Upper Threshold Limit Based upon IQR	105.8

Beryllium

General Statistics

Number of Valid Data	60
Number of Distinct Detected Data	43
Tolerance Factor	1.437
Number of Detected Data	52
Number of Non-Detect Data	8
Percent Non-Detects	13.33%

Raw Statistics

Minimum Detected	0.055
Maximum Detected	0.94
Mean of Detected	0.293
SD of Detected	0.223
Minimum Non-Detect	0.023
Maximum Non-Detect	0.3

Log-transformed Statistics

Minimum Detected	-2.9
Maximum Detected	-0.0619
Mean of Detected	-1.498
SD of Detected	0.76
Minimum Non-Detect	-3.772
Maximum Non-Detect	-1.204

Data with Multiple Detection Limits

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Single Detection Limit Scenario

Number treated as Non-Detect with Single DL	40
Number treated as Detected with Single DL	20
Single DL Non-Detect Percentage	66.67%

Background Statistics

Normal Distribution Test with Detected Values Only

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.142
5% Lilliefors Critical Value	0.123

Data not Normal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean		0.265
SD		0.22
80% UTL	90% Coverage	0.581
80% UPL (t)		0.453
80% Percentile (z)		0.45
90% Percentile (z)		0.547
95% Percentile (z)		0.626
99% Percentile (z)		0.776

Maximum Likelihood Estimate(MLE) Method

Mean		0.145
SD		0.343
80% UTL with	90% Coverage	0.638
80% UPL (t)		0.438
90% Percentile (z)		0.585
95% Percentile (z)		0.709
99% Percentile (z)		0.943
80% Percentile (z)		0.433

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.896
Theta Star	0.155
nu star	197.2
A-D Test Statistic	0.392
5% A-D Critical Value	0.763
K-S Test Statistic	0.0672
5% K-S Critical Value	0.125

Data appear Gamma Distributed at 5% Significance Level

Lilliefors Test Statistic	0.0787
5% Lilliefors Critical Value	0.123

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean (Log Scale)		-1.669
SD (Log Scale)		0.904
80% UTL	90% Coverage	0.691
80% UPL (t)		0.408
80% Percentile (z)		0.403
90% Percentile (z)		0.6
95% Percentile (z)		0.833
99% Percentile (z)		1.543

Log ROS Method

Mean in Original Scale		0.267
SD in Original Scale		0.219
80% UTL with	90% Coverage	0.631
80% BCA UTL with	90% Coverage	0.64
80% Bootstrap (%) UTL with	90% Coverage	0.64
80% UPL (t)		0.392
90% Percentile (z)		0.555
95% Percentile (z)		0.747
99% Percentile (z)		1.303
80% Percentile (z)		0.388

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean		0.267
SD		0.216
SE of Mean		0.0283
80% KM UTL with	90% Coverage	0.578

Assuming Gamma Distribution

Gamma ROS Statistics with Extrapolated Data

Mean	0.266
Median	0.205
SD	0.221
k star	0.686
Theta star	0.387
Nu star	82.36
80% Percentile of Chisquare (2k)	2.258
80% Percentile	0.437
95% Percentile	0.91
99% Percentile	1.485

80% KM Chebyshev UPL	0.703
80% KM UPL (t)	0.452
80% Percentile (z)	0.449
90% Percentile (z)	0.544
95% Percentile (z)	0.623
99% Percentile (z)	0.77

Gamma ROS Limits with Extrapolated Data

80% Wilson Hilferty (WH) Approx. Gamma UPL	0.437
80% Hawkins Wixley (HW) Approx. Gamma UPL	0.46
80% WH Approx. Gamma UTL with 90% Coverage	0.676
80% HW Approx. Gamma UTL with 90% Coverage	0.772

Note: DL/2 is not a recommended method.

Cadmium

General Statistics

Total Number of Observations	60
Tolerance Factor	1.437
Number of Distinct Observations	42

Raw Statistics

Minimum	0.051
Maximum	1.13
Second Largest	1.1
First Quartile	0.16
Median	0.255
Third Quartile	0.443
Mean	0.352
Geometric Mean	0.268
SD	0.27
Coefficient of Variation	0.767
Skewness	1.373

Log-Transformed Statistics

Minimum	-2.976
Maximum	0.122
Second Largest	0.0953
First Quartile	-1.833
Median	-1.367
Third Quartile	-0.815
Mean	-1.319
SD	0.767

Background Statistics

Normal Distribution Test

Lognormal Distribution Test

Lilliefors Test Statistic	0.182
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	0.74
80% UPL (t)	0.583
80% Percentile (z)	0.579
90% Percentile (z)	0.698
95% Percentile (z)	0.796
99% Percentile (z)	0.98

Gamma Distribution Test

k star	1.885
Theta Star	0.187
MLE of Mean	0.352
MLE of Standard Deviation	0.256
nu star	226.2
A-D Test Statistic	0.599
5% A-D Critical Value	0.763
K-S Test Statistic	0.0905
5% K-S Critical Value	0.116

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	0.694
95% Percentile	0.851
99% Percentile	1.199
80% Percentile	0.531
80% WH Approx. Gamma UPL	0.53
80% HW Approx. Gamma UPL	0.525
80% WH Approx. Gamma UTL with 90% Coverage	0.747
80% HW Approx. Gamma UTL with 90% Coverage	0.755

Lilliefors Test Statistic	0.0689
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Lognormal Distribution

80% UTL with 90% Coverage	0.805
80% UPL (t)	0.515
80% Percentile (z)	0.51
90% Percentile (z)	0.715
95% Percentile (z)	0.944
99% Percentile (z)	1.592

Data Distribution Test

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

90% Percentile	0.771
95% Percentile	0.953
99% Percentile	1.112
80% Percentile	0.55
80% UTL with 90% Coverage	0.9
80% Percentile Bootstrap UTL with 90% Coverage	0.9
80% BCA Bootstrap UTL with 90% Coverage	0.9
80% UPL	0.58
80% Chebyshev UPL	0.896
Upper Threshold Limit Based upon IQR	0.866

Calcium

General Statistics

Total Number of Observations	60	Number of Distinct Observations	49
Tolerance Factor	1.437		

Raw Statistics

Minimum	82
Maximum	4710
Second Largest	3930
First Quartile	287.5
Median	540
Third Quartile	953.8
Mean	911
Geometric Mean	575.7
SD	1008
Coefficient of Variation	1.106
Skewness	2.168

Log-Transformed Statistics

Minimum	4.407
Maximum	8.457
Second Largest	8.276
First Quartile	5.661
Median	6.292
Third Quartile	6.859
Mean	6.356
SD	0.949

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.244
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.0592
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	2359
80% UPL (t)	1772
80% Percentile (z)	1759
90% Percentile (z)	2202
95% Percentile (z)	2568
99% Percentile (z)	3255

Assuming Lognormal Distribution

80% UTL with 90% Coverage	2253
80% UPL (t)	1296
80% Percentile (z)	1280
90% Percentile (z)	1943
95% Percentile (z)	2744
99% Percentile (z)	5240

Gamma Distribution Test

k star	1.179
Theta Star	772.6
MLE of Mean	911
MLE of Standard Deviation	838.9
nu star	141.5

Data Distribution Test

Data appear Lognormal at 5% Significance Level

A-D Test Statistic	1.34
5% A-D Critical Value	0.774
K-S Test Statistic	0.124
5% K-S Critical Value	0.117

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	2014
95% Percentile	2576
99% Percentile	3866
80% Percentile	1445
80% WH Approx. Gamma UPL	1419
80% HW Approx. Gamma UPL	1383
80% WH Approx. Gamma UTL with 90% Coverage	2163
80% HW Approx. Gamma UTL with 90% Coverage	2165

Nonparametric Statistics

90% Percentile	1945
95% Percentile	3621
99% Percentile	4250
80% Percentile	1240
80% UTL with 90% Coverage	2680
80% Percentile Bootstrap UTL with 90% Coverage	2680
80% BCA Bootstrap UTL with 90% Coverage	2477
80% UPL	1360
80% Chebyshev UPL	2943
Upper Threshold Limit Based upon IQR	1953

Chromium

General Statistics

Total Number of Observations	60
Number of Distinct Observations	47
Tolerance Factor	1.437

Raw Statistics

Minimum	0.9
Maximum	100
Second Largest	93.5
First Quartile	9.925
Median	25.5
Third Quartile	42.73
Mean	29.52
Geometric Mean	20.05
SD	23.94
Coefficient of Variation	0.811
Skewness	1.09

Log-Transformed Statistics

Minimum	-0.105
Maximum	4.605
Second Largest	4.538
First Quartile	2.295
Median	3.238
Third Quartile	3.755
Mean	2.998
SD	0.982

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.125
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.106
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	63.92
80% UPL (t)	49.98
80% Percentile (z)	49.67
90% Percentile (z)	60.2
95% Percentile (z)	68.9
99% Percentile (z)	85.21

Assuming Lognormal Distribution

80% UTL with 90% Coverage	82.22
80% UPL (t)	46.41
80% Percentile (z)	45.82
90% Percentile (z)	70.57
95% Percentile (z)	100.8
99% Percentile (z)	196.9

Gamma Distribution Test

k star	1.376
Theta Star	21.46
MLE of Mean	29.52
MLE of Standard Deviation	25.17
nu star	165.1
A-D Test Statistic	0.311
5% A-D Critical Value	0.77
K-S Test Statistic	0.0897
5% K-S Critical Value	0.117

Data appear Gamma Distributed at 5% Significance Level

Data Distribution Test

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

90% Percentile	63.1
95% Percentile	77.2
99% Percentile	96.17
80% Percentile	47.7
80% UTL with 90% Coverage	71
80% Percentile Bootstrap UTL with 90% Coverage	71
80% BCA Bootstrap UTL with 90% Coverage	71
80% UPL	48.6
80% Chebyshev UPL	77.79
Upper Threshold Limit Based upon IQR	91.93

Assuming Gamma Distribution

90% Percentile	62.83
95% Percentile	79.17
99% Percentile	116.3
80% Percentile	46.1
80% WH Approx. Gamma UPL	46.23
80% HW Approx. Gamma UPL	46.03
80% WH Approx. Gamma UTL with 90% Coverage	68.42
80% HW Approx. Gamma UTL with 90% Coverage	70.39

Cobalt

General Statistics

Total Number of Observations	60	Number of Distinct Observations	51
Tolerance Factor	1.437		

Raw Statistics

Minimum	0.56
Maximum	50
Second Largest	34
First Quartile	2.383
Median	5.45
Third Quartile	11
Mean	9.055
Geometric Mean	5.604
SD	9.64
Coefficient of Variation	1.065
Skewness	2.104

Log-Transformed Statistics

Minimum	-0.58
Maximum	3.912
Second Largest	3.526
First Quartile	0.868
Median	1.696
Third Quartile	2.398
Mean	1.724
SD	1.007

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.191
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.073
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	22.91
80% UPL (t)	17.3
80% Percentile (z)	17.17
90% Percentile (z)	21.41
95% Percentile (z)	24.91
99% Percentile (z)	31.48

Assuming Lognormal Distribution

80% UTL with 90% Coverage	23.82
80% UPL (t)	13.25
80% Percentile (z)	13.08
90% Percentile (z)	20.37
95% Percentile (z)	29.37
99% Percentile (z)	58.33

Gamma Distribution Test

k star	1.133
Theta Star	7.993
MLE of Mean	9.055

Data Distribution Test

Data Follow Appr. Gamma Distribution at 5% Significance Level

MLE of Standard Deviation	8.508
nu star	135.9
A-D Test Statistic	0.832
5% A-D Critical Value	0.775
K-S Test Statistic	0.106
5% K-S Critical Value	0.118

Data follow Appx. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	20.22
95% Percentile	25.96
99% Percentile	39.19
80% Percentile	14.42
80% WH Approx. Gamma UPL	14.23
80% HW Approx. Gamma UPL	13.94
80% WH Approx. Gamma UTL with 90% Coverage	21.85
80% HW Approx. Gamma UTL with 90% Coverage	22.06

Nonparametric Statistics

90% Percentile	22.2
95% Percentile	28.15
99% Percentile	40.56
80% Percentile	13.06
80% UTL with 90% Coverage	28
80% Percentile Bootstrap UTL with 90% Coverage	28
80% BCA Bootstrap UTL with 90% Coverage	28
80% UPL	13.24
80% Chebyshev UPL	28.49
Upper Threshold Limit Based upon IQR	23.93

Copper

General Statistics

Total Number of Observations	60
Tolerance Factor	1.437
Number of Distinct Observations	47

Raw Statistics

Minimum	1.1
Maximum	480
Second Largest	400
First Quartile	15.75
Median	25.1
Third Quartile	51.65
Mean	56.64
Geometric Mean	29.41
SD	88.61
Coefficient of Variation	1.564

Log-Transformed Statistics

Minimum	0.0953
Maximum	6.174
Second Largest	5.991
First Quartile	2.756
Median	3.222
Third Quartile	3.944
Mean	3.381
SD	1.094

Skewness	3.312

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.292
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.127
Lilliefors Critical Value	0.114

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	184
80% UPL (t)	132.4
80% Percentile (z)	131.2
90% Percentile (z)	170.2
95% Percentile (z)	202.4
99% Percentile (z)	262.8

Assuming Lognormal Distribution

80% UTL with 90% Coverage	141.8
80% UPL (t)	74.95
80% Percentile (z)	73.88
90% Percentile (z)	119.6
95% Percentile (z)	177.9
99% Percentile (z)	375.1

Gamma Distribution Test

k star	0.859
Theta Star	65.91
MLE of Mean	56.64
MLE of Standard Deviation	61.1
nu star	103.1
A-D Test Statistic	3.086
5% A-D Critical Value	0.785
K-S Test Statistic	0.212
5% K-S Critical Value	0.119

Data not Gamma Distributed at 5% Significance Level

Data Distribution Test

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

90% Percentile	131
95% Percentile	204
99% Percentile	432.8
80% Percentile	76.2
80% UTL with 90% Coverage	190
80% Percentile Bootstrap UTL with 90% Coverage	190
80% BCA Bootstrap UTL with 90% Coverage	190
80% UPL	76.8
80% Chebyshev UPL	235.3
Upper Threshold Limit Based upon IQR	105.5

Assuming Gamma Distribution

90% Percentile	135.4
95% Percentile	179.1
99% Percentile	281.8
80% Percentile	92.17
80% WH Approx. Gamma UPL	87.36
80% HW Approx. Gamma UPL	83.36
80% WH Approx. Gamma UTL with 90% Coverage	141.4
80% HW Approx. Gamma UTL with 90% Coverage	138.8

Iron

General Statistics

Total Number of Observations	60	Number of Distinct Observations	45
Tolerance Factor	1.437		

Raw Statistics

Minimum	2300
Maximum	56000
Second Largest	55000
First Quartile	17750
Median	27150
Third Quartile	32250
Mean	25905
Geometric Mean	22225
SD	12156
Coefficient of Variation	0.469
Skewness	0.218

Log-Transformed Statistics

Minimum	7.741
Maximum	10.93
Second Largest	10.92
First Quartile	9.784
Median	10.21
Third Quartile	10.38
Mean	10.01
SD	0.636

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.0698
Lilliefors Critical Value	0.114

Data appear Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.177
Lilliefors Critical Value	0.114

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	43375
80% UPL (t)	36296
80% Percentile (z)	36136
90% Percentile (z)	41484
95% Percentile (z)	45900
99% Percentile (z)	54184

Assuming Lognormal Distribution

80% UTL with 90% Coverage	55463
80% UPL (t)	38289
80% Percentile (z)	37969
90% Percentile (z)	50235
95% Percentile (z)	63301
99% Percentile (z)	97666

Gamma Distribution Test

k star	3.261

Data Distribution Test

Data appear Normal at 5% Significance Level

Theta Star	7943
MLE of Mean	25905
MLE of Standard Deviation	14345
nu star	391.3

A-D Test Statistic	1.265
5% A-D Critical Value	0.756
K-S Test Statistic	0.141
5% K-S Critical Value	0.115

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	45140
95% Percentile	53091
99% Percentile	70250
80% Percentile	36584
80% WH Approx. Gamma UPL	36768
80% HW Approx. Gamma UPL	37018
80% WH Approx. Gamma UTL with 90% Coverage	48080
80% HW Approx. Gamma UTL with 90% Coverage	49362

Nonparametric Statistics

90% Percentile	40300
95% Percentile	46150
99% Percentile	55410
80% Percentile	35100
80% UTL with 90% Coverage	45000
80% Percentile Bootstrap UTL with 90% Coverage	45000
80% BCA Bootstrap UTL with 90% Coverage	45000
80% UPL	35400
80% Chebyshev UPL	50419
Upper Threshold Limit Based upon IQR	54000

Lead

General Statistics

Total Number of Observations	60
Number of Distinct Observations	47
Tolerance Factor	1.437

Raw Statistics

Minimum	1
Maximum	210
Second Largest	170
First Quartile	10
Median	19.15
Third Quartile	32.65
Mean	32.89
Geometric Mean	19.79

Log-Transformed Statistics

Minimum	0
Maximum	5.347
Second Largest	5.136
First Quartile	2.303
Median	2.951
Third Quartile	3.485
Mean	2.985
SD	1

SD	40.98
Coefficient of Variation	1.246
Skewness	2.777

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.259
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.0678
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	91.79
80% UPL (t)	67.92
80% Percentile (z)	67.38
90% Percentile (z)	85.41
95% Percentile (z)	100.3
99% Percentile (z)	128.2

Assuming Lognormal Distribution

80% UTL with 90% Coverage	83.23
80% UPL (t)	46.5
80% Percentile (z)	45.9
90% Percentile (z)	71.24
95% Percentile (z)	102.4
99% Percentile (z)	202.4

Gamma Distribution Test

k star	1.077
Theta Star	30.55
MLE of Mean	32.89
MLE of Standard Deviation	31.7
nu star	129.2
A-D Test Statistic	1.691
5% A-D Critical Value	0.777
K-S Test Statistic	0.141
5% K-S Critical Value	0.118

Data not Gamma Distributed at 5% Significance Level

Data Distribution Test

Data appear Lognormal at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	74.36
95% Percentile	96
99% Percentile	146
80% Percentile	52.6
80% WH Approx. Gamma UPL	51.2
80% HW Approx. Gamma UPL	49.69

Nonparametric Statistics

90% Percentile	67.4
95% Percentile	94.95
99% Percentile	186.4
80% Percentile	52.44
80% UTL with 90% Coverage	88
80% Percentile Bootstrap UTL with 90% Coverage	88
80% BCA Bootstrap UTL with 90% Coverage	88
80% UPL	52.86
80% Chebyshev UPL	115.5
Upper Threshold Limit Based upon IQR	66.63

80% WH Approx. Gamma UTL with 90% Coverage 79.26
80% HW Approx. Gamma UTL with 90% Coverage 79.04

Magnesium

General Statistics

Total Number of Observations	60	Number of Distinct Observations	53
Tolerance Factor	1.437		

Raw Statistics

Minimum	48
Maximum	22000
Second Largest	17000
First Quartile	962.5
Median	3050
Third Quartile	5600
Mean	4059
Geometric Mean	2079
SD	4180
Coefficient of Variation	1.03
Skewness	2.022

Log-Transformed Statistics

Minimum	3.871
Maximum	9.999
Second Largest	9.741
First Quartile	6.869
Median	8.023
Third Quartile	8.631
Mean	7.639
SD	1.418

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.169
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.156
Lilliefors Critical Value	0.114

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	10066
80% UPL (t)	7632
80% Percentile (z)	7577
90% Percentile (z)	9416
95% Percentile (z)	10935
99% Percentile (z)	13783

Assuming Lognormal Distribution

80% UTL with 90% Coverage	15943
80% UPL (t)	6983
80% Percentile (z)	6854
90% Percentile (z)	12788
95% Percentile (z)	21402
99% Percentile (z)	56238

Gamma Distribution Test

k star	0.844
Theta Star	4811
MLE of Mean	4059
MLE of Standard Deviation	4419
nu star	101.2
A-D Test Statistic	0.37
5% A-D Critical Value	0.786
K-S Test Statistic	0.0804
5% K-S Critical Value	0.119

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	9744
95% Percentile	12919
99% Percentile	20385
80% Percentile	6613
80% WH Approx. Gamma UPL	6640
80% HW Approx. Gamma UPL	6623
80% WH Approx. Gamma UTL with 90% Coverage	10699
80% HW Approx. Gamma UTL with 90% Coverage	11272

Data Distribution Test

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

90% Percentile	8642
95% Percentile	10840
99% Percentile	19050
80% Percentile	5800
80% UTL with 90% Coverage	10000
80% Percentile Bootstrap UTL with 90% Coverage	10000
80% BCA Bootstrap UTL with 90% Coverage	10000
80% UPL	6100
80% Chebyshev UPL	12489
Upper Threshold Limit Based upon IQR	12556

Manganese

General Statistics

Total Number of Observations	60
Tolerance Factor	1.437
Number of Distinct Observations	53

Raw Statistics

Minimum	10
Maximum	2400
Second Largest	1800
First Quartile	94.75
Median	225
Third Quartile	677.3

Log-Transformed Statistics

Minimum	2.303
Maximum	7.783
Second Largest	7.496
First Quartile	4.551
Median	5.414
Third Quartile	6.518

Mean	479.3
Geometric Mean	247.2
SD	534.3
Coefficient of Variation	1.115
Skewness	1.582

Mean	5.51
SD	1.26

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.198
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.0741
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	1247
80% UPL (t)	936
80% Percentile (z)	929
90% Percentile (z)	1164
95% Percentile (z)	1358
99% Percentile (z)	1722

Assuming Lognormal Distribution

80% UTL with 90% Coverage	1511
80% UPL (t)	725.6
80% Percentile (z)	713.7
90% Percentile (z)	1242
95% Percentile (z)	1963
99% Percentile (z)	4633

Gamma Distribution Test

k star	0.852
Theta Star	562.8
MLE of Mean	479.3
MLE of Standard Deviation	519.3
nu star	102.2
A-D Test Statistic	0.793
5% A-D Critical Value	0.785
K-S Test Statistic	0.121
5% K-S Critical Value	0.119

Data not Gamma Distributed at 5% Significance Level

Data Distribution Test

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

90% Percentile	1300
95% Percentile	1510
99% Percentile	2046
80% Percentile	956

Assuming Gamma Distribution

90% Percentile	1148
95% Percentile	1520
99% Percentile	2395
80% Percentile	780.4

80% UTL with 90% Coverage	1400
80% Percentile Bootstrap UTL with 90% Coverage	1400
80% BCA Bootstrap UTL with 90% Coverage	1310
80% UPL	974
80% Chebyshev UPL	1557

80% WH Approx. Gamma UPL	771.3
80% HW Approx. Gamma UPL	755.1
80% WH Approx. Gamma UTL with 90% Coverage	1250
80% HW Approx. Gamma UTL with 90% Coverage	1280

Upper Threshold Limit Based upon IQR	1551

Mercury

General Statistics

Number of Valid Data	60	Number of Detected Data	58
Number of Distinct Detected Data	42	Number of Non-Detect Data	2
Tolerance Factor	1.437	Percent Non-Detects	3.33%

Raw Statistics

Minimum Detected	0.0333
Maximum Detected	0.83
Mean of Detected	0.2
SD of Detected	0.189
Minimum Non-Detect	0.033
Maximum Non-Detect	0.057

Log-transformed Statistics

Minimum Detected	-3.402
Maximum Detected	-0.186
Mean of Detected	-1.922
SD of Detected	0.766
Minimum Non-Detect	-3.411
Maximum Non-Detect	-2.865

Data with Multiple Detection Limits

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Single Detection Limit Scenario

Number treated as Non-Detect with Single DL	8
Number treated as Detected with Single DL	52
Single DL Non-Detect Percentage	13.33%

Background Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.221
5% Lilliefors Critical Value	0.116

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.0741
5% Lilliefors Critical Value	0.116

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	0.194
SD	0.189
80% UTL 90% Coverage	0.466

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean (Log Scale)	-1.985
SD (Log Scale)	0.83
80% UTL 90% Coverage	0.453

80% UPL (t)	0.356
80% Percentile (z)	0.353
90% Percentile (z)	0.436
95% Percentile (z)	0.505
99% Percentile (z)	0.634

Maximum Likelihood Estimate(MLE) Method

Mean	0.18
SD	0.206
80% UTL with 90% Coverage	0.476

80% UPL (t)	0.356
90% Percentile (z)	0.444
95% Percentile (z)	0.518
99% Percentile (z)	0.659
80% Percentile (z)	0.353

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.667
Theta Star	0.12
nu star	193.3

A-D Test Statistic	1.484
5% A-D Critical Value	0.766
K-S Test Statistic	0.117
5% K-S Critical Value	0.119

Data follow Appx. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics with Extrapolated Data

Mean	0.193
Median	0.135
SD	0.19
k star	0.837
Theta star	0.231
Nu star	100.4
80% Percentile of Chisquare (2k)	2.728

80% UPL (t)	0.279
80% Percentile (z)	0.276
90% Percentile (z)	0.398
95% Percentile (z)	0.538
99% Percentile (z)	0.947

Log ROS Method

Mean in Original Scale	0.194
SD in Original Scale	0.189
80% UTL with 90% Coverage	0.446
80% BCA UTL with 90% Coverage	0.56
80% Bootstrap (%) UTL with 90% Coverage	0.56
80% UPL (t)	0.278
90% Percentile (z)	0.393
95% Percentile (z)	0.528
99% Percentile (z)	0.918
80% Percentile (z)	0.275

Data Distribution Test with Detected Values Only

Data follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	0.195
SD	0.187
SE of Mean	0.0243
80% KM UTL with 90% Coverage	0.463
80% KM Chebyshev UPL	0.572
80% KM UPL (t)	0.355
80% Percentile (z)	0.352
90% Percentile (z)	0.434
95% Percentile (z)	0.502
99% Percentile (z)	0.63

Gamma ROS Limits with Extrapolated Data

80% Wilson Hilferty (WH) Approx. Gamma UPL	0.309
80% Hawkins Wixley (HW) Approx. Gamma UPL	0.318

		80% WH Approx. Gamma UTL with 90% Coverage	0.471
80% Percentile	0.315	80% HW Approx. Gamma UTL with 90% Coverage	0.514
95% Percentile	0.618		
99% Percentile	0.976		

Note: DL/2 is not a recommended method.

Nickel

General Statistics

Total Number of Observations	60	Number of Distinct Observations	52
Tolerance Factor	1.437		

Raw Statistics		Log-Transformed Statistics	
Minimum	0.68	Minimum	-0.386
Maximum	320	Maximum	5.768
Second Largest	130	Second Largest	4.868
First Quartile	5.275	First Quartile	1.663
Median	10.6	Median	2.36
Third Quartile	22.53	Third Quartile	3.115
Mean	24.8	Mean	2.475
Geometric Mean	11.88	SD	1.176
SD	45.94		
Coefficient of Variation	1.852		
Skewness	4.988		

Background Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.3	Lilliefors Test Statistic	0.0657
Lilliefors Critical Value	0.114	Lilliefors Critical Value	0.114
Data not Normal at 5% Significance Level		Data appear Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
80% UTL with 90% Coverage	90.82	80% UTL with 90% Coverage	64.35
80% UPL (t)	64.07	80% UPL (t)	32.45
80% Percentile (z)	63.46	80% Percentile (z)	31.95
90% Percentile (z)	83.67	90% Percentile (z)	53.6

95% Percentile (z)	100.4
99% Percentile (z)	131.7

Gamma Distribution Test

k star	0.776
Theta Star	31.96
MLE of Mean	24.8
MLE of Standard Deviation	28.15
nu star	93.14
A-D Test Statistic	1.862
5% A-D Critical Value	0.789
K-S Test Statistic	0.146
5% K-S Critical Value	0.119

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	60.75
95% Percentile	81.34
99% Percentile	130.1
80% Percentile	40.6
80% WH Approx. Gamma UPL	37.97
80% HW Approx. Gamma UPL	36.09
80% WH Approx. Gamma UTL with 90% Coverage	62.64
80% HW Approx. Gamma UTL with 90% Coverage	61.49

95% Percentile (z)	82.16
99% Percentile (z)	183.1

Data Distribution Test

Data appear Lognormal at 5% Significance Level

Nonparametric Statistics

90% Percentile	41.8
95% Percentile	82.45
99% Percentile	207.9
80% Percentile	31
80% UTL with 90% Coverage	71
80% Percentile Bootstrap UTL with 90% Coverage	71
80% BCA Bootstrap UTL with 90% Coverage	71
80% UPL	31
80% Chebyshev UPL	117.4
Upper Threshold Limit Based upon IQR	48.4

Potassium

General Statistics

Total Number of Observations	60
Tolerance Factor	1.437
Number of Distinct Observations	46

Raw Statistics

Minimum	39
Maximum	3290
Second Largest	2750

Log-Transformed Statistics

Minimum	3.664
Maximum	8.099
Second Largest	7.919

First Quartile	250
Median	357
Third Quartile	692.5
Mean	636
Geometric Mean	399.1
SD	659.1
Coefficient of Variation	1.036
Skewness	2.028

First Quartile	5.521
Median	5.878
Third Quartile	6.54
Mean	5.989
SD	1.017

Background Statistics

Normal Distribution Test

Lilliefors Test Statistic	0.234
Lilliefors Critical Value	0.114

Data not Normal at 5% Significance Level

Lognormal Distribution Test

Lilliefors Test Statistic	0.0895
Lilliefors Critical Value	0.114

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

80% UTL with 90% Coverage	1583
80% UPL (t)	1199
80% Percentile (z)	1191
90% Percentile (z)	1481
95% Percentile (z)	1720
99% Percentile (z)	2169

Assuming Lognormal Distribution

80% UTL with 90% Coverage	1722
80% UPL (t)	952.2
80% Percentile (z)	939.5
90% Percentile (z)	1470
95% Percentile (z)	2127
99% Percentile (z)	4254

Gamma Distribution Test

k star	1.163
Theta Star	546.8
MLE of Mean	636
MLE of Standard Deviation	589.8
nu star	139.6
A-D Test Statistic	1.178
5% A-D Critical Value	0.775
K-S Test Statistic	0.154
5% K-S Critical Value	0.118

Data not Gamma Distributed at 5% Significance Level

Data Distribution Test

Data appear Lognormal at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	1411

Nonparametric Statistics

90% Percentile	1410
95% Percentile	1853
99% Percentile	2971
80% Percentile	1216
80% UTL with 90% Coverage	1540
80% Percentile Bootstrap UTL with 90% Coverage	1540

95% Percentile	1807
99% Percentile	2717
80% Percentile	1010
80% WH Approx. Gamma UPL	999.2
80% HW Approx. Gamma UPL	981.8
80% WH Approx. Gamma UTL with 90% Coverage	1524
80% HW Approx. Gamma UTL with 90% Coverage	1545
80% BCA Bootstrap UTL with 90% Coverage	1504
80% UPL	1264
80% Chebyshev UPL	1965
Upper Threshold Limit Based upon IQR	1356

Selenium

General Statistics

Number of Valid Data	60
Number of Distinct Detected Data	34
Tolerance Factor	1.437
Number of Detected Data	47
Number of Non-Detect Data	13
Percent Non-Detects	21.67%

Raw Statistics

Minimum Detected	0.3
Maximum Detected	3.8
Mean of Detected	0.989
SD of Detected	0.623
Minimum Non-Detect	0.21
Maximum Non-Detect	6

Log-transformed Statistics

Minimum Detected	-1.204
Maximum Detected	1.335
Mean of Detected	-0.172
SD of Detected	0.57
Minimum Non-Detect	-1.561
Maximum Non-Detect	1.792

Data with Multiple Detection Limits

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Single Detection Limit Scenario

Number treated as Non-Detect with Single DL	60
Number treated as Detected with Single DL	0
Single DL Non-Detect Percentage	100.00%

Background Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.83
5% Shapiro Wilk Critical Value	0.946

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.972
5% Shapiro Wilk Critical Value	0.946

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean		0.867
SD		0.693
80% UTL	90% Coverage	1.863
80% UPL (t)		1.46
80% Percentile (z)		1.451
90% Percentile (z)		1.756
95% Percentile (z)		2.007
99% Percentile (z)		2.48

Maximum Likelihood Estimate(MLE) Method N/A

Mean (Log Scale)		-0.447
SD (Log Scale)		0.833
80% UTL	90% Coverage	2.118
80% UPL (t)		1.303
80% Percentile (z)		1.289
90% Percentile (z)		1.86
95% Percentile (z)		2.518
99% Percentile (z)		4.444

Log ROS Method

Mean in Original Scale		0.846
SD in Original Scale		0.619
Mean in Log Scale		-0.395
SD in Log Scale		0.685
80% UTL	90% Coverage	1.804
80% UPL (t)		1.21
90% Percentile (z)		1.621
95% Percentile (z)		2.079
99% Percentile (z)		3.317
80% Percentile (z)		1.199

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	3.065
Theta Star	0.323
nu star	288.1

A-D Test Statistic	0.382
5% A-D Critical Value	0.755
K-S Test Statistic	0.0807
5% K-S Critical Value	0.13

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics with Extrapolated Data

Mean	0.809
Median	0.72
SD	0.662
k star	0.347

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean		0.857
SD		0.61
SE of Mean		0.0803
80% KM UTL with	90% Coverage	1.733
80% KM Chebyshev UPL		2.087
80% KM UPL (t)		1.378
80% Percentile (z)		1.37
90% Percentile (z)		1.639
95% Percentile (z)		1.86
99% Percentile (z)		2.276

Theta star	2.33
Nu star	41.67
80% Percentile of Chisquare (2k)	1.098
80% Percentile	1.28
95% Percentile	3.528
99% Percentile	6.564

Gamma ROS Limits with Extrapolated Data

80% Wilson Hilferty (WH) Approx. Gamma UPL	1.438
80% Hawkins Wixley (HW) Approx. Gamma UPL	1.579
80% WH Approx. Gamma UTL with 90% Coverage	2.438
80% HW Approx. Gamma UTL with 90% Coverage	3.076

Note: DL/2 is not a recommended method.

Silver

General Statistics

Number of Valid Data	60	Number of Detected Data	52
Number of Distinct Detected Data	38	Number of Non-Detect Data	8
Tolerance Factor	1.437	Percent Non-Detects	13.33%

Raw Statistics

Minimum Detected	0.11
Maximum Detected	3.5
Mean of Detected	0.554
SD of Detected	0.556
Minimum Non-Detect	0.5
Maximum Non-Detect	0.5

Log-transformed Statistics

Minimum Detected	-2.207
Maximum Detected	1.253
Mean of Detected	-0.904
SD of Detected	0.77
Minimum Non-Detect	-0.693
Maximum Non-Detect	-0.693

Background Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.213
5% Lilliefors Critical Value	0.123

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.0823
5% Lilliefors Critical Value	0.123

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	0.513
SD	0.527
80% UTL 90% Coverage	1.271

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean (Log Scale)	-0.968
SD (Log Scale)	0.735
80% UTL 90% Coverage	1.092

80% UPL (t)	0.964
80% Percentile (z)	0.957
90% Percentile (z)	1.189
95% Percentile (z)	1.38
99% Percentile (z)	1.74

Maximum Likelihood Estimate(MLE) Method

Mean	0.101
SD	0.898
80% UTL with 90% Coverage	1.392

80% UPL (t)	0.869
90% Percentile (z)	1.252
95% Percentile (z)	1.579
99% Percentile (z)	2.191
80% Percentile (z)	0.857

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.661
Theta Star	0.333
nu star	172.7

A-D Test Statistic	0.874
5% A-D Critical Value	0.765
K-S Test Statistic	0.107
5% K-S Critical Value	0.125

Data follow Appx. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics with Extrapolated Data

Mean	0.522
Median	0.415
SD	0.53
k star	1.067
Theta star	0.489
Nu star	128
80% Percentile of Chisquare (2k)	3.416

80% UPL (t)	0.712
80% Percentile (z)	0.705
90% Percentile (z)	0.974
95% Percentile (z)	1.272
99% Percentile (z)	2.1

Log ROS Method

Mean in Original Scale	0.515
SD in Original Scale	0.528
80% UTL with 90% Coverage	1.116
80% BCA UTL with 90% Coverage	1.04
80% Bootstrap (%) UTL with 90% Coverage	1.3
80% UPL (t)	0.72
90% Percentile (z)	0.992
95% Percentile (z)	1.304
99% Percentile (z)	2.176
80% Percentile (z)	0.713

Data Distribution Test with Detected Values Only

Data follow Appr. Gamma Distribution at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method

Mean	0.516
SD	0.523
SE of Mean	0.0685
80% KM UTL with 90% Coverage	1.268
80% KM Chebyshev UPL	1.571
80% KM UPL (t)	0.964
80% Percentile (z)	0.957
90% Percentile (z)	1.187
95% Percentile (z)	1.377
99% Percentile (z)	1.734

Gamma ROS Limits with Extrapolated Data

80% Wilson Hilferty (WH) Approx. Gamma UPL	0.814
80% Hawkins Wixley (HW) Approx. Gamma UPL	0.824

		80% WH Approx. Gamma UTL with	90% Coverage 1.206
80% Percentile	0.835	80% HW Approx. Gamma UTL with	90% Coverage 1.275
95% Percentile	1.528		
99% Percentile	2.327		

Note: DL/2 is not a recommended method.

Sodium

General Statistics

Number of Valid Data	60	Number of Detected Data	52
Number of Distinct Detected Data	35	Number of Non-Detect Data	8
Tolerance Factor	1.437	Percent Non-Detects	13.33%

Raw Statistics

Minimum Detected	60
Maximum Detected	738
Mean of Detected	187.6
SD of Detected	153.7
Minimum Non-Detect	57
Maximum Non-Detect	100

Log-transformed Statistics

Minimum Detected	4.094
Maximum Detected	6.604
Mean of Detected	4.998
SD of Detected	0.647
Minimum Non-Detect	4.043
Maximum Non-Detect	4.605

Data with Multiple Detection Limits

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Single Detection Limit Scenario

Number treated as Non-Detect with Single DL	25
Number treated as Detected with Single DL	35
Single DL Non-Detect Percentage	41.67%

Background Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.289
5% Lilliefors Critical Value	0.123

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.184
5% Lilliefors Critical Value	0.123

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method	
Mean	167.1
SD	152.3

Assuming Lognormal Distribution

DL/2 Substitution Method	
Mean (Log Scale)	4.8
SD (Log Scale)	0.791

80% UTL	90% Coverage	386
	80% UPL (t)	297.3
	80% Percentile (z)	295.3
	90% Percentile (z)	362.3
	95% Percentile (z)	417.7
	99% Percentile (z)	521.5

Maximum Likelihood Estimate(MLE) Method

	Mean	113.7
	SD	209.1
80% UTL with	90% Coverage	414.1
	80% UPL (t)	292.4
	90% Percentile (z)	381.6
	95% Percentile (z)	457.6
	99% Percentile (z)	600
	80% Percentile (z)	289.6

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	2.149
Theta Star	87.3
nu star	223.5
A-D Test Statistic	2.803
5% A-D Critical Value	0.761
K-S Test Statistic	0.231
5% K-S Critical Value	0.125

Data not Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics with Extrapolated Data

Mean	162.8
Median	110
SD	156.5
k star	0.293
Theta star	555.5
Nu star	35.17

80% UTL	90% Coverage	378.4
	80% UPL (t)	238.8
	80% Percentile (z)	236.3
	90% Percentile (z)	334.6
	95% Percentile (z)	445.9
	99% Percentile (z)	764.3

Log ROS Method

Mean in Original Scale		168.2
SD in Original Scale		151.5
80% UTL with	90% Coverage	367.3
80% BCA UTL with	90% Coverage	472
80% Bootstrap (%) UTL with	90% Coverage	472
	80% UPL (t)	237.1
	90% Percentile (z)	326.8
	95% Percentile (z)	429.4
	99% Percentile (z)	716.8
	80% Percentile (z)	234.8

Data Distribution Test with Detected Values Only

Data do not follow a Discernable Distribution (0.05)

Nonparametric Statistics

Kaplan-Meier (KM) Method

	Mean	170.9
	SD	148
	SE of Mean	19.3
80% KM UTL with	90% Coverage	383.6
	80% KM Chebyshev UPL	469.4
	80% KM UPL (t)	297.4
	80% Percentile (z)	295.5
	90% Percentile (z)	360.6
	95% Percentile (z)	414.4
	99% Percentile (z)	515.2

Gamma ROS Limits with Extrapolated Data

80% Wilson Hilferty (WH) Approx. Gamma UPL	282.9

80% Percentile of Chisquare (2k)	0.894	80% Hawkins Wixley (HW) Approx. Gamma UPL	308.7
		80% WH Approx. Gamma UTL with 90% Coverage	475.9
80% Percentile	248.3	80% HW Approx. Gamma UTL with 90% Coverage	593
95% Percentile	750.4		
99% Percentile	1451		

Note: DL/2 is not a recommended method.

Thallium

General Statistics

Number of Valid Data	60	Number of Detected Data	20
Number of Distinct Detected Data	15	Number of Non-Detect Data	40
Tolerance Factor	1.437	Percent Non-Detects	66.67%

Raw Statistics

Minimum Detected	0.13
Maximum Detected	0.33
Mean of Detected	0.249
SD of Detected	0.0594
Minimum Non-Detect	0.12
Maximum Non-Detect	1.5

Log-transformed Statistics

Minimum Detected	-2.04
Maximum Detected	-1.109
Mean of Detected	-1.423
SD of Detected	0.265
Minimum Non-Detect	-2.12
Maximum Non-Detect	0.405

Data with Multiple Detection Limits

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Single Detection Limit Scenario

Number treated as Non-Detect with Single DL	60
Number treated as Detected with Single DL	0
Single DL Non-Detect Percentage	100.00%

Background Statistics

Normal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.93
5% Shapiro Wilk Critical Value	0.905

Data appear Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Shapiro Wilk Test Statistic	0.902
5% Shapiro Wilk Critical Value	0.905

Data not Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean	0.255

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean (Log Scale)	-1.717

	SD	0.237
80% UTL	90% Coverage	0.595
	80% UPL (t)	0.457
	80% Percentile (z)	0.454
	90% Percentile (z)	0.558
	95% Percentile (z)	0.644
	99% Percentile (z)	0.806

Maximum Likelihood Estimate(MLE) Method	N/A

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	13.87
Theta Star	0.0179
nu star	554.9
A-D Test Statistic	0.665
5% A-D Critical Value	0.741
K-S Test Statistic	0.163
5% K-S Critical Value	0.194

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics with Extrapolated Data

Mean	0.124
Median	0.114
SD	0.116
k star	0.204
Theta star	0.609

	SD (Log Scale)	0.807
80% UTL	90% Coverage	0.573
	80% UPL (t)	0.358
	80% Percentile (z)	0.354
	90% Percentile (z)	0.505
	95% Percentile (z)	0.678
	99% Percentile (z)	1.175

Log ROS Method	
Mean in Original Scale	0.178
SD in Original Scale	0.069
Mean in Log Scale	-1.797
SD in Log Scale	0.367
80% UTL 90% Coverage	0.281
80% UPL (t)	0.227
90% Percentile (z)	0.266
95% Percentile (z)	0.303
99% Percentile (z)	0.39
80% Percentile (z)	0.226

Data Distribution Test with Detected Values Only

Data appear Normal at 5% Significance Level

Nonparametric Statistics

Kaplan-Meier (KM) Method

	Mean	0.182
	SD	0.0678
	SE of Mean	0.0102
80% KM UTL with	90% Coverage	0.279
	80% KM Chebyshev UPL	0.319
	80% KM UPL (t)	0.24
	80% Percentile (z)	0.239
	90% Percentile (z)	0.269
	95% Percentile (z)	0.293
	99% Percentile (z)	0.339

Gamma ROS Limits with Extrapolated Data

Nu star	24.51	80% Wilson Hilferty (WH) Approx. Gamma UPL	0.221
80% Percentile of Chisquare (2k)	0.544	80% Hawkins Wixley (HW) Approx. Gamma UPL	0.229
		80% WH Approx. Gamma UTL with 90% Coverage	0.441
80% Percentile	0.166	80% HW Approx. Gamma UTL with 90% Coverage	0.556
95% Percentile	0.637		
99% Percentile	1.354		

Note: DL/2 is not a recommended method.

Vanadium

General Statistics

Total Number of Observations	60	Number of Distinct Observations	46
Tolerance Factor	1.437		

Raw Statistics		Log-Transformed Statistics	
Minimum	7	Minimum	1.946
Maximum	120	Maximum	4.787
Second Largest	110	Second Largest	4.7
First Quartile	37.5	First Quartile	3.624
Median	56.75	Median	4.039
Third Quartile	69.35	Third Quartile	4.239
Mean	55.36	Mean	3.891
Geometric Mean	48.96	SD	0.556
SD	24.07		
Coefficient of Variation	0.435		
Skewness	0.199		

Background Statistics

Normal Distribution Test		Lognormal Distribution Test	
Lilliefors Test Statistic	0.0467	Lilliefors Test Statistic	0.137
Lilliefors Critical Value	0.114	Lilliefors Critical Value	0.114
Data appear Normal at 5% Significance Level		Data not Lognormal at 5% Significance Level	

Assuming Normal Distribution		Assuming Lognormal Distribution	
80% UTL with 90% Coverage	89.95	80% UTL with 90% Coverage	108.9
80% UPL (t)	75.93	80% UPL (t)	78.77

80% Percentile (z)	75.62
90% Percentile (z)	86.2
95% Percentile (z)	94.95
99% Percentile (z)	111.3

80% Percentile (z)	78.2
90% Percentile (z)	99.89
95% Percentile (z)	122.3
99% Percentile (z)	178.6

Gamma Distribution Test

k star	4.026
Theta Star	13.75
MLE of Mean	55.36
MLE of Standard Deviation	27.59
nu star	483.1

A-D Test Statistic	0.801
5% A-D Critical Value	0.754
K-S Test Statistic	0.111
5% K-S Critical Value	0.115

Data follow Appx. Gamma Distribution at 5% Significance Level

Assuming Gamma Distribution

90% Percentile	92.35
95% Percentile	107.1
99% Percentile	138.7
80% Percentile	76.28
80% WH Approx. Gamma UPL	76.56
80% HW Approx. Gamma UPL	76.93
80% WH Approx. Gamma UTL with 90% Coverage	97.8
80% HW Approx. Gamma UTL with 90% Coverage	99.82

Data Distribution Test

Data appear Normal at 5% Significance Level

Nonparametric Statistics

90% Percentile	83.3
95% Percentile	89.3
99% Percentile	114.1
80% Percentile	75.48
80% UTL with 90% Coverage	87
80% Percentile Bootstrap UTL with 90% Coverage	87
80% BCA Bootstrap UTL with 90% Coverage	87
80% UPL	76.92
80% Chebyshev UPL	103.9
Upper Threshold Limit Based upon IQR	117.1

Zinc

General Statistics

Number of Valid Data	60
Number of Distinct Detected Data	49
Tolerance Factor	1.437

Number of Detected Data	58
Number of Non-Detect Data	2
Percent Non-Detects	3.33%

Raw Statistics

Log-transformed Statistics

Minimum Detected	4.8
Maximum Detected	270
Mean of Detected	66.26
SD of Detected	58.16
Minimum Non-Detect	1.7
Maximum Non-Detect	2.9

Minimum Detected	1.569
Maximum Detected	5.598
Mean of Detected	3.808
SD of Detected	0.932
Minimum Non-Detect	0.531
Maximum Non-Detect	1.065

Data with Multiple Detection Limits

Note: Data have multiple DLs - Use of KM Method is recommended
For all methods (except KM, DL/2, and ROS Methods),
Observations < Largest ND are treated as NDs

Single Detection Limit Scenario

Number treated as Non-Detect with Single DL	2
Number treated as Detected with Single DL	58
Single DL Non-Detect Percentage	3.33%

Background Statistics

Normal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.161
5% Lilliefors Critical Value	0.116

Data not Normal at 5% Significance Level

Lognormal Distribution Test with Detected Values Only

Lilliefors Test Statistic	0.0929
5% Lilliefors Critical Value	0.116

Data appear Lognormal at 5% Significance Level

Assuming Normal Distribution

DL/2 Substitution Method

Mean		64.09
SD		58.37
80% UTL	90% Coverage	148
	80% UPL (t)	114
	80% Percentile (z)	113.2
	90% Percentile (z)	138.9
	95% Percentile (z)	160.1
	99% Percentile (z)	199.9

Maximum Likelihood Estimate(MLE) Method

Mean		63.11
SD		59.36
80% UTL with	90% Coverage	148.4
	80% UPL (t)	113.9
	90% Percentile (z)	139.2
	95% Percentile (z)	160.8

Assuming Lognormal Distribution

DL/2 Substitution Method

Mean (Log Scale)		3.685
SD (Log Scale)		1.136
80% UTL	90% Coverage	203.8
	80% UPL (t)	105.2
	80% Percentile (z)	103.6
	90% Percentile (z)	170.8
	95% Percentile (z)	258.1
	99% Percentile (z)	559.8

Log ROS Method

Mean in Original Scale		64.2
SD in Original Scale		58.25
80% UTL with	90% Coverage	177
80% BCA UTL with	90% Coverage	160
80% Bootstrap (%) UTL with	90% Coverage	160
	80% UPL (t)	98.59
	90% Percentile (z)	151.4
	95% Percentile (z)	218.1

99% Percentile (z)	201.2
80% Percentile (z)	113.1

Gamma Distribution Test with Detected Values Only

k star (bias corrected)	1.378
Theta Star	48.08
nu star	159.9
A-D Test Statistic	0.423
5% A-D Critical Value	0.77
K-S Test Statistic	0.1
5% K-S Critical Value	0.119

Data appear Gamma Distributed at 5% Significance Level

Assuming Gamma Distribution

Gamma ROS Statistics with Extrapolated Data

Mean	64.05
Median	47
SD	58.41
k star	0.629
Theta star	101.8
Nu star	75.47
80% Percentile of Chisquare (2k)	2.073
80% Percentile	105.5
95% Percentile	226.6
99% Percentile	375.4

Note: DL/2 is not a recommended method.

99% Percentile (z)	432.7
80% Percentile (z)	97.3

Data Distribution Test with Detected Values Only

Data appear Gamma Distributed at 5% Significance Level

Nonparametric Statistics

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Mean	64.21
SD	57.75
SE of Mean	7.521
80% KM UTL with 90% Coverage	147.2
80% KM Chebyshev UPL	180.7
80% KM UPL (t)	113.6
80% Percentile (z)	112.8
90% Percentile (z)	138.2
95% Percentile (z)	159.2
99% Percentile (z)	198.6

Gamma ROS Limits with Extrapolated Data

80% Wilson Hilferty (WH) Approx. Gamma UPL	104.6
80% Hawkins Wixley (HW) Approx. Gamma UPL	108.1
80% WH Approx. Gamma UTL with 90% Coverage	163.4
80% HW Approx. Gamma UTL with 90% Coverage	181.2